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 S. Central Ave., Roxana, IL 62048

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

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

☐ LPC-160 Forms

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

☒ Groundwater Data (without LPC-160 Forms)

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

☐ Well Construction Information

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

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

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

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

☐ Gas Monitoring Reports

☐ Other (identify)

AECOM
1001 Highlands Plaza Drive West
Suite 300
St. Louis, MO 63110-1337
www.aecom.com

314 429 0100 tel
314 429 0462 fax

July 14, 2015

Mr. Steven F. Nightingale, P.E.
Manager, Permit Section
Illinois Environmental Protection Agency
Bureau of Land
1021 North Grand Avenue East
Springfield, Illinois 62794

Groundwater Monitoring Report – 2nd Quarter 2015
Roxana, Illinois
119115002 – Madison County
Equilon Enterprises LLC d/b/a Shell Oil Products US
Log No. B-43-CA-21

Dear Mr. Nightingale:

On behalf of Shell Oil Products US, AECOM (formerly URS Corporation) is submitting the enclosed report for your review. This sampling was required by Condition 7 of the Agency's letter dated August 5, 2010.

If you have any questions during your review, please contact Kevin Dyer, SOPUS Senior Principal Program Manager, at kevin.dyer@shell.com (618/288-7237), or Bob Billman at bob.billman@aecom.com (314/743-4108).

Sincerely,

AECOM, on behalf of Shell Oil Products US

Nicholas Eldred
Senior Project Manager

Robert B. Billman
Senior Project Manager

Enclosures: RCRA Facility Groundwater, Leachate and Gas Reporting Form, Report (original plus 1 copy)

cc: Kevin Dyer, SOPUS
Eric Petersen, Phillips 66
Amy Boley, IEPA, Springfield
Gina Search, IEPA, Collinsville
Thomas Tunnicliff, Atlantic Richfield Company
Shannon Haney, Greensfelder, Hemker & Gale P.C.
Repositories – Village Hall, Roxana Public Library, website

AECOM

Design and Consulting Services - Environmental

Submitted to : Illinois Environmental Protection Agency - Bureau of Land
1021 North Grand Ave. East
Springfield, IL 62794

Submitted by
AECOM
1001 Highlands Plaza Drive West, Suite 300
St. Louis, MO 63110

2nd Quarter 2015 Interim Groundwater Monitoring Report

Shell Oil Products US Roxana, Illinois

July 2015
Project 60400249

Table of Contents

1 Introduction 1-1
2 Groundwater Sampling and Analytical Procedures 2-1

2.1 Additional Activities or Modifications 2-1
2.2 Groundwater Monitoring Well Gauging and Sampling 2-1
2.3 Health & Safety, Decontamination, and Investigative Derived Waste 2-2
2.4 Groundwater Sample Handling and Laboratory Testing 2-3
2.5 Data Quality Review and Data Management 2-3

3 Groundwater Sampling Results 3-1

3.1 Groundwater Monitoring Well Gauging Results 3-1
3.2 Data Quality Review Results 3-2
3.3 Analytical Results and Discussion 3-2
3.4 Limitations 3-3

4 References 4-1

List of Tables

Table 1a Quarterly Groundwater Monitoring Well Gauging Results
Table 1b 2Q15 Weekly/Monthly Groundwater Monitoring Well Gauging Results
Table 2a Summary of Main Aquifer Groundwater Monitoring Well Field Parameters
Table 2b Summary of Perched Groundwater Monitoring Well Field Parameters
Table 3 Summary of Groundwater Monitoring Well Analytical Detections and Exceedances

List of Figures

Figure 1 2Q15 Investigation Area Location Map
Figure 2 2Q15 Groundwater Monitoring Well Sampling Locations
Figure 3a Groundwater Contours 2Q15
Figure 3b Groundwater Contours 2Q15-West Fenceline
Figure 4a 2Q15 Thickness of LNAPL-West Fenceline
Figure 4b 2Q15 Thickness of LNAPL
Figure 5 2Q15 Groundwater Monitoring Well Analytical Exceedances
Figure 6 2Q15 Dissolved Phase Benzene Concentrations in Groundwater
Figure 7 Cross-Section of Benzene 2Q15 Groundwater Analytical Results-Chaffer Street
Figure 8 Cross-Section of Benzene 2Q15 Groundwater Analytical Results-Roxana Public Works Yard

List of Appendices

Appendix A Groundwater Sampling Data Sheets
Appendix B Data Review Forms and Laboratory Analytical Reports

1 Introduction

AECOM (formerly USR Corporation (URS)) is submitting this report on behalf of Shell Oil Products US (SOPUS) for the 2nd Quarter 2015 (2Q15) groundwater monitoring well gauging and sampling conducted in the Village of Roxana, Illinois (**Figure 1**). 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)[1] 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)[2]. For purposes of presentation in this report only, the combined area is collectively referred to as the "Investigation Area."

In an August 5, 2010, letter from the Illinois Environmental Protection Agency (IEPA) to SOPUS (IEPA, 2010), IEPA requested various site characterization and monitoring activities, along with initiation of an interim groundwater monitoring program. This 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 SOPUS, IEPA, and URS to discuss the groundwater monitoring program and IEPA's general comments on the 4Q10 report. Subsequent modifications were incorporated during the 1st Quarter 2011 (1Q11) and 2nd Quarter 2011 (2Q11) Roxana Interim Groundwater Monitoring Program. Additional items/comments regarding the Roxana Interim Groundwater Monitoring Program were presented by IEPA in June 16, 2011 (IEPA, 2011a) and August 31, 2011 (IEPA, 2011b) letters. These items/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 have been added to the program and the results incorporated into this report.

In a second letter (CA-25), dated March 14, 2012, from IEPA to SOPUS (IEPA, 2012b), IEPA requested that perched groundwater be evaluated at the following existing 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 the 2nd Quarter 2012 (2Q12) and continue to be evaluated. In a letter dated August 16, 2013, 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 their 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, stating that these piezometers will remain in the program. A separate letter dated January 14, 2014, was submitted to the IEPA 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.

In the same March 14, 2012 letter (CA-25), IEPA also requested the installation of groundwater monitoring wells in the Village to evaluate potential light non-aqueous phase liquid (LNAPL). These groundwater monitoring wells were

[1] WRB, formed January 1, 2007, is a 50/50 joint venture between ConocoPhillips (COP) and EnCana US Refineries, LLC (now known as Cenovus Energy, Inc.).

[2] ConocoPhillips Company announced the separation of the Refining and Marketing business from the Exploration & Production business on July 14, 2011. The separation included an ownership change as well as a name change that became effective May 1, 2012. Phillips 66 is now the operator of the WRB WRR.

installed during the 4th Quarter 2012 (4Q12), with the last well being completed on December 8, 2012. These groundwater monitoring wells were 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, 2013b), 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.

In a July 18, 2013, letter from IEPA to SOPUS (IEPA, 2013c), IEPA approved a change in gauging frequencies for wells in the Interim Groundwater Monitoring 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.

In an October 9, 2014, letter from IEPA to SOPUS (IEPA, 2014b), IEPA approved the groundwater monitoring well installation plan located on BP property with certain conditions and modifications. This well was installed during January 2015 and was added to the Interim Groundwater Monitoring Program in 1Q15.

In a letter dated November 15, 2014 (IEPA, 2014c), IEPA approved the proposed plan for groundwater corrective action (submitted to IEPA on November 14, 2013), with the following condition:

- The 1st Quarter 2015 (1Q15) groundwater samples obtained from: (1) the current monitoring well network; (2) the four new wells required by the modified permit issued June 13, 2014; 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, a letter was submitted to IEPA by AECOM, on behalf of SOPUS, delineating the extent of groundwater contamination. A response to this demonstration is pending as of the date of this report.

On December 5, 2014, a letter was submitted to IEPA by URS, on behalf of SOPUS, requesting a reduction in the routine gauging performed as part of the Interim Groundwater Monitoring Program. A response to this request is pending as of the date of this report.

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

Groundwater samples were collected and analyzed during 2Q15 to meet the requirements of the Interim Groundwater Monitoring Program, as specified in the above guidance. **Figure 2** shows the groundwater monitoring wells that were sampled during 2Q15 as part of the interim monitoring well network.

2 Groundwater Sampling and Analytical Procedures

The groundwater monitoring well gauging and sampling 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, 2010), and as modified based on other correspondence outlined in **Section 1** above.

2.1 Additional Activities or Modifications

The following additional work activities or modifications were conducted during the 2Q15:

- Installation of groundwater monitoring well MW-23 was completed in 1Q15. The location of MW-23 is shown on **Figure 2**. Groundwater monitoring well MW-23 was split sampled with BP in 2Q15.
- Dedicated submersible stainless steel QED Environmental Systems, Inc. (QED) Well Wizard® groundwater monitoring well sampling pumps and bonded dedicated polyethylene tubing were installed in groundwater monitoring wells P-93D and T-1, the latter of which is gauged but not sampled as a part of the Interim Groundwater Monitoring Program.
- Monitoring wells P-55 (replaced in January 2013), and P-57, P-93A, and P-93C (replaced in December 2014) were abandoned in March 2015, after AECOM had performed analytical data reviews on the 1Q15 data from the corresponding replacement monitoring wells and accepted the data for their intended use. Documentation of well abandonment was submitted to IEPA in a letter dated April 20, 2015.
- Groundwater monitoring well P-114 was found to be unable to be gauged during 2Q15 gauging events. A groundwater sample was collected from this location, and the analytical results were comparable to historical results, with no exceedances detected at this location. In a Class 1* Permit Modification submitted on May 14, 2015, IEPA was notified that P-114 was unable to be gauged.

2.2 Groundwater Monitoring Well Gauging and Sampling

Groundwater Monitoring Well Gauging

The comprehensive quarterly groundwater monitoring well gauging event was conducted between April 1 and 6, 2015. The 2Q15 gauging activities were conducted in conjunction with the 2Q15 gauging event for the WRR to evaluate groundwater flow direction and identify possible separate phase LNAPL in the Investigation Area. Depth to LNAPL (if present) and depth to water were noted in electronic format using Panasonic Toughbook® technology (Toughbook®) and on groundwater field gauging sheets. The cumulative quarterly groundwater monitoring well gauging data can be found in **Table 1a**. Weekly and monthly gauging data is collected from a subset of the quarterly program wells to assess the absence or presence of LNAPL. This gauging data for 2Q15 can be found in **Table 1b**. The groundwater gauging data tables also include well-head PID results.

Low Flow Groundwater Purging and Sampling

Groundwater samples were collected from groundwater monitoring wells from April 6 through April 21, 2015. Data are included in this report and are discussed in **Section 3.2**.

Groundwater samples were collected via low-flow groundwater purging and sampling procedures. Prior to groundwater monitoring well sampling, the initial water level was measured and recorded in the Toughbook® and on groundwater field data sheets.

Groundwater monitoring wells MW-1 through MW-14, MW-16, MW-22 through MW-28, P-54, P-56 through P-59, P-66, P-74, P-93A, P-93C, ROST-3-MW, ROST-4-PZ(C), and T-12 were purged and sampled using a stainless steel submersible pump, low flow controller, and designated polyethylene tubing[3]. The submersible pump, with the proper length of designated polyethylene tubing, was slowly lowered into the groundwater monitoring well to be sampled and the pump intake was set near the midpoint of the groundwater monitoring well screen.

Groundwater monitoring wells P-93B and P-93D, located on the WRR North Property, and P-114, located on the WRR West Property, were purged and sampled using a dedicated submersible stainless steel QED Well Wizard® groundwater monitoring well sampling pump and bonded dedicated polyethylene tubing. The dedicated pump intake is positioned near the midpoint of the well screen and the pump is operated using a QED MicroPurge Engine/Compressor with a QED Control Box.

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 (≤400 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 groundwater field data sheets after every flow-through cell volume. Purging continued until a minimum of three flow-through cell volumes of water were removed, the groundwater quality parameters stabilized, or a maximum purge time of two hours was reached. The final water quality parameters were recorded in the Toughbook® and on groundwater field data sheets. Once stabilization was achieved or a maximum purge time of 2 hours was reached, the groundwater flow was diverted from the flow-through cell and groundwater samples were collected for volatile organic compound (VOC) and semi-volatile organic compound (SVOC) analysis.

Perched groundwater monitoring piezometers ROST-5-PZ, ROST-7-PZ, ROST-10-PZ, and ROST-21-PZ in the Village, and P-60-12S and P-60-13S in the WRR, could not be sampled according to the Standard Operating Procedure (SOP), due to slow recharge rates or lack of water. Groundwater monitoring wells P-55 and P-68, located inside the WRR, contained LNAPL and were not sampled. Groundwater sampling field parameters can be found in **Tables 2a and 2b**, and groundwater sampling data sheets are included in **Appendix A**.

2.3 Health & Safety, Decontamination, and Investigative Derived Waste

Health & Safety

The quarterly sampling activities were performed in accordance with the Roxana / Route 111, WRR, and Rand Avenue Investigation Health and Safety Plan (HASP), dated January 1, 2015 – December 31, 2015 (AECOM, 2014), as prepared by AECOM.

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 safety analyses (JSAs) were reviewed to address task specific safety concerns.

AECOM field personnel wore U.S. Environmental Protection Agency (USEPA) modified Level D personal protective equipment (PPE), which included hard hat, steel-toed boots, safety glasses, etc. 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 manufacturer's specifications.

There were no PPE upgrades or exceedances of HASP action levels during the 2Q15 sampling event.

[3] All designated tubing is stored in a sealed bag designated for the particular groundwater monitoring well between sampling events.

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. Sampling equipment (e.g., groundwater pump) was decontaminated before and after each sample location by spraying and/or wiping down with isopropyl alcohol, then washing with LiquiNox® and water, and finishing with a distilled water rinse. The wash and rinse water are replaced periodically throughout the day, at least at mid-day. Interface probes were decontaminated by wiping down with isopropyl alcohol and LiquiNox® followed by a distilled water rinse. Personnel and small equipment decontamination were performed at the sample locations.

Investigation Derived Waste

Investigative derived waste (IDW), such as purge water and decontamination water generated during groundwater sampling activities, was collected, stored, and disposed in accordance with the Resource Conservation and Recovery Act (RCRA) and United States Department of Transportation (DOT) regulations. Expendable materials (e.g., disposable sampling equipment such as gloves and tubing) were decontaminated if necessary, collected in trash bags and disposed as municipal waste.

Decontamination fluids and purge water from groundwater monitoring wells MW-4, MW-7, MW-8, and MW-25 were initially collected in 5-gallon buckets, then transferred to a 55-gallon steel drum, which was staged at the Public Works Yard (satellite accumulation area), and removed by Heritage Environmental Services, LLC (Heritage) within 48 hours. This material is managed as hazardous waste based on prior characterization and was disposed at the Heritage facility in Indianapolis, Indiana.

Decontamination fluids and purge water from other groundwater monitoring wells in the Village were initially collected in 5-gallon buckets then transferred to 55-gallon steel drums located near the northeastern portion of the former Tannery Property. 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).

2.4 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 identification data (ID) format is "well ID-ROX-date". COCs are included with laboratory analytical reports in **Appendix B**.

Upon collection and labeling, sample containers were immediately placed inside an iced cooler, 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 the laboratory for analysis.

Samples were analyzed by Accutest Laboratories in Marlborough, Massachusetts for VOCs via USEPA Methods 8260C and 8011, for SVOCs via USEPA Method 8270D, and for Polycyclic Aromatic Hydrocarbons (PAHs) via USEPA Method 8270D Low Level (LL). The 8011 method for VOCs (1,2-dibromoethane and 1,2-dibromo-3-chloropropane) was used in order to achieve lower reporting limits specified in the WRR RCRA Part B Permit (IEPA, 2013a), and the 8270D LL method was used for PAHs. Per direction from IEPA, the Interim Groundwater Monitoring Program concentration limits need to be consistent with those in the Permit.

2.5 Data Quality Review and Data Management

Laboratory data were provided in electronic form and included data qualifiers on the basis of their 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 (Level III data review). Evaluation of the data followed procedures outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Superfund

Organic Methods Data Review (USEPA, 2014). Data qualifiers were also added by AECOM, as appropriate, and are included on **Table 3** and the laboratory results in **Appendix B**. The results of the data 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;
- Groundwater field data sheets;
- Field sample collection data via electronic Toughbook®; and
- Safety documentation.

3 Groundwater Sampling Results

This section presents the results of the 2Q15 groundwater gauging and sampling event.

3.1 Groundwater Monitoring Well Gauging Results

Comprehensive quarterly groundwater monitoring well gauging for the 2Q15 event was conducted between April 1 and 6, 2015. This groundwater monitoring well gauging was conducted in accordance with the Interim Groundwater Monitoring Program and the data can be found in **Table 1a**. Groundwater levels in the vicinity of the West Fenceline have fallen approximately 1.5 to 2 feet since 1Q15. Groundwater levels in most wells in the WRR have fallen approximately 0.5 to 1.5 feet since 1Q15. Water levels are now within the screened intervals in about half the wells gauged during the 2Q15 event. Water levels are within the screened intervals for the majority of the wells along the West Fenceline. The potentiometric surface observed during the 2Q15 groundwater monitoring well gauging (**Figures 3a and 3b**) illustrates groundwater flow toward the WRR groundwater production wells. There are certain examples where groundwater levels in wells immediately inside the refinery are slightly higher than a nearby well outside the refinery (e.g., MW-20 and P-56 near 6th Street, MW-17 and T-12 near 4th Street). These occurrences are believed to be the result of gauging on different days. The overall groundwater flow direction continues to be inward toward the refinery. P66 began operating new groundwater production well W-89 on November 17, 2014. This well is shown on **Figures 3a** and **b**, east of the Public Works Yard. The effect this well has on groundwater elevations can continue to be seen in the 2Q15 gauging event.

Perched groundwater was evaluated in the Village and in the WRR along the West Fenceline during 2Q15. During the 2Q15 event, groundwater was encountered in P-60-13S, ROST-7-PZ, and ROST-21-PZ; and groundwater was not encountered in P-60-12S, ROST-5-PZ, or ROST-10-PZ. The 2Q15 gauging results for perched groundwater monitoring wells and piezometers can be found in **Table 1a**.

During the 2Q15 quarterly groundwater monitoring well gauging event, LNAPL was detected in five Roxana Interim Groundwater Monitoring Program groundwater monitoring wells. Four of these monitoring wells (P-55, P-60, P-60-S and P-68) are located in the WRR and one monitoring well (ROST-4-PZ(D)) is located within the Village **(Table 1a)**. In these wells, LNAPL thicknesses ranged from 0.03 to 0.45 feet. LNAPL was observed within the screened intervals of P-55, P-60, P-60-S, P-68, and ROST-4-PZ(D). During 2Q15 weekly and monthly gauging events, LNAPL was detected in six groundwater monitoring wells. Four of these wells are located in the WRR (P-55, P-60, P-60-S, and P-68) and two are located in the Village (ROST-4-PZ(D) and ROST-4-PZ(E)). This routine gauging data can be found in **Table 1b** and is summarized below.

Monitoring Well	Range of LNAPL Thickness (feet)	Comments
P-55	0.04-0.16	Observed each week
P-60	0.02-1.79	Observed each week
P-60-S	0.02-0.83	Observed in 13 of 14 weeks
P-68	0.01-0.11	Observed in 12 of 14 weeks
ROST-4-PZ(D)	0.06-0.22	Observed in 7 of 14 weeks
ROST-4-PZ(E)	0.02-0.07	Observed in 7 of 14 weeks

LNAPL observed in groundwater monitoring wells located on the WRR property was removed and placed in a double-walled lube cube, which is staged on WRR North Property, prior to being taken to the WRR oil-water separators for reprocessing. LNAPL recovered from groundwater monitoring wells located in the Village was containerized in a 55-gallon steel drum, which was staged near the northeastern portion of the former Tannery Property, prior to being removed by Heritage for recovery for beneficial reuse. Removal of LNAPL, if observed exceeding the minimum

thickness for recovery (0.10 feet) in the Village and WRR, is conducted during quarterly, monthly, and weekly gauging events. **Figures 4a and 4b** illustrate the measured LNAPL thickness observed along the West Fenceline and inside the refinery, respectively, during the 2Q15 gauging event.

3.2 Data Quality Review Results

A total of thirteen sample delivery groups (SDGs) were prepared and sent to Accutest Laboratories in Marlborough, MA for the 2Q15 event. Forty-eight different groundwater sample sets were prepared and analyzed for VOCs and SVOCs (including PAHs). This included forty different investigative sample sets, four field duplicate sets, and two matrix spike/matrix spike duplicate (MS/MSD) sets. SDGs for 2Q15 are presented in **Appendix B**.

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. Four different EB sets were collected for this quarter. A TB set was included in every cooler which contained samples for VOC analysis. A total of thirteen TB sets were analyzed for groundwater VOCs. Laboratory method blanks were analyzed with every analytical batch.

Based on laboratory control sample/laboratory control sample duplicate (LCS/LCSD), matrix spike/matrix spike duplicate (MS/MSD), surrogate, holding time, and field duplicate criteria, the groundwater results reported were accepted for their intended use. Compounds qualified by AECOM are specified in the data reviews presented in **Appendix B**. Additional information is provided in the data reviews in **Appendix B**.

3.3 Analytical Results and Discussion

Tables 2a and 2b present cumulative information on groundwater sampling field parameters for main aquifer and perched wells, respectively. These results are consistent with those observed in the 1Q15 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 Refinery[4]. These concentration limits include the Groundwater Quality Standards for Class I: Potable Resource Groundwater (35 IAC 620, Subpart D), 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), and the IEPA Toxicity Assessment Unit (Chemicals not in TACO, Tier 1 Tables). The results of this comparison are presented in **Table 3**.

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

• Benzene	• Ethylbenzene
• MTBE	• Naphthalene
• Tetrachloroethene	• Toluene
• 1,3,5-Trimethylbenzene	• 2,4-Dimethylphenol
• 2-Methylnaphthalene	• Phenol

Figure 5 presents concentrations of analytes that exceeded the indicated screening criteria for 2Q15. **Figure 6** presents a plan view depiction of benzene analytical results in groundwater across the site. **Figure 7** presents a cross-section along Chaffer Street with a vertical distribution of the benzene concentrations in groundwater

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

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.

AECOM conducted the 2Q15 Roxana Interim Groundwater Monitoring Program, and the following conclusions are based on the data and information collected as part of this program:

- During 2Q15, groundwater level data indicates groundwater flow from the Investigation Area is moving toward groundwater production wells at the WRR. Groundwater levels observed in the Village were approximately 1.5- to 2 feet lower than in the previous quarter. Groundwater levels observed in most monitoring wells in the WRR were approximately 0.5 to 1.5 feet lower than in the previous quarter.
- Perched groundwater was evaluated at groundwater monitoring wells P-60-12S, P-60-13S, ROST-5-PZ, ROST-7-PZ, ROST-10-PZ, and ROST-21-PZ. During the evaluation, groundwater sampling could not be performed because slow recharge or lack of water prevented sampling per the SOP.
- The analytical results from 2Q15 are generally similar to those from previous quarters.

3.4 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.

Historic data has been furnished to AECOM by SOPUS or SOPUS' contractors, which AECOM has 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.

4 References

35 Illinois Administrative Code 620, Groundwater Quality. Subpart D. *Groundwater Quality Standards*.

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*.

AECOM, 2014 (AECOM, 2014); *Route 111/Rand Avenue Vicinity Investigation Health and Safety Plan – Roxana, Illinois*; Prepared for Shell Oil Products US (SOPUS); dated January 1, 2015 – December 31, 2015.

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.

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

Illinois Environmental Protection Agency (IEPA), 2010 (IEPA, 2010); *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 (IEPA), 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 (IEPA), 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 (IEPA), 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 (IEPA), 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 (IEPA), 2013 (IEPA, 2013a); *Hazardous Waste Management RCRA Post-Closure Permit*. Issued to Shell Oil Products US (SOPUS) at the WRB Refining LP (WRB) Wood River Refinery (WRR), issued September 23, 2010; effective October 28, 2010; modified April 2, 2013.

Illinois Environmental Protection Agency (IEPA), 2013 (IEPA, 2013b); *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 (IEPA), 2013 (IEPA, 2013c); *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 (IEPA), 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 (IEPA), 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 (IEPA), 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 Angency (IEPA), 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.

URS Corporation (URS), 2013; *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 (URS), 2014; *Perched Groundwater Monitoring Request for Abandonment*; Prepared for Shell Oil Products US (SOPUS); dated January 14, 2014.

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

US Environmental Protection Agency (USEPA), June 2008 (USEPA, 2008); *Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review.*

Tables

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
MW-01											
3Q12	442.65	7/2/2012	NE	39.12	NA	NA	NA	403.53	393.85 - 383.85 (48.80 - 58.80)	0.0	*
4Q12		10/1/2012	NE	40.92	NA	NA	NA	401.73		0.0	*
1Q13		1/3/2013	NE	41.95	NA	NA	NA	400.70		0.0	*
2Q13		4/1/2013	NE	42.63	NA	NA	NA	400.02		54.0	*
3Q13		7/1/2013	NE	39.80	NA	NA	NA	402.85		8.7	*
4Q13		10/1/2013	NE	40.23	NA	NA	NA	402.42		0.0	*
1Q14		2/10/2014	NE	42.77	NA	NA	NA	399.88		5.8	*
2Q14		4/1/2014	NE	43.17	NA	NA	NA	399.48		18.9	*
3Q14		7/1/2014	NE	42.22	NA	NA	NA	400.43		1.3	*
4Q14		10/1/2014	NE	41.11	NA	NA	NA	401.54		0.0	*
1Q15		1/6/2015	NE	42.64	NA	NA	NA	400.01		43.9	*
2Q15		4/2/2015	NE	44.11	NA	NA	NA	398.54		0.0	*
MW-02											
3Q12	443.77	7/2/2012	NE	40.32	NA	NA	NA	403.45	393.90 - 383.90 (49.87 - 59.87)	182.0	*
4Q12		10/1/2012	NE	42.10	NA	NA	NA	401.67		13.0	*
1Q13		1/3/2013	NE	43.10	NA	NA	NA	400.67		54.7	*
2Q13		4/1/2013	NE	43.81	NA	NA	NA	399.96		232.0	*
3Q13		7/1/2013	NE	41.15	NA	NA	NA	402.62		208.0	*
4Q13		10/1/2013	NE	41.56	NA	NA	NA	402.21		109.7	*
1Q14		2/10/2014	NE	44.00	NA	NA	NA	399.77		98.7	*
2Q14		4/1/2014	NE	44.45	NA	NA	NA	399.32		50.0	*
3Q14		7/1/2014	NE	43.45	NA	NA	NA	400.32		119.0	*
4Q14		10/1/2014	NE	42.37	NA	NA	NA	401.40		130.1	*
1Q15		1/6/2015	NE	44.05	NA	NA	NA	399.72		91.1	*
2Q15		4/2/2015	NE	45.45	NA	NA	NA	398.32		147.3	*
MW-03											
3Q12	430.08	7/2/2012	NE	26.30	NA	NA	NA	403.78	395.41 - 385.41 (34.67 - 44.67)	0.0	*
4Q12		10/1/2012	NE	28.13	NA	NA	NA	401.95		0.0	*
1Q13		1/3/2013	NE	29.22	NA	NA	NA	400.86		0.0	*
2Q13		4/1/2013	NE	29.88	NA	NA	NA	400.20		3.5	*
3Q13		7/1/2013	NE	26.65	NA	NA	NA	403.43		0.4	*
4Q13		10/2/2013	NE	27.21	NA	NA	NA	402.87		0.0	*
1Q14		2/10/2014	NE	29.91	NA	NA	NA	400.17		2.5	*
2Q14		4/1/2014	NE	30.30	NA	NA	NA	399.78		0.3	*
3Q14		7/1/2014	NE	29.26	NA	NA	NA	400.82		1.2	*
4Q14		10/1/2014	NE	28.14	NA	NA	NA	401.94		0.0	*
1Q15		1/6/2015	NE	29.57	NA	NA	NA	400.51		3.6	*
2Q15		4/2/2015	NE	31.16	NA	NA	NA	398.92		0.2	*
MW-04											
3Q12	441.14	7/2/2012	NE	37.43	NA	NA	NA	403.71	395.08 - 385.08 (46.06 - 56.06)	24.0	*
4Q12		10/1/2012	NE	39.27	NA	NA	NA	401.87		48.6	*
1Q13		1/3/2013	NE	40.27	NA	NA	NA	400.87		35.3	*
2Q13		4/1/2013	NE	41.00	NA	NA	NA	400.14		104.0	*
3Q13		7/1/2013	NE	38.07	NA	NA	NA	403.07		131.6	*
4Q13		10/2/2013	NE	38.49	NA	NA	NA	402.65		39.4	*
1Q14		2/10/2014	NE	41.09	NA	NA	NA	400.05		52.3	*
2Q14		4/1/2014	NE	41.52	NA	NA	NA	399.62		75.0	*
3Q14		7/1/2014	NE	40.50	NA	NA	NA	400.64		97.2	*
4Q14		10/1/2014	NE	39.44	NA	NA	NA	401.70		27.4	*
1Q15		1/6/2015	NE	41.01	NA	NA	NA	400.13		69.0	*
2Q15		4/2/2015	NE	42.58	NA	NA	NA	398.56	396.08 - 386.08 (45.06 - 55.06)	12.5	*
MW-05											
3Q12	429.80	7/2/2012	NE	25.91	NA	NA	NA	403.89	395.83 - 385.83 (33.97 - 43.97)	0.0	*
4Q12		10/1/2012	NE	27.80	NA	NA	NA	402.00		0.0	*
1Q13		1/3/2013	NE	28.86	NA	NA	NA	400.94		0.0	*
2Q13		4/1/2013	NE	29.53	NA	NA	NA	400.27		0.1	*
3Q13		7/1/2013	NE	26.37	NA	NA	NA	403.43		1.0	*
4Q13		10/2/2013	NE	26.85	NA	NA	NA	402.95		0.0	*
1Q14		2/10/2014	NE	29.59	NA	NA	NA	400.21		1.4	*
2Q14		4/1/2014	NE	29.96	NA	NA	NA	399.84		0.0	*
3Q14		7/2/2014	NE	28.93	NA	NA	NA	400.87		0.3	*
4Q14		10/2/2014	NE	27.74	NA	NA	NA	402.06		0.0	*
1Q15		1/6/2015	NE	29.34	NA	NA	NA	400.46		0.5	*
2Q15		4/2/2015	NE	30.91	NA	NA	NA	398.89		0.0	*

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
MW-06A											
3Q12	432.14	7/2/2012	NE	27.88	NA	NA	NA	404.26	397.31 - 387.31 (34.83 - 44.83)	0.0	*
4Q12		10/1/2012	NE	28.81	NA	NA	NA	403.33		0.0	*
1Q13		1/3/2013	NE	30.80	NA	NA	NA	401.34		0.0	*
2Q13		4/1/2013	NE	31.57	NA	NA	NA	400.57		0.1	*
3Q13		7/1/2013	NE	28.48	NA	NA	NA	403.66		0.6	*
4Q13		10/2/2013	NE	28.75	NA	NA	NA	403.39		0.0	*
1Q14		2/10/2014	NE	31.62	NA	NA	NA	400.52		2.3	*
2Q14		4/1/2014	NE	32.03	NA	NA	NA	400.11		10.4	*
3Q14		7/1/2014	NE	30.90	NA	NA	NA	401.24		1.4	*
4Q14		10/2/2014	NE	29.74	NA	NA	NA	402.40		0.0	*
1Q15		1/6/2015	NE	31.48	NA	NA	NA	400.66		0.3	*
2Q15		4/2/2015	NE	33.05	NA	NA	NA	399.09		0.0	*
MW-06B											
3Q12	432.29	7/2/2012	NE	27.92	NA	NA	NA	404.37	368.24 - 363.24 (64.05 - 69.05)	0.0	*
4Q12		10/1/2012	NE	29.86	NA	NA	NA	402.43		0.0	*
1Q13		1/3/2013	NE	30.87	NA	NA	NA	401.42		0.0	*
2Q13		4/1/2013	NE	31.63	NA	NA	NA	400.66		2.7	*
3Q13		7/1/2013	NE	28.53	NA	NA	NA	403.76		0.0	*
4Q13		10/2/2013	NE	28.80	NA	NA	NA	403.49		0.5	*
1Q14		2/10/2014	NE	31.67	NA	NA	NA	400.62		6.0	*
2Q14		4/1/2014	NE	32.10	NA	NA	NA	400.19		4.8	*
3Q14		7/1/2014	NE	30.93	NA	NA	NA	401.36		2.1	*
4Q14		10/2/2014	NE	29.78	NA	NA	NA	402.51		0.0	*
1Q15		1/6/2015	NE	31.52	NA	NA	NA	400.77		5.6	*
2Q15		4/2/2015	NE	33.10	NA	NA	NA	399.19		29.1	*
MW-06C											
3Q12	432.11	7/2/2012	NE	27.71	NA	NA	NA	404.40	347.16 - 342.16 (84.95 - 89.95)	0.0	*
4Q12		10/1/2012	NE	29.70	NA	NA	NA	402.41		0.0	*
1Q13		1/3/2013	NE	30.65	NA	NA	NA	401.46		0.0	*
2Q13		4/1/2013	NE	31.40	NA	NA	NA	400.71		1.1	*
3Q13		7/1/2013	NE	28.32	NA	NA	NA	403.79		0.2	*
4Q13		10/2/2013	NE	28.58	NA	NA	NA	403.53		0.0	*
1Q14		2/10/2014	NE	31.48	NA	NA	NA	400.63		3.8	*
2Q14		4/1/2014	NE	31.89	NA	NA	NA	400.22		2.5	*
3Q14		7/1/2014	NE	30.74	NA	NA	NA	401.37		2.1	*
4Q14		10/2/2014	NE	29.58	NA	NA	NA	402.53		0.0	*
1Q15		1/6/2015	NE	31.31	NA	NA	NA	400.80		42.0	*
2Q15		4/2/2015	NE	32.89	NA	NA	NA	399.22		0.0	*
MW-06D											
3Q12	431.99	7/2/2012	NE	27.58	NA	NA	NA	404.41	327.27 - 322.27 (104.72 - 109.72)	0.0	*
4Q12		10/1/2012	NE	29.51	NA	NA	NA	402.48		0.0	*
1Q13		1/3/2013	NE	30.51	NA	NA	NA	401.48		0.0	*
2Q13		4/1/2013	NE	31.26	NA	NA	NA	400.73		4.2	*
3Q13		7/1/2013	NE	28.17	NA	NA	NA	403.82		0.7	*
4Q13		10/2/2013	NE	28.45	NA	NA	NA	403.54		0.0	*
1Q14		2/10/2014	NE	31.33	NA	NA	NA	400.66		1.3	*
2Q14		4/1/2014	NE	31.73	NA	NA	NA	400.26		1.6	*
3Q14		7/1/2014	NE	30.58	NA	NA	NA	401.41		13.3	*
4Q14		10/2/2014	NE	29.43	NA	NA	NA	402.56		0.0	*
1Q15		1/6/2015	NE	31.16	NA	NA	NA	400.83		5.9	*
2Q15		4/2/2015	NE	32.74	NA	NA	NA	399.25		43.0	*
MW-07											
3Q12	443.10	7/2/2012	NE	39.23	NA	NA	NA	403.87	400.18 - 390.18 (42.92 - 52.92)	5.6	*
4Q12		10/1/2012	NE	41.10	NA	NA	NA	402.00		0.0	*
1Q13		1/3/2013	NE	42.10	NA	NA	NA	401.00		0.0	*
2Q13		4/1/2013	NE	42.90	NA	NA	NA	400.20		0.0	*
3Q13		7/1/2013	NE	40.08	NA	NA	NA	403.02		357.0	*
4Q13		10/2/2013	NE	40.33	NA	NA	NA	402.77		OVR	*
1Q14		2/10/2014	NE	42.94	NA	NA	NA	400.16		720.3	
2Q14		4/3/2014	NE	43.41	NA	NA	NA	399.69		6.2	
3Q14		7/1/2014	NE	42.39	NA	NA	NA	400.71		170.1	*
4Q14		10/1/2014	NE	41.32	NA	NA	NA	401.78		4259.0	*
1Q15		1/6/2015	NE	43.18	NA	NA	NA	399.92		9.7	
2Q15		4/2/2015	NE	44.68	NA	NA	NA	398.42		0.0	

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
MW-08											
3Q12	434.11	7/2/2012	NE	30.29	NA	NA	NA	403.82	400.51 - 390.51 (33.60 - 43.60)	9.2	*
4Q12		10/1/2012	NE	32.17	NA	NA	NA	401.94		0.0	*
1Q13		1/3/2013	NE	33.21	NA	NA	NA	400.90		11.2	*
2Q13		4/1/2013	NE	33.94	NA	NA	NA	400.17		0.2	
3Q13		7/1/2013	NE	30.90	NA	NA	NA	403.21		883.0	*
4Q13		10/2/2013	NE	31.26	NA	NA	NA	402.85		684.6	*
1Q14		2/10/2014	NE	34.02	NA	NA	NA	400.09		7.2	
2Q14		4/3/2014	NE	34.36	NA	NA	NA	399.75		2.8	
3Q14		7/2/2014	NE	33.35	NA	NA	NA	400.76		13.2	*
4Q14		10/2/2014	NE	32.19	NA	NA	NA	401.92		102.7	*
1Q15		1/6/2015	NE	33.91	NA	NA	NA	400.20		101.0	
2Q15		4/2/2015	NE	35.46	NA	NA	NA	398.65		0.0	
MW-09											
3Q12	445.20	7/2/2012	NE	40.07	NA	NA	NA	405.13	398.75 - 388.75 (46.45 - 56.45)	0.0	*
4Q12		10/1/2012	NE	42.75	NA	NA	NA	402.45		0.0	*
1Q13		1/2/2013	NE	43.92	NA	NA	NA	401.28		0.0	*
2Q13		4/1/2013	NE	44.76	NA	NA	NA	400.44		0.8	*
3Q13		7/1/2013	NE	42.35	NA	NA	NA	402.85		0.8	*
4Q13		10/1/2013	NE	42.29	NA	NA	NA	402.91		0.0	*
1Q14		2/10/2014	NE	44.47	NA	NA	NA	400.73		0.6	*
2Q14		4/1/2014	NE	44.95	NA	NA	NA	400.25		1.7	*
3Q14		7/1/2014	NE	44.49	NA	NA	NA	400.71		0.0	*
4Q14		10/1/2014	NE	43.54	NA	NA	NA	401.66		0.3	*
1Q15		1/5/2015	NE	44.16	NA	NA	NA	401.04		12.8	*
2Q15		4/2/2015	NE	45.45	NA	NA	NA	399.75		0.0	*
MW-10											
3Q12	445.03	7/2/2012	NE	40.92	NA	NA	NA	404.11	400.60 - 390.60 (44.43 - 54.43)	0.0	*
4Q12		10/1/2012	NE	42.69	NA	NA	NA	402.34		0.0	*
1Q13		1/2/2013	NE	43.81	NA	NA	NA	401.22		0.0	*
2Q13		4/1/2013	NE	44.72	NA	NA	NA	400.31		0.0	
3Q13		7/1/2013	NE	42.55	NA	NA	NA	402.48		13.4	*
4Q13		10/1/2013	NE	42.45	NA	NA	NA	402.58		0.0	*
1Q14		2/10/2014	NE	44.42	NA	NA	NA	400.61		0.4	*
2Q14		4/1/2014	NE	44.99	NA	NA	NA	400.04		177.6	
3Q14		7/1/2014	NE	44.55	NA	NA	NA	400.48		0.0	
4Q14		10/1/2014	NE	43.65	NA	NA	NA	401.38		0.2	*
1Q15		1/5/2015	NE	44.19	NA	NA	NA	400.84		0.0	*
2Q15		4/2/2015	NE	45.38	NA	NA	NA	399.65		0.0	
MW-11											
3Q12	442.33	7/2/2012	NE	38.68	NA	NA	NA	403.65	400.67 - 390.67 (41.66 - 51.66)	0.0	*
4Q12		10/1/2012	NE	40.42	NA	NA	NA	401.91		0.0	*
1Q13		1/2/2013	NE	41.49	NA	NA	NA	400.84		0.0	*
2Q13		4/1/2013	NE	42.18	NA	NA	NA	400.15		2.3	
3Q13		7/1/2013	NE	39.49	NA	NA	NA	402.84		0.3	*
4Q13		10/1/2013	NE	39.84	NA	NA	NA	402.49		0.0	*
1Q14		2/10/2014	NE	42.16	NA	NA	NA	400.17		0.3	
2Q14		4/1/2014	NE	42.55	NA	NA	NA	399.78		0.0	
3Q14		7/1/2014	NE	41.92	NA	NA	NA	400.41		0.0	
4Q14		10/1/2014	NE	39.93	NA	NA	NA	402.40		0.0	*
1Q15		1/5/2015	NE	41.72	NA	NA	NA	400.61		2.0	
2Q15		4/2/2015	NE	43.16	NA	NA	NA	399.17		0.0	
MW-12											
3Q12	442.60	7/2/2012	NE	39.01	NA	NA	NA	403.59	400.68 - 390.68 (41.92 - 51.92)	0.0	*
4Q12		10/1/2012	NE	40.78	NA	NA	NA	401.82		0.0	*
1Q13		1/3/2013	NE	41.86	NA	NA	NA	400.74		0.0	*
2Q13		4/1/2013	NE	42.46	NA	NA	NA	400.14		0.0	
3Q13		7/1/2013	NE	39.57	NA	NA	NA	403.03		1.2	*
4Q13		10/1/2013	NE	40.05	NA	NA	NA	402.55		0.0	*
1Q14		2/10/2014	NE	42.54	NA	NA	NA	400.06		1.5	
2Q14		4/2/2014	NE	42.97	NA	NA	NA	399.63		0.7	
3Q14		7/1/2014	NE	42.10	NA	NA	NA	400.50		1.1	
4Q14		10/1/2014	NE	41.02	NA	NA	NA	401.58		0.0	*
1Q15		1/5/2015	NE	42.13	NA	NA	NA	400.47		33.2	
2Q15		4/2/2015	NE	43.71	NA	NA	NA	398.89		0.2	

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
MW-13											
3Q12	430.27	7/3/2012	NE	25.95	NA	NA	NA	404.32	404.70 - 394.70 (25.57 - 35.57)	0.0	
4Q12		10/2/2012	NE	27.99	NA	NA	NA	402.28		0.0	
1Q13		1/7/2013	NE	29.07	NA	NA	NA	401.20		24.0	
2Q13		4/2/2013	NE	29.62	NA	NA	NA	400.65		0.0	
3Q13		7/2/2013	NE	25.97	NA	NA	NA	404.30		2.9	
4Q13		10/2/2013	NE	26.69	NA	NA	NA	403.58		54.8	
1Q14		2/11/2014	NE	29.63	NA	NA	NA	400.64		10.1	
2Q14		4/4/2014	NE	30.11	NA	NA	NA	400.16		0.2	
3Q14		7/2/2014	NE	28.72	NA	NA	NA	401.55		1.1	
4Q14		10/3/2014	NE	27.66	NA	NA	NA	402.61		0.4	
1Q15		1/12/2015	NE	29.23	NA	NA	NA	401.04		0.0	
2Q15		4/3/2015	NE	30.83	NA	NA	NA	399.44		1.7	
MW-14											
3Q12	434.44	7/5/2012	NE	29.87	NA	NA	NA	404.57	401.02 - 391.02 (33.42 - 43.42)	0.0	*
4Q12		10/2/2012	NE	31.86	NA	NA	NA	402.58		17.8	*
1Q13		1/7/2013	NE	32.71	NA	NA	NA	401.73		26.0	*
2Q13		4/2/2013	NE	33.68	NA	NA	NA	400.76		44.3	
3Q13		7/2/2013	NE	30.69	NA	NA	NA	403.75		7.4	*
4Q13		10/2/2013	NE	30.58	NA	NA	NA	403.86		20.5	*
1Q14		2/11/2014	NE	33.67	NA	NA	NA	400.77		45.1	
2Q14		4/4/2014	NE	34.21	NA	NA	NA	400.23		50.2	
3Q14		7/2/2014	NE	33.03	NA	NA	NA	401.41		52.0	*
4Q14		10/3/2014	NE	31.93	NA	NA	NA	402.51		83.3	*
1Q15		1/9/2015	NE	33.64	NA	NA	NA	400.80		41.8	
2Q15		4/3/2015	NE	35.20	NA	NA	NA	399.24		78.2	
MW-16											
1Q13	443.39	1/23/2013	NE	43.05	NA	NA	NA	400.34	406.33 - 396.33 (37.06 - 47.06)	0.0	Installed during 4Q12
2Q13		4/1/2013	NE	43.55	NA	NA	NA	399.84		0.0	
3Q13		7/1/2013	NE	40.86	NA	NA	NA	402.53		0.0	
4Q13		10/1/2013	NE	41.43	NA	NA	NA	401.96		0.0	
1Q14		2/10/2014	NE	43.76	NA	NA	NA	399.63		0.5	
2Q14		4/1/2014	NE	44.19	NA	NA	NA	399.20		0.6	
3Q14		7/1/2014	NE	43.45	NA	NA	NA	399.94		0.0	
4Q14		10/1/2014	NE	42.35	NA	NA	NA	401.04		0.0	
1Q15		1/5/2015	NE	43.45	NA	NA	NA	399.94		0.0	
2Q15		4/2/2015	NE	44.93	NA	NA	NA	398.46		0.0	
MW-17											
1Q13	441.57	2/11/2013	NE	41.75	NA	NA	NA	399.82	407.28 - 392.28 (34.29 - 49.29)	0.2	Installed during 4Q12
2Q13		4/1/2013	NE	41.85	NA	NA	NA	399.72		0.5	
3Q13		7/1/2013	NE	39.42	NA	NA	NA	402.15		0.0	
4Q13		10/1/2013	NE	40.18	NA	NA	NA	401.39		0.0	
1Q14		2/10/2014	NE	42.25	NA	NA	NA	399.32		0.0	
2Q14		4/3/2014	NE	42.76	NA	NA	NA	398.81		2.1	
3Q14		7/1/2014	NE	41.92	NA	NA	NA	399.65		0.0	
4Q14		10/1/2014	NE	41.07	NA	NA	NA	400.50		0.0	
1Q15		1/5/2015	NE	41.86	NA	NA	NA	399.71		1.9	
2Q15		4/2/2015	NE	43.20	NA	NA	NA	398.37		0.0	
MW-18											
1Q13	442.04	2/11/2013	NE	42.25	NA	NA	NA	399.79	407.12 - 392.12 (34.92 - 49.92)	0.0	Installed during 4Q12
2Q13		4/1/2013	NE	42.38	NA	NA	NA	399.66		0.0	
3Q13		7/1/2013	NE	39.89	NA	NA	NA	402.15		0.0	
4Q13		10/1/2013	NE	40.85	NA	NA	NA	401.19		0.0	
1Q14		2/11/2014	NE	42.85	NA	NA	NA	399.19		0.0	
2Q14		4/1/2014	NE	43.41	NA	NA	NA	398.63		0.0	
3Q14		7/1/2014	NE	42.49	NA	NA	NA	399.55		0.9	
4Q14		10/1/2014	NE	41.67	NA	NA	NA	400.37		0.0	
1Q15		1/5/2015	NE	42.55	NA	NA	NA	399.49		0.3	
2Q15		4/2/2015	NE	44.53	NA	NA	NA	397.51		0.0	
MW-19											
1Q13	442.77	2/11/2013	NE	42.88	NA	NA	NA	399.89	406.43 - 391.43 (36.34 - 51.34)	0.9	Installed during 4Q12
2Q13		4/1/2013	NE	43.04	NA	NA	NA	399.73		10.3	
3Q13		7/1/2013	NE	40.50	NA	NA	NA	402.27		0.0	
4Q13		10/2/2013	NE	41.24	NA	NA	NA	401.53		0.0	
1Q14		2/10/2014	NE	43.41	NA	NA	NA	399.36		0.9	
2Q14		4/1/2014	NE	43.92	NA	NA	NA	398.85		0.0	
3Q14		7/1/2014	NE	42.92	NA	NA	NA	399.85		0.6	
4Q14		10/1/2014	NE	42.02	NA	NA	NA	400.75		0.0	
1Q15		1/5/2015	NE	43.13	NA	NA	NA	399.64		0.0	
2Q15		4/2/2015	NE	43.94	NA	NA	NA	398.83		0.0	

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
MW-20											
1Q13	443.67	2/11/2013	NE	43.66	NA	NA	NA	400.01	407.79 - 392.79 (35.88 - 50.88)	0.0	Installed during 4Q12
2Q13		4/1/2013	NE	43.89	NA	NA	NA	399.78		0.1	
3Q13		7/1/2013	NE	41.23	NA	NA	NA	402.44		0.0	
4Q13		10/1/2013	NE	41.77	NA	NA	NA	401.90		0.0	
1Q14		2/10/2014	NE	44.09	NA	NA	NA	399.58		1.4	
2Q14		4/2/2014	NE	44.65	NA	NA	NA	399.02		0.0	
3Q14		7/1/2014	NE	43.64	NA	NA	NA	400.03		1.3	
4Q14		10/1/2014	NE	42.63	NA	NA	NA	401.04		0.0	
1Q15		1/5/2015	NE	43.93	NA	NA	NA	399.74		0.0	
2Q15		4/2/2015	NE	45.39	NA	NA	NA	398.28		0.0	
MW-21											
1Q13	443.81	2/11/2013	NE	43.53	NA	NA	NA	400.28	408.80 - 393.80 (35.01 - 50.01)	0.1	Installed during 4Q12
2Q13		4/1/2013	NE	43.79	NA	NA	NA	400.02		0.3	
3Q13		7/1/2013	NE	41.05	NA	NA	NA	402.76		0.0	
4Q13		10/2/2013	NE	41.40	NA	NA	NA	402.41		0.0	
1Q14		2/10/2014	NE	43.91	NA	NA	NA	399.90		32.5	
2Q14		4/3/2014	NE	44.38	NA	NA	NA	399.43		1.8	
3Q14		7/2/2014	NE	43.38	NA	NA	NA	400.43		0.0	
4Q14		10/1/2014	NE	42.28	NA	NA	NA	401.53		0.0	
1Q15		1/6/2015	NE	44.15	NA	NA	NA	399.66		13.8	
2Q15		4/2/2015	NE	45.58	NA	NA	NA	398.23		0.0	
MW-22											
1Q13	442.16	1/23/2013	NE	41.80	NA	NA	NA	400.36	404.28 - 394.28 (37.88 - 47.88)	2.0	Installed during 4Q12
2Q13		4/1/2013	NE	42.31	NA	NA	NA	399.85		2.8	
3Q13		7/5/2013	NE	39.60	NA	NA	NA	402.56		0.6	
4Q13		10/1/2013	NE	40.23	NA	NA	NA	401.93		0.0	
1Q14		2/10/2014	NE	42.49	NA	NA	NA	399.67		0.3	
2Q14		4/3/2014	NE	42.90	NA	NA	NA	399.26		0.2	
3Q14		7/1/2014	NE	42.18	NA	NA	NA	399.98		0.1	
4Q14		10/1/2014	NE	41.20	NA	NA	NA	400.96		0.0	
1Q15		1/6/2015	NE	42.13	NA	NA	NA	400.03		0.0	
2Q15		4/2/2015	NE	43.53	NA	NA	NA	398.63		0.2	
MW-23											
2Q15	431.41	4/2/2015	NE	32.21	NA	NA	NA	399.20	402.39 - 392.39 (29.02 - 39.02)	0.0	Installed during 1Q15
MW-24											
2Q13	443.42	4/1/2013	NE	43.44	NA	NA	NA	399.98	404.53 - 394.53 (38.89 - 48.89)	0.5	Installed during 1Q13
3Q13		7/3/2013	NE	40.59	NA	NA	NA	402.83		0.0	
4Q13		10/1/2013	NE	41.08	NA	NA	NA	402.34		134.4	
1Q14		2/10/2014	NE	43.47	NA	NA	NA	399.95		14.2	
2Q14		4/1/2014	NE	43.86	NA	NA	NA	399.56		4.9	
3Q14		7/1/2014	NE	43.15	NA	NA	NA	400.27		0.0	
4Q14		10/1/2014	NE	42.13	NA	NA	NA	401.29		13.8	
1Q15		1/5/2015	NE	43.00	NA	NA	NA	400.42		120.0	
2Q15		4/2/2015	NE	44.50	NA	NA	NA	398.92		0.3	
MW-25											
4Q14	438.35	10/1/2014	NE	36.50	NA	NA	NA	401.85	402.76 - 392.76 (35.59 - 45.59)	0.0	Installed during 3Q14
1Q15		1/6/2015	NE	38.16	NA	NA	NA	400.19		1.3	
2Q15		4/2/2015	NE	39.69	NA	NA	NA	398.66		1.2	
MW-26											
4Q14	441.02	10/2/2014	NE	39.41	NA	NA	NA	401.61	402.87 - 392.87 (38.15 - 48.15)	8.2	Installed during 3Q14
1Q15		1/6/2015	NE	40.99	NA	NA	NA	400.03		NA	
2Q15		4/2/2015	NE	42.48	NA	NA	NA	398.54		22.9	
MW-27											
1Q15	443.40	1/5/2015	NE	41.95	NA	NA	NA	401.45	403.61 - 393.61 (39.79 - 49.79)	NA	Installed during 4Q14
2Q15		4/2/2015	NE	43.28	NA	NA	NA	400.12		10.9	
MW-28											
4Q14	443.34	10/1/2014	NE	41.10	NA	NA	NA	402.24	409.73 - 399.73 (33.61 - 43.61)	0.0	Installed during 3Q14
1Q15		1/5/2015	NE	41.05	NA	NA	NA	402.29		NA	
2Q15		4/2/2015	NE	42.12	NA	NA	NA	401.22		0.0	
P-01											
3Q12	442.56	7/2/2012	NE	30.60	NA	NA	NA	411.96	380.61 - 375.61 (61.95 - 66.95)	0.0	*
4Q12		10/1/2012	NE	32.35	NA	NA	NA	410.21		0.0	*
1Q13		1/3/2013	NE	33.96	NA	NA	NA	408.60		0.0	*
2Q13		4/1/2013	NE	33.68	NA	NA	NA	408.88		0.4	*
3Q13		7/3/2013	NE	30.60	NA	NA	NA	411.96		0.0	*
4Q13		10/1/2013	NE	33.13	NA	NA	NA	409.43		0.6	*
1Q14		2/12/2014	NE	35.21	NA	NA	NA	407.35		0.1	*
2Q14		4/2/2014	NE	35.61	NA	NA	NA	406.95		0.0	*
3Q14		7/3/2014	NE	34.33	NA	NA	NA	408.23		0.2	*
4Q14		10/1/2014	NE	33.96	NA	NA	NA	408.60		0.0	*
1Q15	442.73	1/5/2015	NM	NM	NA	NA	NA	NA	380.78 - 375.78 (61.95 - 66.95)	NM	Inaccessible due to ice
2Q15		4/6/2015	NE	34.46	NA	NA	NA	408.27		0.2	*

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
P-4U											
3Q12	442.50	7/2/2012	NE	31.70	NA	NA	NA	410.80	361.35 - 359.35 (81.15 - 83.15)	0.0	*
4Q12		10/1/2012	NE	33.65	NA	NA	NA	408.85		0.5	*
1Q13		1/3/2013	NE	35.10	NA	NA	NA	407.40		0.0	*
2Q13		4/1/2013	NE	35.95	NA	NA	NA	406.55		0.5	*
3Q13		7/3/2013	NE	32.80	NA	NA	NA	409.70		0.0	*
4Q13		10/1/2013	NE	34.72	NA	NA	NA	407.78		0.2	*
1Q14		2/12/2014	NE	36.76	NA	NA	NA	405.74		51.0	*
2Q14		4/4/2014	NE	39.91	NA	NA	NA	402.59		0.2	*
3Q14		7/3/2014	NE	36.64	NA	NA	NA	405.86		0.0	*
4Q14		10/1/2014	NE	36.22	NA	NA	NA	406.28		0.0	*
1Q15	442.54	1/5/2015	NE	36.01	NA	NA	NA	406.53	361.39 - 359.39 (81.15 - 83.15)	0.0	*
2Q15		4/6/2015	NE	35.88	NA	NA	NA	406.66		0.4	*
P-5L											
3Q12	443.79	7/2/2012	NE	31.60	NA	NA	NA	412.19	303.39 - 301.39 (140.40 - 142.40)	0.0	*
4Q12		10/1/2012	NE	33.60	NA	NA	NA	410.19		0.0	*
1Q13		1/3/2013	NE	35.17	NA	NA	NA	408.62		0.0	*
2Q13		4/1/2013	NE	35.84	NA	NA	NA	407.95		0.0	*
3Q13		7/3/2013	NE	31.51	NA	NA	NA	412.28		0.0	*
4Q13		10/1/2013	NE	34.35	NA	NA	NA	409.44		0.4	*
1Q14		2/12/2014	NE	36.88	NA	NA	NA	406.91		0.2	*
2Q14		4/4/2014	NE	41.40	NA	NA	NA	402.39		2.0	*
3Q14		7/3/2014	NE	36.65	NA	NA	NA	407.14		0.0	*
4Q14		10/1/2014	NE	36.38	NA	NA	NA	407.41		0.0	*
1Q15	443.84	1/5/2015	NE	36.83	NA	NA	NA	407.01	303.44 - 301.44 (140.40 - 142.40)	0.0	*
2Q15		4/6/2015	NE	36.21	NA	NA	NA	407.63		0.1	*
P-5U											
3Q12	444.15	7/2/2012	NE	32.80	NA	NA	NA	411.35	313.52 - 311.52 (130.63 - 132.63)	0.8	*
4Q12		10/1/2012	NE	35.00	NA	NA	NA	409.15		0.8	*
1Q13		1/3/2013	NE	36.41	NA	NA	NA	407.74		0.0	*
2Q13		4/1/2013	NE	37.24	NA	NA	NA	406.91		0.0	*
3Q13		7/3/2013	NE	33.53	NA	NA	NA	410.62		0.0	*
4Q13		10/1/2013	NE	35.88	NA	NA	NA	408.27		0.0	*
1Q14		2/12/2014	NE	38.00	NA	NA	NA	406.15		0.5	*
2Q14		4/4/2014	NE	50.04	NA	NA	NA	394.11		0.2	*
3Q14		7/3/2014	NE	37.95	NA	NA	NA	406.20		0.0	*
4Q14		10/1/2014	NE	37.56	NA	NA	NA	406.59		0.0	*
1Q15	444.24	1/5/2015	NE	46.14	NA	NA	NA	398.10	313.61 - 311.61 (130.63 - 132.63)	0.1	*
2Q15		4/6/2015	NE	37.23	NA	NA	NA	407.01		0.1	*
P-6L											
3Q12	443.20	7/2/2012	NE	31.18	NA	NA	NA	412.02	353.20 - 351.20 (90.00 - 92.00)	0.0	*
4Q12		10/1/2012	NE	33.45	NA	NA	NA	409.75		0.2	*
1Q13		1/3/2013	NE	35.00	NA	NA	NA	408.20		0.0	*
2Q13		4/1/2013	NE	35.19	NA	NA	NA	408.01		0.0	*
3Q13		7/3/2013	NE	31.66	NA	NA	NA	411.54		0.0	*
4Q13		10/1/2013	NE	33.97	NA	NA	NA	409.23		0.1	*
1Q14		2/12/2014	NE	36.27	NA	NA	NA	406.93		21.8	*
2Q14		4/4/2014	NE	36.88	NA	NA	NA	406.32		0.2	*
3Q14		7/3/2014	NE	36.04	NA	NA	NA	407.16		0.0	*
4Q14		10/1/2014	NE	35.75	NA	NA	NA	407.45		0.0	*
1Q15	443.31	1/5/2015	NE	35.55	NA	NA	NA	407.76	353.31 - 351.31 (90.00 - 92.00)	0.0	*
2Q15		4/6/2015	NE	35.96	NA	NA	NA	407.35		0.1	*
P-6U											
3Q12	443.35	7/2/2012	NE	32.25	NA	NA	NA	411.10	362.85 - 360.85 (80.50 - 82.50)	0.0	*
4Q12		10/1/2012	NE	30.40	NA	NA	NA	412.95		0.2	*
1Q13		1/3/2013	NE	35.86	NA	NA	NA	407.49		0.0	*
2Q13		4/1/2013	NE	36.88	NA	NA	NA	406.47		0.0	*
3Q13		7/3/2013	NE	33.17	NA	NA	NA	410.18		0.0	*
4Q13		10/1/2013	NE	35.31	NA	NA	NA	408.04		0.1	*
1Q14		2/12/2014	NE	37.45	NA	NA	NA	405.90		0.7	*
2Q14		4/4/2014	NE	42.10	NA	NA	NA	401.25		1.5	*
3Q14		7/3/2014	NE	37.52	NA	NA	NA	405.83		0.1	*
4Q14		10/1/2014	NE	37.17	NA	NA	NA	406.18		0.0	*
1Q15	443.45	1/5/2015	NE	37.12	NA	NA	NA	406.33	362.95 - 360.95 (80.50 - 82.50)	0.0	*
2Q15		4/6/2015	NE	36.85	NA	NA	NA	406.60		0.1	*

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
P-7L											
3Q12	443.42	7/2/2012	NE	32.60	NA	NA	NA	410.82	373.42 - 371.42 (70.00 - 72.00)	0.0	*
4Q12		10/1/2012	NE	33.98	NA	NA	NA	409.44		0.0	*
1Q13		1/3/2013	NE	35.77	NA	NA	NA	407.65		0.0	*
2Q13		4/1/2013	NE	36.17	NA	NA	NA	407.25		0.0	*
3Q13		7/3/2013	NE	32.73	NA	NA	NA	410.69		0.0	*
4Q13		10/1/2013	NE	34.70	NA	NA	NA	408.72		0.8	*
1Q14		2/12/2014	NE	36.92	NA	NA	NA	406.50		1.1	*
2Q14		4/2/2014	NE	37.76	NA	NA	NA	405.66		29.9	*
3Q14		7/3/2014	NE	36.97	NA	NA	NA	406.45		0.0	*
4Q14		10/1/2014	NE	36.70	NA	NA	NA	406.72		0.0	*
1Q15	443.56	1/6/2015	NE	36.50	NA	NA	NA	407.06	373.56 - 371.56 (70.00 - 72.00)	0.0	*
2Q15		4/6/2015	NE	36.85	NA	NA	NA	406.71		0.7	*
P-7U											
3Q12	443.80	7/2/2012	NE	31.86	NA	NA	NA	411.94	382.72 - 380.72 (61.08 - 63.08)	0.0	*
4Q12		10/1/2012	NE	34.55	NA	NA	NA	409.25		0.0	*
1Q13		1/3/2013	NE	36.12	NA	NA	NA	407.68		0.0	*
2Q13		4/1/2013	NE	37.12	NA	NA	NA	406.68		0.0	*
3Q13		7/3/2013	NE	33.11	NA	NA	NA	410.69		0.0	*
4Q13		10/1/2013	NE	35.54	NA	NA	NA	408.26		0.1	*
1Q14		2/12/2014	NE	37.76	NA	NA	NA	406.04		2.0	*
2Q14		4/2/2014	NE	43.67	NA	NA	NA	400.13		0.2	*
3Q14		7/3/2014	NE	37.81	NA	NA	NA	405.99		0.3	*
4Q14		10/1/2014	NE	37.52	NA	NA	NA	406.28		0.0	*
1Q15	443.91	1/6/2015	NE	37.49	NA	NA	NA	406.42	382.83 - 380.83 (61.08 - 63.08)	0.0	*
2Q15		4/6/2015	NE	37.22	NA	NA	NA	406.69		0.5	*
P-8L											
3Q12	443.10	7/2/2012	NE	31.81	NA	NA	NA	411.29	373.10 - 371.10 (70.00 - 72.00)	0.0	*
4Q12		10/1/2012	NE	33.74	NA	NA	NA	409.36		0.0	*
1Q13		1/3/2013	NE	35.49	NA	NA	NA	407.61		0.0	*
2Q13		4/1/2013	NE	36.23	NA	NA	NA	406.87		0.0	*
3Q13		7/3/2013	NE	33.89	NA	NA	NA	409.21		0.0	*
4Q13		10/1/2013	NE	34.75	NA	NA	NA	408.35		0.0	*
1Q14		2/12/2014	NE	36.57	NA	NA	NA	406.53		0.9	*
2Q14		4/1/2014	NE	37.59	NA	NA	NA	405.51		0.0	*
3Q14		7/1/2014	NE	37.00	NA	NA	NA	406.10		0.0	*
4Q14		10/3/2014	NE	38.28	NA	NA	NA	404.82		0.0	*
1Q15	441.38	1/5/2015	NE	36.14	NA	NA	NA	405.24	371.38 - 369.38 (70.00 - 72.00)	0.4	*
2Q15		4/6/2015	NE	36.58	NA	NA	NA	404.80		0.2	*
P-8U											
3Q12	441.87	7/1/2012	NE	32.51	NA	NA	NA	409.36	382.35 - 380.35 (59.52 - 61.52)	0.0	*
4Q12		10/1/2012	NE	34.77	NA	NA	NA	407.10		0.2	*
1Q13		1/3/2013	NE	35.97	NA	NA	NA	405.90		0.0	*
2Q13		4/1/2013	NE	37.30	NA	NA	NA	404.57		0.0	*
3Q13		7/3/2013	NE	34.48	NA	NA	NA	407.39		0.0	*
4Q13		10/1/2013	NE	35.70	NA	NA	NA	406.17		0.0	*
1Q14		2/12/2014	NE	37.54	NA	NA	NA	404.33		0.4	*
2Q14		4/1/2014	NE	38.43	NA	NA	NA	403.44		0.0	*
3Q14		7/1/2014	NE	38.00	NA	NA	NA	403.87		0.0	*
4Q14		10/3/2014	NE	37.73	NA	NA	NA	404.14		0.0	*
1Q15	441.85	1/5/2015	NE	37.08	NA	NA	NA	404.77	382.33 - 380.33 (59.52 - 61.52)	0.0	*
2Q15		4/6/2015	NE	37.06	NA	NA	NA	404.79		0.1	*
P-9L											
3Q12	444.41	7/2/2012	NE	36.48	NA	NA	NA	407.93	334.41 - 332.41 (110.00 - 112.00)	0.0	*
4Q12		10/1/2012	NE	38.22	NA	NA	NA	406.19		0.0	*
1Q13		1/3/2013	NE	39.98	NA	NA	NA	404.43		0.0	*
2Q13		4/1/2013	NE	40.80	NA	NA	NA	403.61		0.0	*
3Q13		7/3/2013	NE	39.16	NA	NA	NA	405.25		4.9	*
4Q13		10/1/2013	NE	39.45	NA	NA	NA	404.96		0.0	*
1Q14		2/12/2014	NE	41.01	NA	NA	NA	403.40		0.2	*
2Q14		4/1/2014	NE	42.15	NA	NA	NA	402.26		0.0	*
3Q14		7/2/2014	NE	41.59	NA	NA	NA	402.82		0.0	*
4Q14		10/3/2014	NE	41.29	NA	NA	NA	403.12		0.0	*
1Q15	444.57	1/6/2015	NE	40.77	NA	NA	NA	403.80	334.57 - 332.57 (110.00 - 112.00)	0.0	*
2Q15		4/6/2015	NE	40.07	NA	NA	NA	404.50		0.5	*

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
P-9U											
3Q12	444.91	7/2/2012	NE	36.81	NA	NA	NA	408.10	344.32 - 342.32 (100.59 - 102.59)	0.0	*
4Q12		10/1/2012	NE	38.59	NA	NA	NA	406.32		0.0	*
1Q13		1/3/2013	NE	40.11	NA	NA	NA	404.80		0.0	*
2Q13		4/1/2013	NE	41.20	NA	NA	NA	403.71		0.0	*
3Q13		7/3/2013	NE	39.74	NA	NA	NA	405.17		0.5	*
4Q13		10/1/2013	NE	39.93	NA	NA	NA	404.98		0.0	*
1Q14		2/12/2014	NE	41.36	NA	NA	NA	403.55		0.1	*
2Q14		4/1/2014	NE	42.28	NA	NA	NA	402.63		0.0	*
3Q14		7/2/2014	NE	42.07	NA	NA	NA	402.84		0.0	*
4Q14		10/3/2014	NE	41.81	NA	NA	NA	403.10		0.0	*
1Q15	445.04	1/6/2015	NE	41.41	NA	NA	NA	403.63	344.45 - 342.45 (100.59 - 102.59)	0.0	*
2Q15		4/6/2015	NE	41.60	NA	NA	NA	403.44		0.1	*
P-11L											
3Q12	442.80	7/2/2012	NE	33.52	NA	NA	NA	409.28	332.59 - 330.59 (110.21 - 112.21)	0.0	*
4Q12		10/1/2012	NE	35.56	NA	NA	NA	407.24		0.0	*
1Q13		1/3/2013	NE	37.20	NA	NA	NA	405.60		0.0	*
2Q13		4/1/2013	NE	37.97	NA	NA	NA	404.83		0.0	*
3Q13		7/3/2013	NE	37.85	NA	NA	NA	404.95		0.0	*
4Q13		10/1/2013	NE	36.60	NA	NA	NA	406.20		1.0	*
1Q14		2/12/2014	NE	38.37	NA	NA	NA	404.43		8.9	*
2Q14		4/4/2014	NE	42.89	NA	NA	NA	399.91		7.1	*
3Q14		7/1/2014	NE	38.58	NA	NA	NA	404.22		0.0	*
4Q14		10/2/2014	NE	38.10	NA	NA	NA	404.70		0.0	*
1Q15	442.55	1/6/2015	NE	37.70	NA	NA	NA	404.85	332.34 - 330.34 (110.21 - 112.21)	0.0	*
2Q15		4/6/2015	NE	37.51	NA	NA	NA	405.04		0.2	*
P-11U											
3Q12	443.09	7/2/2012	NE	34.15	NA	NA	NA	408.94	343.17 - 341.17 (99.92 - 101.92)	0.0	*
4Q12		10/1/2012	NE	36.19	NA	NA	NA	406.90		0.0	*
1Q13		1/3/2013	NE	37.80	NA	NA	NA	405.29		0.0	*
2Q13		4/1/2013	NE	38.62	NA	NA	NA	404.47		0.0	*
3Q13		7/3/2013	NE	36.40	NA	NA	NA	406.69		0.0	*
4Q13		10/1/2013	NE	37.20	NA	NA	NA	405.89		0.0	*
1Q14		2/12/2014	NE	38.98	NA	NA	NA	404.11		0.9	*
2Q14		4/4/2014	NE	39.74	NA	NA	NA	403.35		0.2	*
3Q14		7/1/2014	NE	39.18	NA	NA	NA	403.91		0.0	*
4Q14		10/2/2014	NE	38.74	NA	NA	NA	404.35		0.0	*
1Q15	443.17	1/6/2015	NE	37.32	NA	NA	NA	405.85	343.25 - 341.25 (99.92 - 101.92)	0.1	*
2Q15		4/6/2015	NE	38.13	NA	NA	NA	405.04		0.2	*
P-14											
3Q12	442.65	7/2/2012	NE	30.55	NA	NA	NA	412.10	395.32 - 385.32 (47.33 - 57.33)	0.0	*
4Q12		10/1/2012	NE	32.39	NA	NA	NA	410.26		0.0	*
1Q13		1/3/2013	NE	34.01	NA	NA	NA	408.64		0.0	*
2Q13		4/1/2013	NE	33.74	NA	NA	NA	408.91		0.0	*
3Q13		7/3/2013	NE	30.67	NA	NA	NA	411.98		0.0	*
4Q13		10/1/2013	NE	33.18	NA	NA	NA	409.47		4.6	*
1Q14		2/12/2014	NE	35.26	NA	NA	NA	407.39		12.8	*
2Q14		4/2/2014	NE	35.67	NA	NA	NA	406.98		0.0	*
3Q14		7/3/2014	NE	34.40	NA	NA	NA	408.25		25.7	*
4Q14		10/1/2014	NE	34.05	NA	NA	NA	408.60		0.0	*
1Q15	442.74	1/5/2015	NM	NM	NA	NA	NA	NA	395.41 - 385.41 (47.33 - 57.33)	NM	Inaccessible due to ice
2Q15		4/6/2015	NE	34.49	NA	NA	NA	408.25		0.7	*
P-15											
3Q12	443.35	7/2/2012	NE	32.40	NA	NA	NA	410.95	397.90 - 387.90 (45.45 - 55.45)	0.0	*
4Q12		10/1/2012	NE	34.35	NA	NA	NA	409.00		0.6	*
1Q13		1/3/2013	NE	35.81	NA	NA	NA	407.54		0.0	*
2Q13		4/1/2013	NE	36.46	NA	NA	NA	406.89		0.0	*
3Q13		7/3/2013	NE	33.48	NA	NA	NA	409.87		0.0	*
4Q13		10/1/2013	NE	35.03	NA	NA	NA	408.32		0.2	*
1Q14		2/12/2014	NE	37.08	NA	NA	NA	406.27		1.5	*
2Q14		4/4/2014	NE	39.02	NA	NA	NA	404.33		0.3	*
3Q14		7/3/2014	NE	37.04	NA	NA	NA	406.31		0.0	*
4Q14		10/1/2014	NE	36.57	NA	NA	NA	406.78		0.0	*
1Q15	443.69	1/5/2015	NE	36.49	NA	NA	NA	407.20	398.24 - 388.24 (45.45 - 55.45)	0.0	*
2Q15		4/6/2015	NE	36.56	NA	NA	NA	407.13		1.4	*

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
P-16											
3Q12	442.31	7/6/2012	NE	31.16	NA	NA	NA	411.15	396.57 - 386.57 (45.74 - 55.74)	0.0	*
4Q12		10/4/2012	NE	33.35	NA	NA	NA	408.96		0.0	*
1Q13		1/3/2013	NE	34.80	NA	NA	NA	407.51		0.0	*
2Q13		4/1/2013	NE	35.55	NA	NA	NA	406.76		0.0	*
3Q13		7/3/2013	NE	32.10	NA	NA	NA	410.21		0.0	*
4Q13		10/1/2013	NE	33.96	NA	NA	NA	408.35		0.3	*
1Q14		2/12/2014	NE	36.08	NA	NA	NA	406.23		10.1	*
2Q14		4/3/2014	NE	37.82	NA	NA	NA	404.49		42.2	*
3Q14		7/3/2014	NE	36.15	NA	NA	NA	406.16		0.7	*
4Q14		10/1/2014	NE	35.77	NA	NA	NA	406.54		0.0	*
1Q15	442.68	1/5/2015	NE	35.72	NA	NA	NA	406.96	396.94 - 386.94 (45.74 - 55.74)	0.0	*
2Q15		4/6/2015	NE	35.78	NA	NA	NA	406.90		0.3	*
P-43											
3Q12	444.07	7/2/2012	NE	34.95	NA	NA	NA	409.12	380.51 - 370.51 (63.56 - 73.56)	0.0	*
4Q12		10/1/2012	NE	36.80	NA	NA	NA	407.27		0.0	*
1Q13		1/3/2013	NE	38.21	NA	NA	NA	405.86		0.0	*
2Q13		4/1/2013	NE	39.10	NA	NA	NA	404.97		0.0	*
3Q13		7/3/2013	NE	37.04	NA	NA	NA	407.03		0.0	*
4Q13		10/1/2013	NE	37.73	NA	NA	NA	406.34		0.1	*
1Q14		2/12/2014	NE	39.52	NA	NA	NA	404.55		1.2	*
2Q14		4/4/2014	NE	41.35	NA	NA	NA	402.72		0.2	*
3Q14		7/1/2014	NE	39.73	NA	NA	NA	404.34		0.0	*
4Q14		10/2/2014	NE	39.31	NA	NA	NA	404.76		8.5	*
1Q15	444.44	1/6/2015	NE	38.78	NA	NA	NA	405.66	380.88 - 370.88 (63.56 - 73.56)	0.0	*
2Q15		4/6/2015	NE	39.01	NA	NA	NA	405.43		0.3	*
P-53											
3Q12	446.23	7/2/2012	NM	NM	NA	NA	NA	NA	407.73 - 382.73 (38.50 - 63.50)	NM	
4Q12		10/1/2012	NE	41.88	NA	NA	NA	404.35		0.0	
1Q13		1/2/2013	NE	43.06	NA	NA	NA	403.17		0.0	
2Q13		4/1/2013	NE	44.29	NA	NA	NA	401.94		0.1	
3Q13		7/2/2013	NE	42.84	NA	NA	NA	403.39		0.4	
4Q13		10/2/2013	NE	42.20	NA	NA	NA	404.03		0.0	
1Q14		2/10/2014	NE	43.66	NA	NA	NA	402.57		0.0	
2Q14		4/1/2014	NE	44.32	NA	NA	NA	401.91		0.3	
3Q14		7/1/2014	NE	44.49	NA	NA	NA	401.74		0.0	
4Q14		10/2/2014	NE	43.81	NA	NA	NA	402.42		0.0	
1Q15	446.41	1/8/2015	NE	43.82	NA	NA	NA	402.59	407.91 - 382.91 (38.50 - 63.50)	0.0	
2Q15		4/2/2015	NE	44.65	NA	NA	NA	401.76		0.0	
P-54											
3Q12	442.18	7/2/2012	NE	38.73	NA	NA	NA	403.45	404.18 - 379.18 (38.00 - 63.00)	0.0	
4Q12		10/1/2012	NE	40.44	NA	NA	NA	401.74		0.0	
1Q13		1/3/2013	NE	41.62	NA	NA	NA	400.56		0.0	
2Q13		4/1/2013	NE	42.26	NA	NA	NA	399.92		0.0	
3Q13		7/1/2013	NE	39.40	NA	NA	NA	402.78		0.8	
4Q13		10/1/2013	NE	39.74	NA	NA	NA	402.44		0.0	
1Q14		2/10/2014	NE	42.20	NA	NA	NA	399.98		0.2	
2Q14		4/3/2014	NE	42.59	NA	NA	NA	399.59		0.2	
3Q14		7/1/2014	NE	41.88	NA	NA	NA	400.30		0.0	
4Q14		10/1/2014	NE	40.82	NA	NA	NA	401.36		0.0	
1Q15	442.32	1/5/2015	NE	41.69	NA	NA	NA	400.63	404.32 - 379.32 (38.00 - 63.00)	0.0	
2Q15		4/2/2015	NE	43.20	NA	NA	NA	399.12		0.0	
P-55											
3Q12	445.95	7/2/2012	NE	42.33	NA	NA	NA	403.62	406.13 - 381.13 (39.82 - 64.82)	0.0	
4Q12		10/1/2012	NE	44.17	NA	NA	NA	401.78		3.0	
1Q13		1/8/2013	NE	45.24	NA	NA	NA	400.71		0.0	
2Q13	443.78	4/2/2013	NE	43.87	NA	NA	NA	399.91	403.35 - 393.35 (40.43 - 50.43)	202.0	Replaced during 4Q12
3Q13		7/5/2013	NE	41.43	NA	NA	NA	402.35		136.4	
4Q13		10/2/2013	NE	41.58	NA	NA	NA	402.20		52.4	
1Q14		2/13/2014	43.24	43.37	400.41	400.54	0.13	400.51		93.3	
2Q14		4/4/2014	44.32	44.37	399.41	399.46	0.05	399.45		29.1	
3Q14		7/1/2014	43.63	43.76	400.02	400.15	0.13	400.12		192.0	
4Q14		10/3/2014	42.81	43.02	400.76	400.97	0.21	400.93		53.8	
1Q15	443.79	1/8/2015	42.94	43.19	400.60	400.85	0.25	400.80	403.36 - 393.36 (40.43 - 50.43)	93.9	
2Q15		4/1/2015	44.63	44.76	399.03	399.16	0.13	399.13		51.6	

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
P-56											
3Q12	446.02	7/5/2012	NE	43.01	NA	NA	NA	403.01	405.20 - 380.20 (40.82 - 65.82)	0.0	
4Q12		10/2/2012	NE	44.76	NA	NA	NA	401.26		0.0	
1Q13		1/4/2013	NE	45.65	NA	NA	NA	400.37		0.6	
2Q13		4/2/2013	NE	46.40	NA	NA	NA	399.62		0.0	
3Q13		7/5/2013	NE	43.60	NA	NA	NA	402.42		0.0	
4Q13		10/2/2013	NE	44.29	NA	NA	NA	401.73		0.1	
1Q14		2/13/2014	NE	46.35	NA	NA	NA	399.67		0.0	
2Q14		4/4/2014	NE	47.32	NA	NA	NA	398.70		0.3	
3Q14		7/1/2014	NE	46.14	NA	NA	NA	399.88		0.0	
4Q14		10/3/2014	NE	45.20	NA	NA	NA	400.82		0.0	
1Q15	446.14	1/8/2015	NE	46.24	NA	NA	NA	399.90	405.32 - 380.32 (40.82 - 65.82)	0.2	
2Q15		4/1/2015	NE	48.02	NA	NA	NA	398.12		0.0	
P-57											
3Q12	446.53	7/5/2012	NE	43.00	NA	NA	NA	403.53	406.07 - 381.07 (40.46 - 65.46)	0.0	
4Q12		10/1/2012	NE	44.78	NA	NA	NA	401.75		0.0	
1Q13		1/4/2013	NE	45.82	NA	NA	NA	400.71		0.0	
2Q13		4/2/2013	NE	46.63	NA	NA	NA	399.90		0.0	
3Q13		7/5/2013	NE	43.70	NA	NA	NA	402.83		0.0	
4Q13		10/2/2013	NE	44.12	NA	NA	NA	402.41		1.8	
1Q14		2/12/2014	NE	46.57	NA	NA	NA	399.96		2.0	
2Q14		4/7/2014	NE	47.27	NA	NA	NA	399.26		4.1	
3Q14		7/1/2014	NE	46.12	NA	NA	NA	400.41		0.0	
4Q14		10/3/2014	NE	45.25	NA	NA	NA	401.28		0.0	
1Q15	446.96	1/5/2015	NE	47.37	NA	NA	NA	399.59	402.77 - 392.77 (44.19 - 54.19)	0.0	Replaced during 4Q14
2Q15		4/1/2015	NE	45.87	NA	NA	NA	401.09		0.0	
P-58											
3Q12	444.92	7/5/2012	NE	41.04	NA	NA	NA	403.88	404.70 - 379.70 (40.21 - 65.21)	0.0	
4Q12		10/2/2012	NE	42.90	NA	NA	NA	402.02		0.2	
1Q13		1/4/2013	NE	43.80	NA	NA	NA	401.12		0.0	
2Q13		4/2/2013	NE	44.75	NA	NA	NA	400.17		0.0	
3Q13		7/5/2013	NE	41.85	NA	NA	NA	403.07		0.0	
4Q13		10/2/2013	NE	41.97	NA	NA	NA	402.95		4.9	
1Q14		2/12/2014	NE	44.66	NA	NA	NA	400.26		3.6	
2Q14		4/4/2014	NE	45.39	NA	NA	NA	399.53		0.3	
3Q14		7/2/2014	NE	44.25	NA	NA	NA	400.67		0.0	
4Q14		10/3/2014	NE	43.13	NA	NA	NA	401.79		0.0	
1Q15	444.94	1/8/2015	NE	44.98	NA	NA	NA	399.96	404.73 - 379.73 (40.21 - 65.21)	6.3	
2Q15		4/1/2015	NE	46.79	NA	NA	NA	398.15		0.0	
P-59											
3Q12	446.78	7/5/2012	NE	44.00	NA	NA	NA	402.78	398.87 - 373.87 (47.91 - 72.91)	0.0	*
4Q12		10/2/2012	NE	45.83	NA	NA	NA	400.95		389.0	*
1Q13		1/4/2013	NE	46.54	NA	NA	NA	400.24		417.0	*
2Q13		4/2/2013	NE	47.20	NA	NA	NA	399.58		116.0	*
3Q13		7/5/2013	NE	44.47	NA	NA	NA	402.31		186.4	*
4Q13		10/2/2013	NE	45.37	NA	NA	NA	401.41		131.4	*
1Q14		2/13/2014	NE	47.35	NA	NA	NA	399.43		111.4	*
2Q14		4/4/2014	NE	49.04	NA	NA	NA	397.74		0.3	
3Q14		7/1/2014	NE	47.17	NA	NA	NA	399.61		292.1	*
4Q14		10/3/2014	NE	46.39	NA	NA	NA	400.39		397.3	*
1Q15	446.86	1/8/2015	NE	47.00	NA	NA	NA	399.86	398.95 - 373.95 (47.91 - 72.91)	377.9	*
2Q15		4/1/2015	NE	48.86	NA	NA	NA	398.00		0.0	
P-60											
3Q12	446.57	7/5/2012	43.51	43.55	403.02	403.06	0.04	403.05	403.12 - 383.12 (43.45 - 63.45)	19.8	
4Q12		10/2/2012	45.33	45.44	401.13	401.24	0.11	401.22		44.0	
1Q13		1/4/2013	NE	46.19	NA	NA	NA	400.38		9.9	
2Q13		4/2/2013	46.96	47.04	399.53	399.61	0.08	399.60		8.8	
3Q13		7/5/2013	44.41	44.46	402.11	402.16	0.05	402.15		42.7	
4Q13		10/2/2013	44.91	44.99	401.58	401.66	0.08	401.65		28.3	
1Q14		2/13/2014	46.68	46.79	399.78	399.89	0.11	399.87		2.4	
2Q14		4/4/2014	47.74	47.77	398.80	398.83	0.03	398.83		25.1	
3Q14		7/1/2014	46.85	46.93	399.64	399.72	0.08	399.71		309.3	
4Q14		10/3/2014	46.09	46.17	400.40	400.48	0.08	400.47		127.9	
1Q15	446.69	1/8/2015	46.29	46.49	400.20	400.40	0.20	400.36	403.24 - 383.24 (43.45 - 63.45)	6.1	
2Q15		4/1/2015	48.04	48.07	398.62	398.65	0.03	398.64		20.0	

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
P-60-11											
3Q12	446.18	7/5/2012	NE	42.64	NA	NA	NA	403.54	413.03 - 383.03 (33.15 - 63.15)	0.0	
4Q12		10/2/2012	44.32	44.41	401.77	401.86	0.09	401.84		0.1	
1Q13		1/4/2013	NE	45.06	NA	NA	NA	401.12		2.0	
2Q13		4/2/2013	NE	45.72	NA	NA	NA	400.46		0.0	
3Q13		7/5/2013	NE	43.81	NA	NA	NA	402.37		0.0	
4Q13		10/2/2013	NE	43.43	NA	NA	NA	402.75		0.0	
1Q14		2/13/2014	NE	44.99	NA	NA	NA	401.19		0.0	
2Q14		4/4/2014	NE	45.58	NA	NA	NA	400.60		0.2	
3Q14		7/1/2014	NE	45.74	NA	NA	NA	400.44		1.3	
4Q14		10/3/2014	NE	44.62	NA	NA	NA	401.56		0.0	
1Q15	446.26	1/8/2015	NE	44.85	NA	NA	NA	401.41	413.11 - 383.11 (33.15 - 63.15)	0.0	
2Q15		4/1/2015	NE	46.22	NA	NA	NA	400.04		0.0	
P-60-12											
3Q12	443.31	7/5/2012	NE	40.23	NA	NA	NA	403.08	383.31 - 373.31 (60.00 - 70.00)	0.0	*
4Q12		10/2/2012	NE	44.15	NA	NA	NA	399.16		0.0	*
1Q13		1/4/2013	NE	42.97	NA	NA	NA	400.34		2.4	*
2Q13		4/2/2013	NE	43.77	NA	NA	NA	399.54		0.0	*
3Q13		7/5/2013	NE	41.20	NA	NA	NA	402.11		0.0	*
4Q13		10/2/2013	NE	41.72	NA	NA	NA	401.59		1.1	*
1Q14		2/13/2014	NE	43.45	NA	NA	NA	399.86		72.6	*
2Q14		4/4/2014	NE	44.54	NA	NA	NA	398.77		43.5	*
3Q14		7/1/2014	NE	43.66	NA	NA	NA	399.65		46.2	*
4Q14		10/3/2014	NE	42.93	NA	NA	NA	400.38		0.6	*
1Q15	443.43	1/8/2015	NE	43.16	NA	NA	NA	400.27	383.43 - 373.43 (60.00 - 70.00)	28.1	*
2Q15		4/1/2015	NE	44.83	NA	NA	NA	398.60		86.9	*
P-60-12S											
3Q12	443.33	7/5/2012	NE	19.48	NA	NA	NA	423.85	429.49 - 419.49 (13.84 - 23.84)	0.0	
4Q12		10/2/2012	NE	19.04	NA	NA	NA	424.29		0.0	
1Q13		1/4/2013	NE	19.35	NA	NA	NA	423.98		3.5	
2Q13		4/2/2013	NM	NM	NA	NA	NA	NA		NM	
3Q13		7/5/2013	NE	17.73	NA	NA	NA	425.60		0.0	
4Q13		10/2/2013	NE	19.03	NA	NA	NA	424.30		0.3	
1Q14		2/13/2014	NE	19.02	NA	NA	NA	424.31		0.0	
2Q14		4/4/2014	NE	19.03	NA	NA	NA	424.30		0.5	
3Q14		7/1/2014	NE	18.00	NA	NA	NA	425.33		1.6	
4Q14		10/3/2014	NE	18.95	NA	NA	NA	424.38		0.3	
1Q15	443.43	1/8/2015	NE	20.50	NA	NA	NA	422.93	429.59 - 419.59 (13.84 - 23.84)	1.1	
2Q15		4/1/2015	NE	NE	NA	NA	NA	NA		0.0	Well Dry
P-60-13											
3Q12	442.43	7/5/2012	NE	39.37	NA	NA	NA	403.06	402.43 - 382.43 (40.00 - 60.00)	0.0	*
4Q12		10/2/2012	NE	40.61	NA	NA	NA	401.82		0.0	
1Q13		1/4/2013	NE	41.55	NA	NA	NA	400.88		0.7	
2Q13		4/2/2013	NM	NM	NA	NA	NA	NA		NM	
3Q13		7/5/2013	NE	40.53	NA	NA	NA	401.90		0.0	
4Q13		10/2/2013	NE	39.98	NA	NA	NA	402.45		0.6	*
1Q14		2/13/2014	NM	NM	NA	NA	NA	NA		NM	
2Q14		4/4/2014	NE	42.81	NA	NA	NA	399.62		0.7	
3Q14		7/1/2014	NE	42.31	NA	NA	NA	400.12		0.0	
4Q14		10/3/2014	NE	40.78	NA	NA	NA	401.65		15.0	
1Q15	442.92	1/8/2015	NE	40.61	NA	NA	NA	402.31	402.92 - 382.92 (40.00 - 60.00)	4.5	
2Q15		4/1/2015	NE	41.22	NA	NA	NA	401.70		0.0	
P-60-13S											
3Q12	442.39	7/5/2012	NE	17.87	NA	NA	NA	424.52	432.39 - 422.39 (10.00 - 20.00)	0.0	
4Q12		10/2/2012	NE	17.97	NA	NA	NA	424.42		0.7	
1Q13		1/4/2013	NM	NM	NA	NA	NA	NA		NM	
2Q13		4/2/2013	NM	NM	NA	NA	NA	NA		NM	
3Q13		7/5/2013	NE	15.66	NA	NA	NA	426.73		8.2	
4Q13		10/2/2013	NE	17.60	NA	NA	NA	424.79		2.8	
1Q14		2/13/2014	NM	NM	NA	NA	NA	NA		NM	
2Q14		4/4/2014	NE	17.16	NA	NA	NA	425.23		0.3	
3Q14		7/1/2014	NE	17.16	NA	NA	NA	425.23		0.0	
4Q14		10/3/2014	NE	17.44	NA	NA	NA	424.95		0.0	
1Q15	442.90	1/8/2015	NE	17.81	NA	NA	NA	425.09	432.90 - 422.90 (10.00 - 20.00)	0.2	
2Q15		4/1/2015	NE	18.80	NA	NA	NA	424.10		0.7	

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
P-60-S											
3Q12	446.98	7/5/2012	43.12	43.26	403.72	403.86	0.14	403.83	410.50 - 395.50 (36.48 - 51.48)	0.7	
4Q12		10/4/2012	43.94	45.84	401.14	403.04	1.90	402.66		0.3	
1Q13		1/4/2013	45.34	45.95	401.03	401.64	0.61	401.52		0.0	
2Q13		4/2/2013	46.33	46.39	400.59	400.65	0.06	400.64		0.1	
3Q13		7/5/2013	NE	44.45	NA	NA	NA	402.53		0.0	
4Q13		10/2/2013	43.56	44.49	402.49	403.42	0.93	403.23		0.2	
1Q14		2/13/2014	45.48	45.86	401.12	401.50	0.38	401.42		0.3	
2Q14		4/4/2014	46.38	46.57	400.41	400.60	0.19	400.56		0.2	
3Q14		7/1/2014	46.35	46.37	400.61	400.63	0.02	400.63		0.1	
4Q14		10/3/2014	NE	45.38	NA	NA	NA	401.60		0.9	
1Q15	446.84	1/8/2015	45.08	45.70	401.14	401.76	0.62	401.64	410.36 - 395.36 (36.48 - 51.48)	9.1	
2Q15		4/1/2015	46.62	47.07	399.77	400.22	0.45	400.13		0.1	
P-61											
3Q12	444.27	7/3/2012	NE	41.53	NA	NA	NA	402.74	398.59 - 373.59 (45.68 - 70.68)	0.0	*
4Q12		10/2/2012	NE	43.36	NA	NA	NA	400.91		24.3	*
1Q13		1/4/2013	43.82	45.95	398.32	400.45	2.13	400.02		38.8	*
2Q13		4/2/2013	44.78	46.64	397.63	399.49	1.86	399.12		23.1	*
3Q13		7/5/2013	42.52	42.56	401.71	401.75	0.04	401.74		186.4	*
4Q13		10/2/2013	43.08	43.14	401.13	401.19	0.06	401.18		10.9	*
1Q14		2/12/2014	44.62	46.17	398.10	399.65	1.55	399.34		410.7	*
2Q14		4/4/2014	45.80	45.81	398.46	398.47	0.01	398.47		13.0	
3Q14		7/2/2014	44.75	45.49	398.78	399.52	0.74	399.37		150.6	*
4Q14		10/2/2014	43.47	44.23	400.04	400.80	0.76	400.64		269.9	*
1Q15	444.47	1/5/2015	44.62	46.14	398.33	399.85	1.52	399.55	398.80 - 373.80 (45.68 - 70.68)	431.0	*
2Q15		4/1/2015	46.06	48.03	396.44	398.41	1.97	398.02		0.0	
P-62											
3Q12	442.32	7/3/2012	39.13	39.15	403.17	403.19	0.02	403.19	400.85 - 375.85 (41.47 - 66.47)	0.0	*
4Q12		10/1/2012	40.61	42.35	399.97	401.71	1.74	401.37		3.2	*
1Q13		1/8/2013	NE	30.39	NA	NA	NA	411.93		0.0	*
2Q13		4/2/2013	42.81	44.32	398.00	399.51	1.51	399.21		0.0	
3Q13		7/1/2013	40.77	41.88	400.44	401.55	1.11	401.33		32.6	*
4Q13		10/2/2013	40.61	42.26	400.06	401.71	1.65	401.38		62.6	*
1Q14		2/12/2014	42.35	43.85	398.47	399.97	1.50	399.67		198.1	
2Q14		4/4/2014	43.51	45.28	397.04	398.81	1.77	398.46		0.8	
3Q14		7/2/2014	42.58	43.69	398.63	399.74	1.11	399.52		0.0	
4Q14		10/3/2014	41.64	42.89	399.43	400.68	1.25	400.43		0.9	
1Q15	442.43	1/9/2015	42.48	43.96	398.47	399.95	1.48	399.65	400.96 - 375.96 (41.47 - 66.47)	0.4	
2Q15		4/1/2015	43.65	45.18	397.25	398.78	1.53	398.47		0.0	
P-63											
3Q12	445.75	7/3/2012	NE	42.94	NA	NA	NA	402.81	398.46 - 373.46 (47.29 - 72.29)	0.0	*
4Q12		10/1/2012	NE	44.55	NA	NA	NA	401.20		104.0	*
1Q13		1/4/2013	NE	46.03	NA	NA	NA	399.72		0.0	*
2Q13		4/1/2013	NE	46.98	NA	NA	NA	398.77		0.0	*
3Q13		7/5/2013	NE	45.41	NA	NA	NA	400.34		142.0	*
4Q13		10/2/2013	44.98	45.01	400.74	400.77	0.03	400.76		33.4	*
1Q14		2/12/2014	NE	45.06	NA	NA	NA	400.69		22.9	*
2Q14		4/4/2014	47.98	48.14	397.61	397.77	0.16	397.74		0.3	
3Q14		7/2/2014	46.80	46.82	398.93	398.95	0.02	398.95		47.5	*
4Q14		10/2/2014	45.90	45.94	399.81	399.85	0.04	399.84		70.3	*
1Q15	445.85	1/9/2015	46.23	46.25	399.60	399.62	0.02	399.62	398.56 - 373.56 (47.29 - 72.29)	14.6	*
2Q15		4/1/2015	47.30	47.70	398.15	398.55	0.40	398.47		12.8	
P-64											
3Q12	446.52	7/3/2012	44.40	44.41	402.11	402.12	0.01	402.12	399.29 - 374.29 (47.23 - 72.23)	0.0	*
4Q12		10/1/2012	45.62	45.68	400.84	400.90	0.06	400.89		34.5	*
1Q13		1/4/2013	NE	47.84	NA	NA	NA	398.68		103.0	
2Q13		4/1/2013	NE	48.23	NA	NA	NA	398.29		0.0	
3Q13		7/5/2013	46.95	46.97	399.55	399.57	0.02	399.57		96.5	*
4Q13		10/2/2013	46.25	46.31	400.21	400.27	0.06	400.26		41.4	*
1Q14		2/12/2014	47.93	47.94	398.58	398.59	0.01	398.59		114.2	
2Q14		4/4/2014	49.60	49.68	396.84	396.92	0.08	396.90		6.8	
3Q14		7/2/2014	48.08	48.36	398.16	398.44	0.28	398.38		0.0	
4Q14		10/2/2014	47.30	47.62	398.90	399.22	0.32	399.16		336.2	
1Q15	446.89	1/9/2015	47.29	47.51	399.38	399.60	0.22	399.56	399.66 - 374.66 (47.23 - 72.23)	12.6	
2Q15		4/1/2015	48.44	49.20	397.69	398.45	0.76	398.30		79.7	

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
P-65											
3Q12	444.53	7/3/2012	NE	41.76	NA	NA	NA	402.77	396.91 - 371.91 (47.62 - 72.62)	0.0	*
4Q12		10/1/2012	NE	43.00	NA	NA	NA	401.53		0.5	*
1Q13		1/4/2013	NE	44.61	NA	NA	NA	399.92		0.0	*
2Q13		4/1/2013	NM	NM	NA	NA	NA	NA		NM	Well damaged
3Q13		7/3/2013	NM	NM	NA	NA	NA	NA		NM	Well damaged
4Q13	444.60	10/2/2013	NE	43.11	NA	NA	NA	401.49	397.58 - 372.58 (47.02 - 72.02)	21.2	** Well repaired during 3Q13; Well surveyed during 4Q13
1Q14		2/12/2014	NE	44.91	NA	NA	NA	399.69		2.3	*
2Q14		4/4/2014	NE	46.68	NA	NA	NA	397.92		0.6	*
3Q14		7/2/2014	NE	45.37	NA	NA	NA	399.23		0.0	*
4Q14		10/2/2014	NE	44.44	NA	NA	NA	400.16		16.5	*
1Q15		1/5/2015	NE	44.46	NA	NA	NA	400.14		5.5	*
2Q15		4/3/2015	NE	46.27	NA	NA	NA	398.33		7.6	*
P-66											
3Q12	436.70	7/5/2012	32.60	32.61	404.09	404.10	0.01	404.10	401.98 - 376.98 (34.72 - 59.72)	3.3	*
4Q12		10/2/2012	NE	34.55	NA	NA	NA	402.15		5.0	*
1Q13		1/2/2013	NE	35.40	NA	NA	NA	401.30		66.2	
2Q13		4/2/2013	NE	36.41	NA	NA	NA	400.29		0.6	
3Q13		7/2/2013	NE	33.55	NA	NA	NA	403.15		3.5	*
4Q13		10/2/2013	NE	33.44	NA	NA	NA	403.26		54.0	*
1Q14		2/11/2014	NE	36.39	NA	NA	NA	400.31		13.1	
2Q14		4/4/2014	NE	36.99	NA	NA	NA	399.71		0.2	
3Q14		7/2/2014	NE	35.80	NA	NA	NA	400.90		0.9	
4Q14		10/3/2014	NE	34.77	NA	NA	NA	401.93		0.4	
1Q15	436.81	1/9/2015	NE	36.73	NA	NA	NA	400.08	402.09 - 377.09 (34.72 - 59.72)	52.6	
2Q15		4/3/2015	NE	38.26	NA	NA	NA	398.55		0.0	
P-67											
3Q12	444.13	7/2/2012	NE	38.90	NA	NA	NA	405.23	402.16 - 377.16 (41.98 - 66.98)	0.0	*
4Q12		10/2/2012	NE	40.81	NA	NA	NA	403.32		0.0	*
1Q13		1/2/2013	NE	41.69	NA	NA	NA	402.44		11.1	*
2Q13		4/2/2013	42.79	42.80	401.33	401.34	0.01	401.34		46.5	
3Q13		7/2/2013	NE	40.29	NA	NA	NA	403.84		0.0	*
4Q13		10/2/2013	39.78	39.80	404.33	404.35	0.02	404.35		17.3	*
1Q14		2/11/2014	42.60	42.63	401.50	401.53	0.03	401.52		60.9	
2Q14		4/4/2014	NE	43.35	NA	NA	NA	400.78		1.2	
3Q14		7/3/2014	NE	42.39	NA	NA	NA	401.74		1.8	
4Q14		10/3/2014	NE	41.37	NA	NA	NA	402.76		45.9	*
1Q15	444.10	1/9/2015	42.59	42.61	401.49	401.51	0.02	401.51	402.12 - 377.12 (41.98 - 66.98)	23.0	
2Q15		4/3/2015	NE	44.16	NA	NA	NA	399.94		0.1	
P-68											
3Q12	445.07	7/5/2012	42.08	42.12	402.95	402.99	0.04	402.98	399.81 - 374.81 (45.26 - 70.26)	288.0	*
4Q12		10/2/2012	43.85	44.04	401.03	401.22	0.19	401.18		349.0	*
1Q13		1/4/2013	NM	NM	NA	NA	NA	NA		NM	
2Q13		4/2/2013	45.40	45.54	399.53	399.67	0.14	399.64		74.3	
3Q13		7/5/2013	43.05	43.12	401.95	402.02	0.07	402.01		197.0	*
4Q13		10/2/2013	43.42	43.52	401.55	401.65	0.10	401.63		101.6	*
1Q14		2/13/2014	45.18	45.29	399.78	399.89	0.11	399.87		172.6	*
2Q14		4/7/2014	45.94	46.28	398.79	399.13	0.34	399.06		9.3	
3Q14		7/2/2014	45.27	45.32	399.75	399.80	0.05	399.79		215.5	
4Q14		10/3/2014	44.56	44.67	400.40	400.51	0.11	400.49		254.8	*
1Q15	445.18	1/8/2015	44.80	44.85	400.33	400.38	0.05	400.37	399.92 - 374.92 (45.26 - 70.26)	277.7	*
2Q15		4/1/2015	46.52	46.63	398.55	398.66	0.11	398.64		206.4	
P-69											
3Q12	443.18	7/5/2012	NE	40.61	NA	NA	NA	402.57	402.36 - 377.36 (40.82 - 65.82)	0.0	*
4Q12		10/2/2012	NE	42.46	NA	NA	NA	400.72		0.8	
1Q13		1/4/2013	NE	43.85	NA	NA	NA	399.33		0.0	
2Q13		4/2/2013	NE	43.94	NA	NA	NA	399.24		0.0	
3Q13		7/5/2013	NE	41.36	NA	NA	NA	401.82		0.0	
4Q13		10/2/2013	NE	42.17	NA	NA	NA	401.01		0.5	
1Q14		2/13/2014	NE	43.85	NA	NA	NA	399.33		79.9	
2Q14		4/7/2014	NE	44.88	NA	NA	NA	398.30		0.2	
3Q14		7/2/2014	NE	44.00	NA	NA	NA	399.18		0.0	
4Q14		10/2/2014	NE	43.01	NA	NA	NA	400.17		0.0	
1Q15	443.40	1/9/2015	NE	44.05	NA	NA	NA	399.35	402.58 - 377.58 (40.82 - 65.82)	0.9	
2Q15		4/3/2015	NE	45.51	NA	NA	NA	397.89		0.0	

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
P-70											
3Q12	442.83	7/3/2012	NE	39.83	NA	NA	NA	403.00	398.16 - 373.16 (44.67 - 69.67)	0.0	*
4Q12		10/1/2012	NE	41.67	NA	NA	NA	401.16		0.0	*
1Q13		1/4/2013	NE	42.72	NA	NA	NA	400.11		1.7	*
2Q13		4/2/2013	NE	43.59	NA	NA	NA	399.24		211.0	*
3Q13		7/5/2013	NE	41.06	NA	NA	NA	401.77		134.2	*
4Q13		10/2/2013	NE	41.52	NA	NA	NA	401.31		99.1	*
1Q14		2/12/2014	NE	43.28	NA	NA	NA	399.55		85.0	*
2Q14		4/4/2014	44.21	45.35	397.48	398.62	1.14	398.39		200.7	*
3Q14		7/2/2014	43.22	43.88	398.95	399.61	0.66	399.48		319.6	*
4Q14		10/2/2014	42.08	42.72	400.11	400.75	0.64	400.62		299.6	*
1Q15	442.95	1/8/2015	42.79	43.42	399.53	400.16	0.63	400.03	398.28 - 373.28 (44.67 - 69.67)	208.3	*
2Q15		4/1/2015	44.42	45.77	397.18	398.53	1.35	398.26		180.4	
P-71											
3Q12	444.83	7/3/2012	NE	40.90	NA	NA	NA	403.93	402.22 - 377.22 (42.61 - 67.61)	0.0	*
4Q12		10/2/2012	42.69	42.75	402.08	402.14	0.06	402.13		23.0	
1Q13		1/4/2013	NE	43.83	NA	NA	NA	401.00		1.1	
2Q13		4/2/2013	NE	44.54	NA	NA	NA	400.29		1.2	
3Q13		7/5/2013	NE	42.65	NA	NA	NA	402.18		82.5	
4Q13		10/2/2013	NE	42.53	NA	NA	NA	402.30		53.0	*
1Q14		2/13/2014	NE	44.35	NA	NA	NA	400.48		0.0	
2Q14		4/4/2014	NE	45.48	NA	NA	NA	399.35		0.8	
3Q14		7/3/2014	NE	44.61	NA	NA	NA	400.22		3.9	
4Q14		10/2/2014	NE	43.43	NA	NA	NA	401.40		185.5	
1Q15	444.94	1/5/2015	NE	43.98	NA	NA	NA	400.96	402.33 - 377.33 (42.61 - 67.61)	72.6	*
2Q15		4/1/2015	NE	45.83	NA	NA	NA	399.11		0.4	
P-72											
3Q12	444.43	7/3/2012	NE	40.30	NA	NA	NA	404.13	398.66 - 373.66 (45.77 - 70.77)	0.0	*
4Q12		10/1/2012	NE	41.88	NA	NA	NA	402.55		5.1	*
1Q13		1/4/2013	NE	43.27	NA	NA	NA	401.16		2.2	*
2Q13		4/1/2013	NE	44.23	NA	NA	NA	400.20		0.3	*
3Q13		7/5/2013	NE	42.36	NA	NA	NA	402.07		2.0	*
4Q13		10/2/2013	NE	41.88	NA	NA	NA	402.55		2.7	*
1Q14		2/12/2014	NE	43.86	NA	NA	NA	400.57		37.2	*
2Q14		4/4/2014	NE	45.12	NA	NA	NA	399.31		2.2	*
3Q14		7/2/2014	NE	44.19	NA	NA	NA	400.24		6.5	*
4Q14		10/2/2014	NE	43.02	NA	NA	NA	401.41		16.2	*
1Q15	444.49	1/8/2015	NE	43.63	NA	NA	NA	400.86	398.72 - 373.72 (45.77 - 70.77)	23.1	*
2Q15		4/1/2015	NE	45.72	NA	NA	NA	398.77		12.8	*
P-73											
3Q12	443.76	7/5/2012	NE	40.28	NA	NA	NA	403.48	402.16 - 377.16 (41.59 - 66.59)	0.3	*
4Q12		10/2/2012	NE	42.02	NA	NA	NA	401.74		7.5	
1Q13		1/4/2013	NE	43.04	NA	NA	NA	400.72		0.0	
2Q13		4/1/2013	NE	43.93	NA	NA	NA	399.83		0.0	
3Q13		7/5/2013	NE	41.48	NA	NA	NA	402.28		18.3	*
4Q13		10/2/2013	NE	41.68	NA	NA	NA	402.08		50.3	
1Q14		2/12/2014	NE	43.98	NA	NA	NA	399.78		70.1	
2Q14		4/7/2014	NE	44.82	NA	NA	NA	398.94		0.4	
3Q14		7/2/2014	NE	43.54	NA	NA	NA	400.22		0.0	
4Q14		10/3/2014	NE	42.69	NA	NA	NA	401.07		0.7	
1Q15	443.86	1/5/2015	NE	45.24	NA	NA	NA	398.62	402.27 - 377.27 (41.59 - 66.59)	8.0	
2Q15		4/3/2015	NE	46.59	NA	NA	NA	397.27		0.0	
P-74											
3Q12	442.63	7/5/2012	NE	42.14	NA	NA	NA	400.49	398.20 - 373.20 (44.43 - 69.43)	0.0	*
4Q12		10/2/2012	NE	41.78	NA	NA	NA	400.85		0.0	*
1Q13		1/4/2013	NE	42.55	NA	NA	NA	400.08		0.2	*
2Q13		4/2/2013	NE	43.23	NA	NA	NA	399.40		0.0	*
3Q13		7/5/2013	NE	40.55	NA	NA	NA	402.08		0.0	*
4Q13		10/2/2013	NE	41.49	NA	NA	NA	401.14		0.5	*
1Q14		1/14/2014	NE	43.18	NA	NA	NA	399.45		2.8	*
2Q14		4/7/2014	NE	43.86	NA	NA	NA	398.77		7.5	*
3Q14		7/2/2014	NE	43.25	NA	NA	NA	399.38		0.1	*
4Q14		10/2/2014	NE	42.21	NA	NA	NA	400.42		0.0	*
1Q15	442.72	1/9/2015	NE	43.63	NA	NA	NA	399.09	398.29 - 373.29 (44.43 - 69.43)	0.1	*
2Q15		4/3/2015	NE	44.85	NA	NA	NA	397.87		0.0	

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
P-75											
3Q12	446.32	7/2/2012	42.14	42.14	404.18	404.18	0.00	404.18	403.19 - 378.19 (43.13 - 68.13)	0.0	*
4Q12		10/2/2012	44.10	44.20	402.12	402.22	0.10	402.20		1.9	
1Q13		1/2/2013	NE	44.87	NA	NA	NA	401.45		3.1	
2Q13		4/2/2013	NE	46.03	NA	NA	NA	400.29		0.7	
3Q13		7/2/2013	NE	43.43	NA	NA	NA	402.89		0.0	
4Q13		10/2/2013	NE	42.92	NA	NA	NA	403.40		3.7	*
1Q14		2/11/2014	NE	46.05	NA	NA	NA	400.27		4.1	
2Q14		4/4/2014	NE	46.69	NA	NA	NA	399.63		0.3	
3Q14		7/3/2014	NE	45.59	NA	NA	NA	400.73		0.0	
4Q14		10/3/2014	NE	44.52	NA	NA	NA	401.80		0.1	
1Q15	446.42	1/9/2015	NE	46.74	NA	NA	NA	399.68	403.29 - 378.29 (43.13 - 68.13)	0.1	
2Q15		4/3/2015	48.23	48.25	398.17	398.19	0.02	398.19		0.0	
P-82A											
3Q12	434.69	7/2/2012	NE	27.34	NA	NA	NA	407.35	401.48 - 386.48 (33.21 - 48.21)	0.0	*
4Q12		10/2/2012	NE	29.07	NA	NA	NA	405.62		0.0	*
1Q13		1/3/2013	NE	30.09	NA	NA	NA	404.60		0.0	*
2Q13		4/2/2013	NE	30.77	NA	NA	NA	403.92		0.2	*
3Q13		7/2/2013	NE	27.75	NA	NA	NA	406.94		0.0	*
4Q13		10/2/2013	NE	28.20	NA	NA	NA	406.49		0.0	*
1Q14		2/10/2014	NE	30.47	NA	NA	NA	404.22		8.9	*
2Q14		4/4/2014	NE	32.21	NA	NA	NA	402.48		0.0	*
3Q14		7/2/2014	NE	30.08	NA	NA	NA	404.61		0.6	*
4Q14		10/2/2014	NE	29.25	NA	NA	NA	405.44		0.0	*
1Q15	435.02	1/8/2015	NE	29.59	NA	NA	NA	405.43	401.81 - 386.81 (33.21 - 48.21)	0.1	*
2Q15		4/3/2015	NE	30.99	NA	NA	NA	404.03		0.0	*
P-82B											
3Q12	434.44	7/2/2012	NE	27.07	NA	NA	NA	407.37	370.84 - 368.84 (63.60 - 65.60)	0.0	*
4Q12		10/2/2012	NE	28.81	NA	NA	NA	405.63		0.0	*
1Q13		1/3/2013	NE	29.82	NA	NA	NA	404.62		0.0	*
2Q13		4/2/2013	NE	30.50	NA	NA	NA	403.94		0.4	*
3Q13		7/2/2013	NE	27.49	NA	NA	NA	406.95		0.0	*
4Q13		10/2/2013	NE	27.94	NA	NA	NA	406.50		0.0	*
1Q14		2/10/2014	NE	30.20	NA	NA	NA	404.24		0.3	*
2Q14		4/4/2014	NE	32.93	NA	NA	NA	401.51		0.0	*
3Q14		7/2/2014	NE	29.79	NA	NA	NA	404.65		0.7	*
4Q14		10/2/2014	NE	28.94	NA	NA	NA	405.50		0.0	*
1Q15	434.48	1/8/2015	NE	29.32	NA	NA	NA	405.16	370.88 - 368.88 (63.60 - 65.60)	0.2	*
2Q15		4/3/2015	NE	30.73	NA	NA	NA	403.75		0.0	*
P-82C											
3Q12	434.16	7/2/2012	NE	27.11	NA	NA	NA	407.05	351.39 - 349.39 (82.77 - 84.77)	0.0	*
4Q12		10/2/2012	NE	28.85	NA	NA	NA	405.31		0.0	*
1Q13		1/3/2013	NE	29.86	NA	NA	NA	404.30		0.0	*
2Q13		4/2/2013	NE	30.54	NA	NA	NA	403.62		0.8	*
3Q13		7/2/2013	NE	27.51	NA	NA	NA	406.65		0.0	*
4Q13		10/2/2013	NE	27.95	NA	NA	NA	406.21		0.0	*
1Q14		2/10/2014	NE	30.23	NA	NA	NA	403.93		0.2	*
2Q14		4/4/2014	NE	28.42	NA	NA	NA	405.74		0.1	*
3Q14		7/2/2014	NE	29.65	NA	NA	NA	404.51		0.7	*
4Q14		10/2/2014	NE	29.09	NA	NA	NA	405.07		0.0	*
1Q15	434.21	1/8/2015	NE	29.02	NA	NA	NA	405.19	351.44 - 349.44 (82.77 - 84.77)	0.2	*
2Q15		4/3/2015	NE	30.44	NA	NA	NA	403.77		0.4	*
P-82D											
3Q12	434.85	7/2/2012	NE	27.91	NA	NA	NA	406.94	323.43 - 321.43 (111.42 - 113.42)	0.0	*
4Q12		10/2/2012	NE	29.62	NA	NA	NA	405.23		0.0	*
1Q13		1/3/2013	NE	30.65	NA	NA	NA	404.20		0.0	*
2Q13		4/2/2013	NE	31.31	NA	NA	NA	403.54		0.2	*
3Q13		7/2/2013	NE	28.24	NA	NA	NA	406.61		0.0	*
4Q13		10/2/2013	NE	28.74	NA	NA	NA	406.11		0.0	*
1Q14		2/10/2014	NE	31.00	NA	NA	NA	403.85		14.5	*
2Q14		4/4/2014	NE	35.40	NA	NA	NA	399.45		0.2	*
3Q14		7/2/2014	NE	30.61	NA	NA	NA	404.24		0.4	*
4Q14		10/2/2014	NE	29.74	NA	NA	NA	405.11		0.0	*
1Q15	434.89	1/6/2015	NE	29.80	NA	NA	NA	405.09	323.47 - 321.47 (111.42 - 113.42)	0.1	*
2Q15		4/3/2015	NE	31.24	NA	NA	NA	403.65		0.4	*

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
P-83A											
3Q12	445.23	7/2/2012	NE	40.50	NA	NA	NA	404.73	398.58 - 383.58 (46.65 - 61.65)	0.0	*
4Q12		10/1/2012	NE	42.29	NA	NA	NA	402.94		0.0	*
1Q13		1/3/2013	NE	43.85	NA	NA	NA	401.38		0.0	*
2Q13		4/2/2013	NE	44.75	NA	NA	NA	400.48		0.0	*
3Q13		7/3/2013	NE	43.44	NA	NA	NA	401.79		0.0	*
4Q13		10/1/2013	NE	43.55	NA	NA	NA	401.68		0.2	*
1Q14		2/11/2014	NE	44.72	NA	NA	NA	400.51		0.6	*
2Q14		4/1/2014	NE	45.74	NA	NA	NA	399.49		0.0	*
3Q14		7/1/2014	NE	45.12	NA	NA	NA	400.11		0.0	*
4Q14		10/1/2014	NE	44.60	NA	NA	NA	400.63		0.0	*
1Q15	445.36	1/6/2015	NE	44.80	NA	NA	NA	400.56	398.71 - 383.71 (46.65 - 61.65)	0.0	*
2Q15		4/6/2015	NE	45.02	NA	NA	NA	400.34		0.1	*
P-83B											
3Q12	445.47	7/2/2012	NE	40.85	NA	NA	NA	404.62	375.82 - 373.82 (69.65 - 71.65)	0.0	*
4Q12		10/1/2012	NE	42.57	NA	NA	NA	402.90		0.0	*
1Q13		1/3/2013	NE	44.13	NA	NA	NA	401.34		0.0	*
2Q13		4/2/2013	NE	44.99	NA	NA	NA	400.48		0.0	*
3Q13		7/3/2013	NE	43.71	NA	NA	NA	401.76		0.0	*
4Q13		10/1/2013	NE	43.80	NA	NA	NA	401.67		0.2	*
1Q14		2/11/2014	NE	44.97	NA	NA	NA	400.50		0.3	*
2Q14		4/1/2014	NE	46.01	NA	NA	NA	399.46		0.0	*
3Q14		7/1/2014	NE	45.39	NA	NA	NA	400.08		0.0	*
4Q14		10/1/2014	NE	44.87	NA	NA	NA	400.60		0.0	*
1Q15	445.55	1/6/2015	NE	44.94	NA	NA	NA	400.61	375.90 - 373.90 (69.65 - 71.65)	0.0	*
2Q15		4/6/2015	NE	45.43	NA	NA	NA	400.12		0.1	*
P-83C											
3Q12	445.64	7/2/2012	NE	40.96	NA	NA	NA	404.68	353.25 - 351.25 (92.39 - 94.39)	0.0	*
4Q12		10/1/2012	NE	43.04	NA	NA	NA	402.60		0.0	*
1Q13		1/3/2013	NE	44.59	NA	NA	NA	401.05		0.0	*
2Q13		4/2/2013	NE	45.41	NA	NA	NA	400.23		0.0	*
3Q13		7/3/2013	NE	44.17	NA	NA	NA	401.47		0.0	*
4Q13		10/1/2013	NE	44.27	NA	NA	NA	401.37		0.6	*
1Q14		2/11/2014	NE	45.43	NA	NA	NA	400.21		13.7	*
2Q14		4/1/2014	NE	46.40	NA	NA	NA	399.24		0.0	*
3Q14		7/1/2014	NE	45.84	NA	NA	NA	399.80		0.0	*
4Q14		10/1/2014	NE	45.00	NA	NA	NA	400.64		0.4	*
1Q15	445.78	1/6/2015	NE	45.53	NA	NA	NA	400.25	353.39 - 351.39 (92.39 - 94.39)	0.0	*
2Q15		4/6/2015	NE	45.42	NA	NA	NA	400.36		0.1	*
P-83D											
3Q12	445.55	7/2/2012	NE	40.12	NA	NA	NA	405.43	311.84 - 309.84 (133.71 - 135.71)	0.0	*
4Q12		10/1/2012	NE	42.98	NA	NA	NA	402.57		0.0	*
1Q13		1/3/2013	NE	44.54	NA	NA	NA	401.01		0.0	*
2Q13		4/2/2013	NE	45.38	NA	NA	NA	400.17		0.0	*
3Q13		7/3/2013	NE	44.12	NA	NA	NA	401.43		0.0	*
4Q13		10/1/2013	NE	44.21	NA	NA	NA	401.34		0.1	*
1Q14		2/11/2014	NE	45.40	NA	NA	NA	400.15		0.4	*
2Q14		4/1/2014	NE	46.36	NA	NA	NA	399.19		0.0	*
3Q14		7/1/2014	NE	45.79	NA	NA	NA	399.76		0.0	*
4Q14		10/1/2014	NE	45.05	NA	NA	NA	400.50		0.1	*
1Q15	445.70	1/6/2015	NE	45.32	NA	NA	NA	400.38	311.99 - 309.99 (133.71 - 135.71)	0.0	*
2Q15		4/6/2015	NE	45.38	NA	NA	NA	400.32		0.1	*
P-84A											
3Q12	446.39	7/5/2012	NE	41.40	NA	NA	NA	404.99	397.89 - 382.89 (48.50 - 63.50)	0.0	*
4Q12		10/2/2012	NE	43.10	NA	NA	NA	403.29		0.0	*
1Q13		1/4/2013	NE	44.20	NA	NA	NA	402.19		0.0	*
2Q13		4/3/2013	NE	45.51	NA	NA	NA	400.88		0.0	*
3Q13		7/5/2013	NE	43.85	NA	NA	NA	402.54		0.0	*
4Q13		10/4/2013	NE	43.56	NA	NA	NA	402.83		0.2	*
1Q14		2/13/2014	NE	44.73	NA	NA	NA	401.66		0.0	*
2Q14		4/4/2014	NE	46.73	NA	NA	NA	399.66		0.3	*
3Q14		7/3/2014	NE	45.55	NA	NA	NA	400.84		0.0	*
4Q14		10/3/2014	NE	44.95	NA	NA	NA	401.44		0.0	*
1Q15	446.49	1/12/2015	NE	44.96	NA	NA	NA	401.53	397.99 - 382.99 (48.50 - 63.50)	0.0	*
2Q15		4/6/2015	NE	45.65	NA	NA	NA	400.84		0.2	*

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
P-84B											
3Q12	446.10	7/5/2012	NE	41.43	NA	NA	NA	404.67	372.60 - 370.60 (73.50 - 75.50)	0.0	*
4Q12		10/2/2012	NE	42.84	NA	NA	NA	403.26		0.1	*
1Q13		1/4/2013	NE	43.92	NA	NA	NA	402.18		0.0	*
2Q13		4/3/2013	NE	45.24	NA	NA	NA	400.86		0.0	*
3Q13		7/5/2013	NE	43.59	NA	NA	NA	402.51		0.0	*
4Q13		10/4/2013	NE	43.30	NA	NA	NA	402.80		0.0	*
1Q14		2/13/2014	NE	44.33	NA	NA	NA	401.77		0.0	*
2Q14		4/4/2014	NE	46.45	NA	NA	NA	399.65		0.0	*
3Q14		7/3/2014	NE	45.31	NA	NA	NA	400.79		0.0	*
4Q14		10/3/2014	NE	44.73	NA	NA	NA	401.37		0.0	*
1Q15	446.21	1/12/2015	NE	44.68	NA	NA	NA	401.53	372.71 - 370.71 (73.50 - 75.50)	0.0	*
2Q15		4/6/2015	NE	45.38	NA	NA	NA	400.83		0.5	*
P-84C											
3Q12	446.13	7/5/2012	NE	41.45	NA	NA	NA	404.68	352.08 - 350.08 (94.05 - 96.05)	0.0	*
4Q12		10/2/2012	NE	43.15	NA	NA	NA	402.98		0.0	*
1Q13		1/4/2013	NE	44.39	NA	NA	NA	401.74		0.0	*
2Q13		4/3/2013	NE	45.52	NA	NA	NA	400.61		0.0	*
3Q13		7/5/2013	NE	43.85	NA	NA	NA	402.28		0.0	*
4Q13		10/4/2013	NE	43.62	NA	NA	NA	402.51		0.0	*
1Q14		2/13/2014	NE	44.80	NA	NA	NA	401.33		0.0	*
2Q14		4/4/2014	NE	49.46	NA	NA	NA	396.67		0.7	*
3Q14		7/3/2014	NE	45.63	NA	NA	NA	400.50		0.0	*
4Q14		10/3/2014	NE	45.03	NA	NA	NA	401.10		1.1	*
1Q15	446.22	1/12/2015	NE	44.69	NA	NA	NA	401.53	352.17 - 350.17 (94.05 - 96.05)	0.0	*
2Q15		4/6/2015	NE	45.38	NA	NA	NA	400.84		0.2	*
P-84D											
3Q12	446.14	7/5/2012	NE	41.46	NA	NA	NA	404.68	324.99 - 322.99 (121.15 - 123.15)	0.0	*
4Q12		10/2/2012	NE	43.18	NA	NA	NA	402.96		0.4	*
1Q13		1/4/2013	NE	44.41	NA	NA	NA	401.73		0.0	*
2Q13		4/3/2013	NE	45.52	NA	NA	NA	400.62		0.0	*
3Q13		7/5/2013	NE	44.00	NA	NA	NA	402.14		0.0	*
4Q13		10/4/2013	NE	43.62	NA	NA	NA	402.52		0.0	*
1Q14		2/13/2014	NE	44.80	NA	NA	NA	401.34		0.0	*
2Q14		4/4/2014	NE	49.46	NA	NA	NA	396.68		0.0	*
3Q14		7/3/2014	NE	45.62	NA	NA	NA	400.52		0.0	*
4Q14		10/3/2014	NE	45.02	NA	NA	NA	401.12		0.0	*
1Q15	446.24	1/12/2015	NE	44.70	NA	NA	NA	401.54	325.09 - 323.09 (121.15 - 123.15)	0.0	*
2Q15		4/6/2015	NE	45.38	NA	NA	NA	400.86		0.2	*
P-88A											
3Q12	443.12	7/2/2012	NE	32.97	NA	NA	NA	410.15	404.72 - 389.72 (38.40 - 53.40)	0.0	*
4Q12		10/2/2012	NE	34.58	NA	NA	NA	408.54		0.0	*
1Q13		1/2/2013	NE	35.80	NA	NA	NA	407.32		0.0	*
2Q13		4/2/2013	NE	36.74	NA	NA	NA	406.38		0.0	*
3Q13		7/2/2013	NE	35.05	NA	NA	NA	408.07		0.0	*
4Q13		10/2/2013	NE	34.33	NA	NA	NA	408.79		0.0	*
1Q14		2/11/2014	NE	36.13	NA	NA	NA	406.99		0.2	*
2Q14		4/4/2014	NE	37.98	NA	NA	NA	405.14		0.1	*
3Q14		7/3/2014	NE	36.62	NA	NA	NA	406.50		0.0	*
4Q14		10/3/2014	NE	36.04	NA	NA	NA	407.08		0.1	*
1Q15	443.09	1/9/2015	NE	35.54	NA	NA	NA	407.55	404.69 - 389.69 (38.40 - 53.40)	0.0	*
2Q15		4/3/2015	NE	36.41	NA	NA	NA	406.68		0.0	*
P-88B											
3Q12	443.17	7/2/2012	NE	33.01	NA	NA	NA	410.16	371.17 - 369.17 (72.00 - 74.00)	0.0	*
4Q12		10/2/2012	NE	34.56	NA	NA	NA	408.61		0.0	*
1Q13		1/2/2013	NE	35.82	NA	NA	NA	407.35		0.0	*
2Q13		4/2/2013	NE	36.79	NA	NA	NA	406.38		0.0	*
3Q13		7/2/2013	NE	35.15	NA	NA	NA	408.02		0.0	*
4Q13		10/2/2013	NE	34.33	NA	NA	NA	408.84		0.0	*
1Q14		2/11/2014	NE	36.19	NA	NA	NA	406.98		0.3	*
2Q14		4/4/2014	NE	38.04	NA	NA	NA	405.13		0.5	*
3Q14		7/3/2014	NE	36.58	NA	NA	NA	406.59		0.0	*
4Q14		10/3/2014	NE	36.09	NA	NA	NA	407.08		0.1	*
1Q15	443.16	1/9/2015	NE	35.61	NA	NA	NA	407.55	371.16 - 369.16 (72.00 - 74.00)	0.0	*
2Q15		4/3/2015	NE	36.48	NA	NA	NA	406.68		0.0	*

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
P-88C											
3Q12	443.16	7/2/2012	NE	33.15	NA	NA	NA	410.01	350.86 - 348.86 (92.30 - 94.30)	0.0	*
4Q12		10/2/2012	NE	34.83	NA	NA	NA	408.33		0.0	*
1Q13		1/2/2013	NE	36.10	NA	NA	NA	407.06		0.0	*
2Q13		4/2/2013	NE	37.07	NA	NA	NA	406.09		0.5	*
3Q13		7/2/2013	NE	35.44	NA	NA	NA	407.72		0.0	*
4Q13		10/2/2013	NE	34.61	NA	NA	NA	408.55		0.0	*
1Q14		2/11/2014	NE	36.45	NA	NA	NA	406.71		0.2	*
2Q14		4/4/2014	NE	41.00	NA	NA	NA	402.16		0.2	*
3Q14		7/3/2014	NE	36.87	NA	NA	NA	406.29		0.0	*
4Q14		10/3/2014	NE	35.74	NA	NA	NA	407.42		0.3	*
1Q15	443.13	1/9/2015	NE	35.59	NA	NA	NA	407.54	350.83 - 348.83 (92.30 - 94.30)	0.0	*
2Q15		4/3/2015	NE	36.42	NA	NA	NA	406.71		3.2	*
P-88D											
3Q12	443.23	7/2/2012	NE	33.41	NA	NA	NA	409.82	329.53 - 327.53 (113.70 - 115.70)	0.0	*
4Q12		10/2/2012	NE	34.99	NA	NA	NA	408.24		0.0	*
1Q13		1/2/2013	NE	36.23	NA	NA	NA	407.00		0.0	*
2Q13		4/2/2013	NE	37.21	NA	NA	NA	406.02		1.6	*
3Q13		7/2/2013	NE	35.51	NA	NA	NA	407.72		0.0	*
4Q13		10/2/2013	NE	34.72	NA	NA	NA	408.51		0.0	*
1Q14		2/11/2014	NE	36.59	NA	NA	NA	406.64		1.7	*
2Q14		4/4/2014	NE	41.45	NA	NA	NA	401.78		0.1	*
3Q14		7/3/2014	NE	36.95	NA	NA	NA	406.28		0.6	*
4Q14		10/3/2014	NE	36.43	NA	NA	NA	406.80		0.0	*
1Q15	443.20	1/9/2015	NE	35.78	NA	NA	NA	407.42	329.50 - 327.50 (113.70 - 115.70)	0.0	*
2Q15		4/3/2015	NE	36.57	NA	NA	NA	406.63		0.0	*
P-89B											
3Q12	447.35	7/2/2012	NE	40.09	NA	NA	NA	407.26	369.99 - 367.99 (77.36 - 79.36)	0.0	*
4Q12		10/1/2012	NE	41.62	NA	NA	NA	405.73		0.0	*
1Q13		1/3/2013	NE	43.23	NA	NA	NA	404.12		0.0	*
2Q13		4/1/2013	NE	43.96	NA	NA	NA	403.39		0.0	*
3Q13		7/3/2013	NE	42.83	NA	NA	NA	404.52		0.0	*
4Q13		10/1/2013	NE	42.67	NA	NA	NA	404.68		25.2	*
1Q14		2/12/2014	NE	44.24	NA	NA	NA	403.11		0.2	*
2Q14		4/1/2014	NE	45.09	NA	NA	NA	402.26		0.0	*
3Q14		7/1/2014	NE	44.59	NA	NA	NA	402.76		0.0	*
4Q14		10/2/2014	NE	44.19	NA	NA	NA	403.16		0.0	*
1Q15	447.44	1/9/2015	NE	43.31	NA	NA	NA	404.13	370.08 - 368.08 (77.36 - 79.36)	0.0	*
2Q15		4/3/2015	NE	44.10	NA	NA	NA	403.34		0.0	*
P-89C											
3Q12	447.68	7/2/2012	NE	40.42	NA	NA	NA	407.26	350.05 - 348.05 (97.63 - 99.63)	0.0	*
4Q12		10/1/2012	NE	41.94	NA	NA	NA	405.74		0.0	*
1Q13		1/3/2013	NE	43.58	NA	NA	NA	404.10		0.0	*
2Q13		4/2/2013	NE	44.28	NA	NA	NA	403.40		1.7	*
3Q13		7/3/2013	NE	43.20	NA	NA	NA	404.48		2.3	*
4Q13		10/1/2013	NE	43.02	NA	NA	NA	404.66		0.1	*
1Q14		2/12/2014	NE	44.58	NA	NA	NA	403.10		186.4	*
2Q14		4/1/2014	NE	45.47	NA	NA	NA	402.21		0.0	*
3Q14		7/1/2014	NE	44.94	NA	NA	NA	402.74		0.0	*
4Q14		10/2/2014	NE	44.53	NA	NA	NA	403.15		0.0	*
1Q15	447.76	1/9/2015	NE	43.68	NA	NA	NA	404.08	350.13 - 348.13 (97.63 - 99.63)	0.7	*
2Q15		4/3/2015	NE	44.45	NA	NA	NA	403.31		0.0	*
P-89D											
3Q12	447.54	7/2/2012	NE	40.36	NA	NA	NA	407.18	307.20 - 305.20 (140.34 - 142.34)	0.0	*
4Q12		10/1/2012	NE	41.94	NA	NA	NA	405.60		0.0	*
1Q13		1/3/2013	NE	43.52	NA	NA	NA	404.02		0.0	*
2Q13		4/1/2013	NE	44.20	NA	NA	NA	403.34		0.0	*
3Q13		7/3/2013	NE	43.20	NA	NA	NA	404.34		0.0	*
4Q13		10/1/2013	NE	43.01	NA	NA	NA	404.53		0.2	*
1Q14		2/12/2014	NE	44.68	NA	NA	NA	402.86		7.4	*
2Q14		4/1/2014	NE	45.45	NA	NA	NA	402.09		0.0	*
3Q14		7/1/2014	NE	44.92	NA	NA	NA	402.62		0.0	*
4Q14		10/2/2014	NE	44.55	NA	NA	NA	402.99		0.0	*
1Q15	447.63	1/9/2015	NE	43.67	NA	NA	NA	403.96	307.29 - 305.29 (140.34 - 142.34)	0.0	*
2Q15		4/3/2015	NE	44.32	NA	NA	NA	403.31		0.0	*

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
P-91A											
3Q12	447.19	7/2/2012	NE	45.76	NA	NA	NA	401.43	395.68 - 380.68 (51.51 - 66.51)	0.0	*
4Q12		10/1/2012	NE	46.72	NA	NA	NA	400.47		0.5	*
1Q13		1/4/2013	NE	48.92	NA	NA	NA	398.27		0.0	*
2Q13		4/1/2013	NE	49.58	NA	NA	NA	397.61		0.4	*
3Q13		7/3/2013	NE	48.64	NA	NA	NA	398.55		182.3	*
4Q13		10/2/2013	NE	47.88	NA	NA	NA	399.31		14.8	*
1Q14		2/12/2014	48.21	54.71	392.48	398.98	6.50	397.68		178.7	*
2Q14		4/4/2014	50.20	55.10	392.09	396.99	4.90	396.01		15.9	*
3Q14		7/2/2014	48.74	52.68	394.51	398.45	3.94	397.66		295.2	*
4Q14		10/2/2014	48.10	51.99	395.20	399.09	3.89	398.31		22.9	*
1Q15	447.24	1/9/2015	47.98	51.84	395.40	399.26	3.86	398.49	395.72 - 380.72 (51.51 - 66.51)	15.0	*
2Q15		4/3/2015	50.02	50.12	397.12	397.22	0.10	397.20		45.5	*
P-91B											
3Q12	447.26	7/2/2012	NE	45.74	NA	NA	NA	401.52	372.57 - 370.57 (74.69 - 76.69)	0.0	*
4Q12		10/1/2012	NE	46.79	NA	NA	NA	400.47		0.6	*
1Q13		1/4/2013	NE	49.10	NA	NA	NA	398.16		0.0	*
2Q13		4/1/2013	NE	49.70	NA	NA	NA	397.56		0.0	*
3Q13		7/3/2013	NE	48.72	NA	NA	NA	398.54		2.5	*
4Q13		10/2/2013	NE	48.04	NA	NA	NA	399.22		0.0	*
1Q14		2/12/2014	NE	49.61	NA	NA	NA	397.65		9.5	*
2Q14		4/4/2014	NE	51.19	NA	NA	NA	396.07		0.4	*
3Q14		7/2/2014	NE	49.64	NA	NA	NA	397.62		17.5	*
4Q14		10/2/2014	NE	48.96	NA	NA	NA	398.30		29.1	*
1Q15	447.28	1/9/2015	NE	48.86	NA	NA	NA	398.42	372.59 - 370.59 (74.69 - 76.69)	1.9	*
2Q15		4/3/2015	NE	50.08	NA	NA	NA	397.20		2.1	*
P-91C											
3Q12	447.02	7/2/2012	NE	45.53	NA	NA	NA	401.49	352.29 - 350.29 (94.73 - 96.73)	0.0	*
4Q12		10/1/2012	NE	46.54	NA	NA	NA	400.48		0.0	*
1Q13		1/4/2013	NE	48.84	NA	NA	NA	398.18		0.0	*
2Q13		4/2/2013	NE	49.40	NA	NA	NA	397.62		0.2	*
3Q13		7/3/2013	NE	48.46	NA	NA	NA	398.56		0.0	*
4Q13		10/2/2013	NE	47.77	NA	NA	NA	399.25		0.6	*
1Q14		2/12/2014	NE	49.36	NA	NA	NA	397.66		2.7	*
2Q14		4/4/2014	NE	51.00	NA	NA	NA	396.02		0.2	*
3Q14		7/2/2014	NE	49.39	NA	NA	NA	397.63		0.3	*
4Q14		10/2/2014	NE	48.71	NA	NA	NA	398.31		0.1	*
1Q15	447.07	1/9/2015	NE	48.61	NA	NA	NA	398.46	352.34 - 350.34 (94.73 - 96.73)	0.1	*
2Q15		4/3/2015	NE	49.88	NA	NA	NA	397.19		0.0	*
P-91D											
3Q12	447.02	7/2/2012	NE	45.55	NA	NA	NA	401.47	278.70 - 276.70 (168.32 - 170.32)	0.0	*
4Q12		10/1/2012	NE	46.53	NA	NA	NA	400.49		0.0	*
1Q13		1/4/2013	NE	48.82	NA	NA	NA	398.20		0.0	*
2Q13		4/1/2013	NE	49.42	NA	NA	NA	397.60		0.0	*
3Q13		7/3/2013	NE	48.46	NA	NA	NA	398.56		6.6	*
4Q13		10/2/2013	NE	47.76	NA	NA	NA	399.26		1.9	*
1Q14		2/12/2014	NE	49.35	NA	NA	NA	397.67		6.2	*
2Q14		4/4/2014	NE	51.02	NA	NA	NA	396.00		6.9	*
3Q14		7/2/2014	NE	49.37	NA	NA	NA	397.65		0.4	*
4Q14		10/2/2014	NE	48.71	NA	NA	NA	398.31		0.0	*
1Q15	447.06	1/9/2015	NE	48.60	NA	NA	NA	398.46	278.74 - 276.74 (168.32 - 170.32)	0.1	*
2Q15		4/3/2015	NE	49.87	NA	NA	NA	397.19		1.0	*
P-92A											
3Q12	446.12	7/3/2012	44.06	44.08	402.04	402.06	0.02	402.06	398.55 - 383.55 (47.57 - 62.57)	0.0	*
4Q12		10/1/2012	NE	45.04	NA	NA	NA	401.08		3.5	*
1Q13		1/4/2013	46.83	46.84	399.28	399.29	0.01	399.29		0.0	*
2Q13		4/1/2013	47.59	47.71	398.41	398.53	0.12	398.51		105.0	
3Q13		7/5/2013	46.31	46.40	399.72	399.81	0.09	399.79		17.0	*
4Q13		10/2/2013	45.36	45.42	400.70	400.76	0.06	400.75		55.1	*
1Q14		2/12/2014	47.20	47.28	398.84	398.92	0.08	398.90		153.9	*
2Q14		4/4/2014	49.06	49.16	396.96	397.06	0.10	397.04		0.9	
3Q14		7/2/2014	47.55	47.57	398.55	398.57	0.02	398.57		17.5	*
4Q14		10/2/2014	46.73	46.76	399.36	399.39	0.03	399.38		130.2	*
1Q15	446.24	1/9/2015	46.31	46.35	399.89	399.93	0.04	399.92	398.67 - 383.67 (47.57 - 62.57)	34.9	*
2Q15		4/1/2015	48.06	48.08	398.16	398.18	0.02	398.18		12.8	

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
P-92B											
3Q12	446.07	7/3/2012	NE	44.02	NA	NA	NA	402.05	372.42 - 370.42 (73.65 - 75.65)	0.0	*
4Q12		10/1/2012	NE	44.97	NA	NA	NA	401.10		3.4	*
1Q13		1/4/2013	NE	46.80	NA	NA	NA	399.27		0.0	*
2Q13		4/1/2013	NE	47.57	NA	NA	NA	398.50		1.9	*
3Q13		7/5/2013	NE	46.29	NA	NA	NA	399.78		0.0	*
4Q13		10/2/2013	NE	45.31	NA	NA	NA	400.76		0.3	*
1Q14		2/12/2014	NE	47.12	NA	NA	NA	398.95		1.7	*
2Q14		4/4/2014	NE	49.03	NA	NA	NA	397.04		0.2	*
3Q14		7/2/2014	NE	47.52	NA	NA	NA	398.55		0.0	*
4Q14		10/2/2014	NE	46.70	NA	NA	NA	399.37		0.6	*
1Q15	446.18	1/9/2015	NE	46.28	NA	NA	NA	399.90	372.53 - 370.53 (73.65 - 75.65)	0.0	*
2Q15		4/1/2015	NE	48.03	NA	NA	NA	398.15		0.0	*
P-92C											
3Q12	445.98	7/3/2012	NE	44.07	NA	NA	NA	401.91	352.54 - 350.54 (93.44 - 95.44)	0.0	*
4Q12		10/1/2012	NE	45.04	NA	NA	NA	400.94		0.0	*
1Q13		1/4/2013	NE	46.83	NA	NA	NA	399.15		0.0	*
2Q13		4/1/2013	NE	47.47	NA	NA	NA	398.51		0.0	*
3Q13		7/5/2013	NE	46.31	NA	NA	NA	399.67		0.4	*
4Q13		10/2/2013	NE	45.33	NA	NA	NA	400.65		0.8	*
1Q14		2/12/2014	NE	47.29	NA	NA	NA	398.69		0.2	*
2Q14		4/4/2014	NE	48.80	NA	NA	NA	397.18		0.4	*
3Q14		7/2/2014	NM	NM	NA	NA	NA	NA		NM	Well damaged
4Q14		10/2/2014	NM	NM	NA	NA	NA	NA		NM	Well damaged
1Q15	446.17	1/9/2015	NE	46.25	NA	NA	NA	399.92	353.21 - 348.21 (92.96 - 97.96)	4.4	* Replaced during 4Q14
2Q15		4/1/2015	NE	48.02	NA	NA	NA	398.15		2.9	*
P-92D											
3Q12	445.90	7/3/2012	NE	43.96	NA	NA	NA	401.94	304.90 - 302.90 (141.00 - 143.00)	0.0	*
4Q12		10/1/2012	NE	44.82	NA	NA	NA	401.08		0.0	*
1Q13		1/4/2013	NE	46.72	NA	NA	NA	399.18		0.0	*
2Q13		4/1/2013	NE	47.47	NA	NA	NA	398.43		0.0	*
3Q13		7/5/2013	NE	46.22	NA	NA	NA	399.68		0.0	*
4Q13		10/2/2013	NE	45.21	NA	NA	NA	400.69		0.1	*
1Q14		2/12/2014	NE	47.07	NA	NA	NA	398.83		0.4	*
2Q14		4/4/2014	NE	48.94	NA	NA	NA	396.96		0.3	*
3Q14		7/2/2014	NE	47.42	NA	NA	NA	398.48		0.0	*
4Q14		10/2/2014	NE	46.62	NA	NA	NA	399.28		0.2	*
1Q15	446.00	1/9/2015	NE	46.10	NA	NA	NA	399.90	305.00 - 303.00 (141.00 - 143.00)	0.4	*
2Q15		4/1/2015	NE	47.91	NA	NA	NA	398.09		0.0	*
P-93A											
3Q12	446.58	7/5/2012	NE	42.95	NA	NA	NA	403.62	398.41 - 383.41 (48.17 - 63.17)	0.0	*
4Q12		10/2/2012	NE	44.72	NA	NA	NA	401.86		0.0	*
1Q13		1/8/2013	NE	45.73	NA	NA	NA	400.84		0.0	*
2Q13		4/2/2013	NE	46.58	NA	NA	NA	400.00		0.0	*
3Q13		7/5/2013	NE	43.68	NA	NA	NA	402.90		0.0	*
4Q13		10/2/2013	NE	44.00	NA	NA	NA	402.58		0.1	*
1Q14		2/12/2014	NE	46.53	NA	NA	NA	400.04		3.6	*
2Q14		4/4/2014	NE	47.28	NA	NA	NA	399.29		1.3	*
3Q14		7/1/2014	NE	46.10	NA	NA	NA	400.48		0.0	*
4Q14		10/3/2014	NE	45.09	NA	NA	NA	401.48		2.2	*
1Q15	445.12	1/8/2015	NE	46.84	NA	NA	NA	398.28	402.05 - 392.05 (43.07 - 53.07)	0.0	Replaced during 4Q14
2Q15		4/1/2015	NE	47.05	NA	NA	NA	398.07		0.0	
P-93B											
3Q12	446.46	7/5/2012	NE	42.86	NA	NA	NA	403.60	371.86 - 369.86 (74.60 - 76.60)	0.0	*
4Q12		10/2/2012	NE	44.80	NA	NA	NA	401.66		0.0	*
1Q13		1/8/2013	NE	45.77	NA	NA	NA	400.69		0.0	*
2Q13		4/2/2013	NE	46.70	NA	NA	NA	399.76		0.0	*
3Q13		7/5/2013	NE	43.71	NA	NA	NA	402.75		0.0	*
4Q13		10/2/2013	NE	44.09	NA	NA	NA	402.37		18.4	*
1Q14		2/12/2014	NE	46.58	NA	NA	NA	399.88		70.0	*
2Q14		4/4/2014	NE	47.33	NA	NA	NA	399.13		0.5	*
3Q14		7/1/2014	NE	46.15	NA	NA	NA	400.31		0.0	*
4Q14		10/3/2014	NE	45.13	NA	NA	NA	401.33		1.0	*
1Q15	446.52	1/9/2015	NE	47.10	NA	NA	NA	399.42	371.92 - 369.92 (74.60 - 76.60)	0.1	*
2Q15		4/1/2015	NE	48.44	NA	NA	NA	398.08		51.9	*

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
P-93C											
3Q12	446.51	7/5/2012	NE	42.98	NA	NA	NA	403.53	352.26 - 350.26 (94.26 - 96.26)	0.3	*
4Q12		10/2/2012	NE	44.68	NA	NA	NA	401.83		0.2	*
1Q13		1/8/2013	NE	45.66	NA	NA	NA	400.85		0.0	*
2Q13		4/2/2013	NE	46.51	NA	NA	NA	400.00		0.0	*
3Q13		7/5/2013	NE	43.59	NA	NA	NA	402.92		0.0	*
4Q13		10/2/2013	NE	43.94	NA	NA	NA	402.57		0.3	*
1Q14		2/12/2014	NE	46.44	NA	NA	NA	400.07		1.3	*
2Q14		4/4/2014	NE	47.20	NA	NA	NA	399.31		0.0	*
3Q14		7/1/2014	NE	46.03	NA	NA	NA	400.48		0.0	*
4Q14		10/3/2014	NE	45.01	NA	NA	NA	401.50		0.4	*
1Q15	446.28	1/8/2015	NE	46.36	NA	NA	NA	399.92	353.81 - 348.81 (92.47 - 97.47)	2.3	* Replaced during 4Q14
2Q15		4/1/2015	NE	48.24	NA	NA	NA	398.04		12.8	*
P-93D											
3Q12	446.89	7/5/2012	NE	43.02	NA	NA	NA	403.87	321.14 - 319.14 (125.75 - 127.75)	0.0	*
4Q12		10/2/2012	NE	44.43	NA	NA	NA	402.46		0.6	*
1Q13		1/8/2013	NE	45.84	NA	NA	NA	401.05		0.0	*
2Q13		4/2/2013	NE	46.67	NA	NA	NA	400.22		0.0	*
3Q13		7/5/2013	NE	43.75	NA	NA	NA	403.14		0.0	*
4Q13		10/2/2013	NE	44.06	NA	NA	NA	402.83		0.2	*
1Q14		2/12/2014	NE	46.62	NA	NA	NA	400.27		4.1	*
2Q14		4/4/2014	NE	47.36	NA	NA	NA	399.53		3.1	*
3Q14		7/1/2014	NE	46.17	NA	NA	NA	400.72		0.0	*
4Q14		10/3/2014	NE	45.16	NA	NA	NA	401.73		14.4	*
1Q15	446.73	1/8/2015	NE	46.82	NA	NA	NA	399.91	320.98 - 318.98 (125.75 - 127.75)	10.8	*
2Q15		4/1/2015	NE	48.64	NA	NA	NA	398.09		13.7	*
P-94											
3Q12	444.65	7/2/2012	NE	36.20	NA	NA	NA	408.45	398.80 - 383.80 (45.85 - 60.85)	0.0	*
4Q12		10/1/2012	NE	38.02	NA	NA	NA	406.63		0.0	*
1Q13		1/3/2013	NE	39.75	NA	NA	NA	404.90		0.0	*
2Q13		4/2/2013	NE	40.64	NA	NA	NA	404.01		0.0	*
3Q13		7/3/2013	NE	38.49	NA	NA	NA	406.16		0.0	*
4Q13		10/1/2013	NE	39.17	NA	NA	NA	405.48		2.6	*
1Q14		2/11/2014	NE	40.93	NA	NA	NA	403.72		0.4	*
2Q14		4/1/2014	NE	41.85	NA	NA	NA	402.80		0.0	*
3Q14		7/1/2014	NE	41.46	NA	NA	NA	403.19		0.0	*
4Q14		10/1/2014	NE	41.10	NA	NA	NA	403.55		0.0	*
1Q15	445.14	1/6/2015	NE	41.09	NA	NA	NA	404.05	399.29 - 384.29 (45.85 - 60.85)	0.0	*
2Q15		4/6/2015	NE	41.00	NA	NA	NA	404.14		0.1	*
P-95											
3Q12	443.44	7/3/2012	NE	31.04	NA	NA	NA	412.40	406.92 - 391.92 (36.52 - 51.52)	0.0	*
4Q12		10/2/2012	NE	32.52	NA	NA	NA	410.92		0.0	*
1Q13		1/2/2013	NE	33.87	NA	NA	NA	409.57		0.0	*
2Q13		4/2/2013	NE	34.91	NA	NA	NA	408.53		0.2	*
3Q13		7/2/2013	NE	33.31	NA	NA	NA	410.13		0.0	*
4Q13		10/2/2013	NE	32.59	NA	NA	NA	410.85		0.0	*
1Q14		2/10/2014	NE	34.28	NA	NA	NA	409.16		1.2	*
2Q14		4/4/2014	NE	36.19	NA	NA	NA	407.25		0.0	*
3Q14		7/3/2014	NE	34.73	NA	NA	NA	408.71		0.0	*
4Q14		10/3/2014	NE	34.39	NA	NA	NA	409.05		0.0	*
1Q15	443.42	1/12/2015	NE	34.16	NA	NA	NA	409.26	406.90 - 391.90 (36.52 - 51.52)	0.2	*
2Q15		4/3/2015	NE	34.52	NA	NA	NA	408.90		0.0	*
P-102											
3Q12	444.91	7/2/2012	NE	34.10	NA	NA	NA	410.81	402.16 - 382.16 (42.75 - 62.75)	0.0	*
4Q12		10/2/2012	NE	35.69	NA	NA	NA	409.22		0.0	*
1Q13		1/2/2013	NE	36.98	NA	NA	NA	407.93		0.0	*
2Q13		4/2/2013	NE	37.95	NA	NA	NA	406.96		0.2	*
3Q13		7/2/2013	NE	36.53	NA	NA	NA	408.38		0.0	*
4Q13		10/2/2013	NE	36.24	NA	NA	NA	408.67		20.0	*
1Q14		2/11/2014	NE	37.81	NA	NA	NA	407.10		2.9	*
2Q14		4/4/2014	NE	38.55	NA	NA	NA	406.36		7.5	*
3Q14		7/3/2014	NE	38.25	NA	NA	NA	406.66		0.0	*
4Q14		10/3/2014	NE	37.87	NA	NA	NA	407.04		6.8	*
1Q15	444.97	1/9/2015	NE	37.20	NA	NA	NA	407.77	402.22 - 382.22 (42.75 - 62.75)	0.0	*
2Q15		4/3/2015	NE	37.85	NA	NA	NA	407.12		0.1	*

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
P-114											
3Q12	432.40	7/3/2012	NE	28.39	NA	NA	NA	404.02	399.73 - 379.73 (32.67 - 52.67)	0.0	*
4Q12		10/2/2012	NE	30.51	NA	NA	NA	401.90		0.0	*
1Q13		1/7/2013	NE	30.22	NA	NA	NA	402.18		0.0	*
2Q13		4/2/2013	NE	31.99	NA	NA	NA	400.42		0.9	*
3Q13		7/2/2013	NE	27.65	NA	NA	NA	404.76		0.3	*
4Q13		10/2/2013	NE	29.03	NA	NA	NA	403.38		0.0	*
1Q14		2/11/2014	NE	32.11	NA	NA	NA	400.29		0.5	*
2Q14		4/4/2014	NM	NM	NA	NA	NA	NA		NM	
3Q14		7/2/2014	NE	30.87	NA	NA	NA	401.54		3.5	*
4Q14		10/3/2014	NE	29.83	NA	NA	NA	402.58		0.4	*
1Q15	432.45	1/12/2015	NM	NM	NA	NA	NA	NA	399.78 - 379.78 (32.67 - 52.67)	NM	
2Q15		4/3/2015	NM	NM	NA	NA	NA	NA		NM	
P-115											
3Q12	433.31	7/3/2012	NE	29.35	NA	NA	NA	403.96	401.01 - 381.01 (32.30 - 52.30)	0.0	*
4Q12		10/2/2012	NE	31.51	NA	NA	NA	401.80		0.0	*
1Q13		1/7/2013	NE	32.60	NA	NA	NA	400.71		0.0	
2Q13		4/2/2013	NE	32.92	NA	NA	NA	400.39		0.5	
3Q13		7/2/2013	NE	28.30	NA	NA	NA	405.01		0.5	*
4Q13		10/2/2013	NE	29.99	NA	NA	NA	403.32		0.0	*
1Q14		2/11/2014	NE	33.07	NA	NA	NA	400.24		0.6	
2Q14		4/7/2014	NE	33.10	NA	NA	NA	400.21		57.2	
3Q14		7/2/2014	NE	31.61	NA	NA	NA	401.70		0.9	*
4Q14		10/3/2014	NE	30.52	NA	NA	NA	402.79		0.2	*
1Q15	433.36	1/12/2015	NE	32.17	NA	NA	NA	401.19	401.06 - 381.06 (32.30 - 52.30)	0.0	*
2Q15		4/3/2015	NE	33.81	NA	NA	NA	399.55		0.3	
P-116											
3Q12	436.45	7/3/2012	NE	32.80	NA	NA	NA	403.65	399.01 - 379.01 (37.44 - 57.44)	0.0	*
4Q12		10/2/2012	NE	34.97	NA	NA	NA	401.48		0.0	*
1Q13		1/7/2013	NE	36.10	NA	NA	NA	400.35		0.0	*
2Q13		4/2/2013	NE	36.32	NA	NA	NA	400.13		3.9	*
3Q13		7/2/2013	NE	31.49	NA	NA	NA	404.96		0.0	*
4Q13		10/2/2013	NE	33.43	NA	NA	NA	403.02		18.3	*
1Q14		2/11/2014	NE	36.50	NA	NA	NA	399.95		0.9	*
2Q14		4/4/2014	NE	36.91	NA	NA	NA	399.54		0.1	*
3Q14		7/2/2014	NE	34.94	NA	NA	NA	401.51		0.8	*
4Q14		10/3/2014	NE	33.85	NA	NA	NA	402.60		0.2	*
1Q15	436.63	1/12/2015	NE	35.54	NA	NA	NA	401.09	399.19 - 379.19 (37.44 - 57.44)	0.0	*
2Q15		4/3/2015	NE	37.15	NA	NA	NA	399.48		2.3	*
P-117											
3Q12	432.67	7/3/2012	NE	29.00	NA	NA	NA	403.67	399.74 - 379.74 (32.93 - 52.93)	0.0	*
4Q12		10/2/2012	NE	31.19	NA	NA	NA	401.48		0.0	*
1Q13		1/7/2013	NE	32.45	NA	NA	NA	400.22		0.0	*
2Q13		4/2/2013	NE	32.51	NA	NA	NA	400.16		75.8	*
3Q13		7/2/2013	NE	27.61	NA	NA	NA	405.06		0.0	*
4Q13		10/2/2013	NE	29.63	NA	NA	NA	403.04		0.0	*
1Q14		2/11/2014	NE	32.77	NA	NA	NA	399.90		0.6	*
2Q14		4/4/2014	NE	33.14	NA	NA	NA	399.53		0.0	
3Q14		7/2/2014	NE	31.10	NA	NA	NA	401.57		1.0	*
4Q14		10/3/2014	NE	30.03	NA	NA	NA	402.64		0.0	*
1Q15	432.71	1/12/2015	NE	35.54	NA	NA	NA	397.17	399.78 - 379.78 (32.93 - 52.93)	0.0	
2Q15		4/3/2015	NE	33.39	NA	NA	NA	399.32		2.8	
P-118											
3Q12	431.32	7/3/2012	NE	28.12	NA	NA	NA	403.20	400.20 - 384.27 (31.12 - 47.05)	0.0	*
4Q12		10/2/2012	NE	30.40	NA	NA	NA	400.92		0.0	*
1Q13		1/7/2013	NE	31.60	NA	NA	NA	399.72		0.0	
2Q13		4/2/2013	NE	31.53	NA	NA	NA	399.79		0.2	
3Q13		7/2/2013	NE	26.10	NA	NA	NA	405.22		0.0	*
4Q13		10/2/2013	NE	28.82	NA	NA	NA	402.50		0.0	*
1Q14		2/11/2014	NE	31.91	NA	NA	NA	399.41		5.3	
2Q14		4/4/2014	NE	32.11	NA	NA	NA	399.21		0.0	
3Q14		7/2/2014	NE	29.78	NA	NA	NA	401.54		0.8	*
4Q14		10/3/2014	NE	28.71	NA	NA	NA	402.61		0.5	*
1Q15	431.31	1/12/2015	NE	30.73	NA	NA	NA	400.58	400.19 - 384.26 (31.12 - 47.05)	0.0	*
2Q15		4/3/2015	NE	32.22	NA	NA	NA	399.09		0.0	

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
P-119											
3Q12	431.92	7/3/2012	NE	27.40	NA	NA	NA	404.52	401.25 - 385.32 (30.67 - 46.60)	0.0	*
4Q12		10/2/2012	NE	29.45	NA	NA	NA	402.47		0.0	*
1Q13		1/7/2013	NE	30.46	NA	NA	NA	401.46		0.0	*
2Q13		4/2/2013	NE	31.10	NA	NA	NA	400.82		0.4	
3Q13		7/2/2013	NE	27.48	NA	NA	NA	404.44		0.0	*
4Q13		10/2/2013	NE	28.09	NA	NA	NA	403.83		0.0	*
1Q14		2/11/2014	NE	31.03	NA	NA	NA	400.89		1.0	
2Q14		4/4/2014	NE	31.55	NA	NA	NA	400.37		0.0	
3Q14		7/2/2014	NE	30.06	NA	NA	NA	401.86		1.1	*
4Q14		10/3/2014	NE	29.14	NA	NA	NA	402.78		0.0	*
1Q15	431.90	1/12/2015	NE	30.61	NA	NA	NA	401.29	401.23 - 385.30 (30.67 - 46.60)	0.0	*
2Q15		4/3/2015	NE	32.15	NA	NA	NA	399.75		0.0	
P-120											
3Q12	432.78	7/3/2012	NE	27.84	NA	NA	NA	404.94	401.40 - 385.47 (31.38 - 47.31)	0.0	*
4Q12		10/2/2012	NE	29.90	NA	NA	NA	402.88		0.0	*
1Q13		1/7/2013	NE	31.00	NA	NA	NA	401.78		0.0	*
2Q13		4/2/2013	NE	31.42	NA	NA	NA	401.36		0.0	
3Q13		7/2/2013	NE	27.26	NA	NA	NA	405.52		0.0	*
4Q13		10/2/2013	NE	28.43	NA	NA	NA	404.35		0.0	*
1Q14		2/11/2014	NE	31.38	NA	NA	NA	401.40		1.0	
2Q14		4/4/2014	NE	32.01	NA	NA	NA	400.77		0.0	
3Q14		7/2/2014	NE	30.11	NA	NA	NA	402.67		1.0	*
4Q14		10/3/2014	NE	29.22	NA	NA	NA	403.56		0.9	*
1Q15	432.82	1/12/2015	NE	30.70	NA	NA	NA	402.12	401.44 - 385.51 (31.38 - 47.31)	0.0	*
2Q15		4/3/2015	NE	32.26	NA	NA	NA	400.56		0.0	
P-129											
3Q12	432.46	7/3/2012	NE	30.33	NA	NA	NA	402.13	400.49 - 384.56 (31.97 - 47.90)	0.0	*
4Q12		10/2/2012	NE	32.84	NA	NA	NA	399.62		0.0	
1Q13		1/7/2013	NE	34.12	NA	NA	NA	398.34		0.0	
2Q13		4/2/2013	NE	33.30	NA	NA	NA	399.16		3.5	
3Q13		7/2/2013	NE	26.81	NA	NA	NA	405.65		0.0	*
4Q13		10/2/2013	NE	31.35	NA	NA	NA	401.11		0.0	*
1Q14		2/11/2014	NE	34.37	NA	NA	NA	398.09		1.6	
2Q14		4/4/2014	NE	34.27	NA	NA	NA	398.19		0.0	
3Q14		7/2/2014	NE	30.93	NA	NA	NA	401.53		0.7	*
4Q14		10/3/2014	NE	30.31	NA	NA	NA	402.15		0.0	*
1Q15	432.43	1/12/2015	NE	33.06	NA	NA	NA	399.37	400.46 - 384.53 (31.97 - 47.90)	0.0	
2Q15		4/3/2015	NE	34.38	NA	NA	NA	398.05		0.0	
GP-9-PZ											
3Q12	442.41	7/5/2012	NE	39.62	NA	NA	NA	402.79	404.81 - 394.81 (37.60 - 47.60)	0.0	
4Q12		10/2/2012	NE	41.32	NA	NA	NA	401.09		0.0	
1Q13		1/4/2013	NE	42.21	NA	NA	NA	400.20		0.0	
2Q13		4/2/2013	NE	42.90	NA	NA	NA	399.51		0.0	
3Q13		7/5/2013	NE	40.22	NA	NA	NA	402.19		0.0	
4Q13		10/2/2013	NE	40.98	NA	NA	NA	401.43		1.1	
1Q14		2/13/2014	NM	NM	NA	NA	NA	NA		NM	
2Q14		4/4/2014	NE	44.86	NA	NA	NA	397.55		0.5	
3Q14		7/2/2014	NE	42.66	NA	NA	NA	399.75		0.0	
4Q14		10/3/2014	NE	41.85	NA	NA	NA	400.56		0.0	
1Q15	442.56	1/8/2015	NE	42.76	NA	NA	NA	399.80	404.96 - 394.96 (37.60 - 47.60)	217.3	
2Q15		4/1/2015	NE	44.24	NA	NA	NA	398.32		0.0	
ROST-3-MW (ROST-3-PZ)											
3Q12	442.29	7/2/2012	NE	38.84	NA	NA	NA	403.45	402.29 - 392.29 (40.00 - 50.00)	0.0	*
4Q12		10/1/2012	NE	40.55	NA	NA	NA	401.74		0.0	
1Q13	442.29	1/2/2013	NE	41.50	NA	NA	NA	400.79	404.48 - 394.48 (37.81 - 47.81)	0.0	2" Well Installed to replace ROST-3-PZ
2Q13		4/1/2013	NE	42.26	NA	NA	NA	400.03		5.6	
3Q13		7/1/2013	NE	39.83	NA	NA	NA	402.46		147.0	
4Q13		10/1/2013	NE	39.98	NA	NA	NA	402.31		267.2	
1Q14		2/10/2014	NE	42.20	NA	NA	NA	400.09		2.6	
2Q14		4/1/2014	NE	42.68	NA	NA	NA	399.61		1.2	
3Q14		7/1/2014	NE	42.10	NA	NA	NA	400.19		0.1	
4Q14		10/1/2014	NE	41.16	NA	NA	NA	401.13		0.0	
1Q15		1/5/2015	NE	41.82	NA	NA	NA	400.47		167.7	
2Q15		4/2/2015	NE	43.23	NA	NA	NA	399.06		0.0	

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
ROST-4-PZ											
3Q12	442.13	7/2/2012	NE	38.24	NA	NA	NA	403.89	407.20 - 397.20 (34.93 - 44.93)	0.0	
4Q12		10/1/2012	NE	39.52	NA	NA	NA	402.61		0.0	
1Q13		1/2/2013	NE	40.52	NA	NA	NA	401.61		0.0	
2Q13		4/1/2013	41.38	41.46	400.67	400.75	0.08	400.73		0.3	
3Q13		7/1/2013	NE	39.60	NA	NA	NA	402.53		0.0	
4Q13		10/1/2013	NE	38.88	NA	NA	NA	403.25		38.9	
1Q14		2/10/2014	NE	40.97	NA	NA	NA	401.16		1.2	
2Q14		4/1/2014	NE	41.22	NA	NA	NA	400.91		0.3	
3Q14		7/1/2014	NE	41.42	NA	NA	NA	400.71		0.0	
4Q14		10/1/2014	NE	40.25	NA	NA	NA	401.88		4.4	
1Q15		1/5/2015	NE	40.80	NA	NA	NA	401.33		10.3	
2Q15		4/2/2015	NE	41.75	NA	NA	NA	400.38		0.0	
ROST-4-PZ(A)											
3Q12	442.11	7/2/2012	NE	38.64	NA	NA	NA	403.47	407.34 - 397.34 (34.77 - 44.77)	0.0	
4Q12		10/1/2012	NE	38.95	NA	NA	NA	403.16		0.0	
1Q13		1/2/2013	NE	40.60	NA	NA	NA	401.51		0.0	
2Q13		4/1/2013	NE	41.86	NA	NA	NA	400.25		0.7	
3Q13		7/1/2013	NE	39.66	NA	NA	NA	402.45		0.2	
4Q13		10/1/2013	NE	38.76	NA	NA	NA	403.35		0.0	
1Q14		2/10/2014	NE	41.29	NA	NA	NA	400.82		0.6	
2Q14		4/1/2014	NE	41.81	NA	NA	NA	400.30		0.4	
3Q14		7/1/2014	NE	39.69	NA	NA	NA	402.42		0.0	
4Q14		10/1/2014	NE	39.74	NA	NA	NA	402.37		0.0	
1Q15		1/5/2015	NE	41.26	NA	NA	NA	400.85		0.0	
2Q15		4/2/2015	NE	42.45	NA	NA	NA	399.66		0.0	
ROST-4-PZ(B)											
3Q12	442.38	7/2/2012	NE	38.28	NA	NA	NA	404.10	407.33 - 397.33 (35.05 - 45.05)	0.0	
4Q12		10/1/2012	NE	39.62	NA	NA	NA	402.76		0.0	
1Q13		1/2/2013	NE	40.61	NA	NA	NA	401.77		0.0	
2Q13		4/1/2013	NE	41.55	NA	NA	NA	400.83		0.5	
3Q13		7/1/2013	NE	39.52	NA	NA	NA	402.86		0.0	
4Q13		10/1/2013	NE	38.58	NA	NA	NA	403.80		1.1	
1Q14		2/10/2014	NE	40.84	NA	NA	NA	401.54		0.3	
2Q14		4/1/2014	NE	41.18	NA	NA	NA	401.20		0.0	
3Q14		7/1/2014	NE	41.38	NA	NA	NA	401.00		0.0	
4Q14		10/1/2014	NE	40.00	NA	NA	NA	402.38		0.0	
1Q15		1/5/2015	NE	40.55	NA	NA	NA	401.83		0.0	
2Q15		4/2/2015	NE	42.22	NA	NA	NA	400.16		6.1	
ROST-4-PZ(C)											
3Q12	442.66	7/2/2012	NE	39.09	NA	NA	NA	403.57	407.71 - 397.71 (34.95 - 44.95)	0.0	
4Q12		10/1/2012	NE	40.43	NA	NA	NA	402.23		0.0	
1Q13		1/2/2013	NE	41.42	NA	NA	NA	401.24		0.0	
2Q13		4/1/2013	NE	42.34	NA	NA	NA	400.32		0.0	
3Q13		7/1/2013	NE	40.57	NA	NA	NA	402.09		0.2	
4Q13		10/1/2013	NE	39.77	NA	NA	NA	402.89		0.0	
1Q14		2/10/2014	NE	41.92	NA	NA	NA	400.74		0.2	
2Q14		4/1/2014	NE	42.19	NA	NA	NA	400.47		0.0	
3Q14		7/1/2014	NE	42.38	NA	NA	NA	400.28		0.0	
4Q14		10/1/2014	NE	41.28	NA	NA	NA	401.38		0.0	
1Q15		1/5/2015	NE	41.74	NA	NA	NA	400.92		0.0	
2Q15		4/2/2015	NE	42.80	NA	NA	NA	399.86		0.0	
ROST-4-PZ(D)											
3Q12	442.98	7/2/2012	NE	39.99	NA	NA	NA	402.99	408.01 - 398.01 (34.97 - 44.97)	0.0	
4Q12		10/1/2012	NE	NE	NA	NA	NA	NA		0.0	Well Dry
1Q13		1/2/2013	NE	NE	NA	NA	NA	NA		0.0	Well Dry
2Q13		4/1/2013	NE	NE	NA	NA	NA	NA		3.4	Well Dry
3Q13		7/1/2013	NE	NE	NA	NA	NA	NA		0.0	Well Dry
4Q13		10/1/2013	NE	39.63	NA	NA	NA	403.35		0.0	
1Q14		2/10/2014	NE	41.78	NA	NA	NA	401.20		0.6	
2Q14		4/1/2014	NE	42.10	NA	NA	NA	400.88		0.6	
3Q14		7/1/2014	NE	42.22	NA	NA	NA	400.76		0.0	
4Q14		10/1/2014	NE	41.06	NA	NA	NA	401.92		0.0	
1Q15		1/5/2015	NE	41.54	NA	NA	NA	401.44		43.0	
2Q15		4/2/2015	42.59	42.65	400.33	400.39	0.06	400.38		0.0	

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
ROST-4-PZ(E)											
3Q12	441.96	7/2/2012	38.13	38.19	403.77	403.83	0.06	403.82	407.21 - 397.21 (34.75 - 44.75)	0.0	
4Q12		10/1/2012	39.28	39.31	402.65	402.68	0.03	402.67		0.0	
1Q13		1/2/2013	NE	40.02	NA	NA	NA	401.94		0.0	
2Q13		4/1/2013	NE	40.80	NA	NA	NA	401.16		1.2	
3Q13		7/1/2013	NE	39.58	NA	NA	NA	402.38		0.0	
4Q13		10/1/2013	NE	38.70	NA	NA	NA	403.26		1.9	
1Q14		2/10/2014	40.60	40.62	401.34	401.36	0.02	401.36		0.3	
2Q14		4/1/2014	NE	40.38	NA	NA	NA	401.58		0.0	
3Q14		7/1/2014	NE	40.59	NA	NA	NA	401.37		1.1	
4Q14		10/1/2014	NE	39.71	NA	NA	NA	402.25		0.0	
1Q15		1/5/2015	NE	39.95	NA	NA	NA	402.01		1.9	
2Q15		4/2/2015	NE	41.22	NA	NA	NA	400.74		0.0	
ROST-4-PZ(F)											
3Q12	442.12	7/2/2012	NE	38.29	NA	NA	NA	403.83	407.59 - 397.59 (34.53 - 44.53)	0.0	
4Q12		10/1/2012	NE	39.46	NA	NA	NA	402.66		0.0	
1Q13		1/2/2013	NE	40.30	NA	NA	NA	401.82		0.0	
2Q13		4/1/2013	NE	41.12	NA	NA	NA	401.00		0.8	
3Q13		7/1/2013	NE	39.67	NA	NA	NA	402.45		0.0	
4Q13		10/1/2013	NE	38.83	NA	NA	NA	403.29		1.0	
1Q14		2/10/2014	NE	40.22	NA	NA	NA	401.90		0.3	
2Q14		4/1/2014	NE	40.45	NA	NA	NA	401.67		1.0	
3Q14		7/1/2014	NE	40.51	NA	NA	NA	401.61		2.4	
4Q14		10/1/2014	NE	39.79	NA	NA	NA	402.33		0.0	
1Q15		1/5/2015	39.92	39.93	402.19	402.20	0.01	402.20		0.0	
2Q15		4/2/2015	NE	40.54	NA	NA	NA	401.58		0.0	
ROST-4-PZ(G)											
3Q12	442.13	7/2/2012	NE	38.79	NA	NA	NA	403.34	407.85 - 397.85 (34.28 - 44.28)	0.0	
4Q12		10/1/2012	NE	40.54	NA	NA	NA	401.59		0.0	
1Q13		1/2/2013	NE	41.49	NA	NA	NA	400.64		0.0	
2Q13		4/1/2013	NE	42.14	NA	NA	NA	399.99		0.0	
3Q13		7/1/2013	NE	39.68	NA	NA	NA	402.45		49.3	
4Q13		10/1/2013	NE	40.22	NA	NA	NA	401.91		40.6	
1Q14		2/10/2014	NE	42.35	NA	NA	NA	399.78		0.1	
2Q14		4/1/2014	NE	42.79	NA	NA	NA	399.34		0.5	
3Q14		7/1/2014	NE	42.08	NA	NA	NA	400.05		0.2	
4Q14		10/1/2014	NE	41.26	NA	NA	NA	400.87		0.0	
1Q15		1/5/2015	NE	41.97	NA	NA	NA	400.16		3.3	
2Q15		4/2/2015	NE	43.29	NA	NA	NA	398.84		0.0	
ROST-5-PZ											
3Q12	442.22	7/2/2012	NE	NE	NA	NA	NA	NA	429.02 - 419.02 (13.20 - 23.20)	0.0	Well Dry
4Q12		10/1/2012	NE	NE	NA	NA	NA	NA		0.0	Well Dry
1Q13		1/2/2013	NE	NE	NA	NA	NA	NA		0.0	Well Dry
2Q13		4/1/2013	NE	NE	NA	NA	NA	NA		0.0	Well Dry
3Q13		7/1/2013	NE	22.98	NA	NA	NA	419.24		0.6	
4Q13		10/1/2013	NE	NE	NA	NA	NA	NA		0.0	Well Dry
1Q14		2/10/2014	NE	NE	NA	NA	NA	NA		0.2	Well Dry
2Q14		4/3/2014	NE	NE	NA	NA	NA	NA		5.1	Well Dry
3Q14		7/2/2014	NE	NE	NA	NA	NA	NA		0.0	Well Dry
4Q14		10/1/2014	NE	NE	NA	NA	NA	NA		0.0	Well Dry
1Q15		1/5/2015	NE	NE	NA	NA	NA	NA		3.3	Well Dry
2Q15		4/2/2015	NE	NE	NA	NA	NA	NA		0.0	Well Dry
ROST-7-PZ											
3Q12	442.19	7/2/2012	NE	23.33	NA	NA	NA	418.86	422.19 - 412.19 (20.00 - 30.00)	0.0	
4Q12		10/1/2012	NE	23.86	NA	NA	NA	418.33		0.0	
1Q13		1/3/2013	NM	NM	NA	NA	NA	NA		NM	
2Q13		4/1/2013	NE	25.51	NA	NA	NA	416.68		15.0	
3Q13		7/5/2013	NE	22.28	NA	NA	NA	419.91		12.5	
4Q13		10/1/2013	NE	22.41	NA	NA	NA	419.78		0.0	
1Q14		2/10/2014	NE	23.49	NA	NA	NA	418.70		0.3	
2Q14		4/3/2014	NE	23.88	NA	NA	NA	418.31		1.4	
3Q14		7/1/2014	NE	22.88	NA	NA	NA	419.31		0.0	
4Q14		10/1/2014	NE	21.81	NA	NA	NA	420.38		0.0	
1Q15		1/6/2015	NE	NE	NA	NA	NA	NA		0.0	Well Dry
2Q15		4/2/2015	NE	21.71	NA	NA	NA	420.48		0.0	

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
ROST-10-PZ											
3Q12	444.51	7/2/2012	NE	NE	NA	NA	NA	NA	434.51 - 424.51 (10.00 - 20.00)	0.0	Well Dry
4Q12		10/1/2012	NE	NE	NA	NA	NA	NA		0.0	Well Dry
1Q13		1/3/2013	NE	NE	NA	NA	NA	NA		0.0	Well Dry
2Q13		4/1/2013	NE	NE	NA	NA	NA	NA		1.5	Well Dry
3Q13		7/1/2013	NE	NE	NA	NA	NA	NA		0.5	Well Dry
4Q13		10/1/2013	NE	NE	NA	NA	NA	NA		0.0	Well Dry
1Q14		2/10/2014	NE	NE	NA	NA	NA	NA		0.7	Well Dry
2Q14		4/2/2014	NE	NE	NA	NA	NA	NA		0.1	Well Dry
3Q14		7/1/2014	NE	NE	NA	NA	NA	NA		0.0	Well Dry
4Q14		10/1/2014	NE	NE	NA	NA	NA	NA		0.0	Well Dry
1Q15		1/5/2015	NE	NE	NA	NA	NA	NA		0.0	Well Dry
2Q15		4/2/2015	NE	NE	NA	NA	NA	NA		0.0	Well Dry
ROST-21-PZ											
3Q12	443.72	7/2/2012	NE	19.34	NA	NA	NA	424.38	433.72 - 423.72 (10.00 - 20.00)	0.0	
4Q12		10/1/2012	NE	NE	NA	NA	NA	NA		0.0	Well Dry
1Q13		1/3/2013	NE	NE	NA	NA	NA	NA		0.0	Well Dry
2Q13		4/1/2013	NE	NE	NA	NA	NA	NA		4.6	Well Dry
3Q13		7/1/2013	NE	18.42	NA	NA	NA	425.30		0.2	
4Q13		10/1/2013	NE	19.38	NA	NA	NA	424.34		1.9	
1Q14		2/10/2014	NE	NE	NA	NA	NA	NA		4.9	Well Dry
2Q14		4/1/2014	NE	NE	NA	NA	NA	NA		0.5	Well Dry
3Q14		7/1/2014	NE	19.13	NA	NA	NA	424.59		0.0	
4Q14		10/1/2014	NE	19.38	NA	NA	NA	424.34		0.0	
1Q15		1/5/2015	NE	19.62	NA	NA	NA	424.10		0.0	
2Q15		4/2/2015	NE	19.70	NA	NA	NA	424.02		0.0	
S-1											
3Q12	443.79	7/3/2012	NE	40.38	NA	NA	NA	403.41	Unknown	0.0	
4Q12		10/1/2012	NE	41.93	NA	NA	NA	401.86		32.0	
1Q13		1/4/2013	NE	43.35	NA	NA	NA	400.44		0.0	
2Q13		4/1/2013	NE	44.20	NA	NA	NA	399.59		15.1	
3Q13		7/5/2013	NE	42.12	NA	NA	NA	401.67		126.0	
4Q13		10/2/2013	NE	41.99	NA	NA	NA	401.80		52.0	
1Q14		2/12/2014	43.95	43.96	399.83	399.84	0.01	399.84		123.9	
2Q14		4/4/2014	NE	45.28	NA	NA	NA	398.51		0.2	
3Q14		7/2/2014	44.00	44.01	399.78	399.79	0.01	399.79		195.7	
4Q14		10/2/2014	42.80	42.82	400.97	400.99	0.02	400.99		256.4	
1Q15	443.90	1/5/2015	43.77	45.18	398.72	400.13	1.41	399.85		225.8	
2Q15		4/1/2015	45.40	46.07	397.83	398.50	0.67	398.37		201.5	
T-1											
3Q12	445.40	7/2/2012	NE	41.19	NA	NA	NA	404.21	398.40 - 388.40 (47.00 - 57.00)	0.3	*
4Q12		10/1/2012	NE	42.90	NA	NA	NA	402.50		0.2	*
1Q13		1/3/2013	NE	44.17	NA	NA	NA	401.23		0.0	*
2Q13		4/2/2013	NE	44.94	NA	NA	NA	400.46		0.3	*
3Q13		7/3/2013	NE	42.85	NA	NA	NA	402.55		4.2	*
4Q13		10/1/2013	NE	42.61	NA	NA	NA	402.79		1.5	*
1Q14		2/11/2014	NE	44.35	NA	NA	NA	401.05		1.1	*
2Q14		4/1/2014	NE	44.84	NA	NA	NA	400.56		0.0	*
3Q14		7/1/2014	NE	44.87	NA	NA	NA	400.53		0.0	*
4Q14		10/2/2014	NE	43.94	NA	NA	NA	401.46		0.2	*
1Q15		1/6/2015	NE	44.51	NA	NA	NA	400.89		0.2	*
2Q15		4/3/2015	NE	45.35	NA	NA	NA	400.05		0.0	*
T-2											
3Q12	443.12	7/2/2012	NE	39.15	NA	NA	NA	403.98	392.63 - 372.48 (50.49 - 70.64)	0.0	*
4Q12		10/1/2012	NE	41.11	NA	NA	NA	402.02		0.3	*
1Q13		1/3/2013	NE	43.39	NA	NA	NA	399.74		0.0	*
2Q13		4/2/2013	NE	43.35	NA	NA	NA	399.78		0.7	*
3Q13		7/3/2013	NE	41.48	NA	NA	NA	401.64		0.0	*
4Q13		10/1/2013	NE	41.34	NA	NA	NA	401.78		0.0	*
1Q14		2/11/2014	NE	42.83	NA	NA	NA	400.30		0.7	*
2Q14		4/1/2014	NE	43.69	NA	NA	NA	399.44		0.0	*
3Q14		7/1/2014	NE	43.11	NA	NA	NA	400.02		0.0	*
4Q14		10/2/2014	NE	42.36	NA	NA	NA	400.76		0.0	*
1Q15	443.21	1/6/2015	NE	42.77	NA	NA	NA	400.44	392.72 - 372.56 (50.49 - 70.64)	0.2	*
2Q15		4/3/2015	NE	43.78	NA	NA	NA	399.43		0.0	*

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
T-3											
3Q12	450.91	7/2/2012	NE	48.00	NA	NA	NA	402.91	403.65 - 388.65 (47.26 - 62.26)	0.0	
4Q12		10/1/2012	NE	50.04	NA	NA	NA	400.87		7.3	
1Q13		1/4/2013	NE	51.55	NA	NA	NA	399.36		2.1	
2Q13		4/1/2013	NE	52.35	NA	NA	NA	398.56		0.0	
3Q13		7/3/2013	NE	50.95	NA	NA	NA	399.96		4.8	
4Q13		10/1/2013	NE	50.78	NA	NA	NA	400.13		10.2	
1Q14		2/12/2014	NE	52.01	NA	NA	NA	398.90		56.2	
2Q14		4/1/2014	NE	53.18	NA	NA	NA	397.73		0.0	
3Q14		7/2/2014	NE	52.21	NA	NA	NA	398.70		0.8	
4Q14		10/2/2014	NE	51.58	NA	NA	NA	399.33		3.4	
1Q15	451.07	1/9/2015	NE	51.44	NA	NA	NA	399.63	403.81 - 388.81 (47.26 - 62.26)	2.5	
2Q15		4/3/2015	NE	50.57	NA	NA	NA	400.50		0.1	
T-4											
3Q12	447.95	7/3/2012	NE	46.57	NA	NA	NA	401.38	398.24 - 383.24 (49.71 - 64.71)	0.0	*
4Q12		10/1/2012	NE	46.78	NA	NA	NA	401.17		0.0	*
1Q13		1/4/2013	NE	48.60	NA	NA	NA	399.35		0.0	*
2Q13		4/1/2013	NE	49.26	NA	NA	NA	398.69		0.0	*
3Q13		7/3/2013	NE	49.33	NA	NA	NA	398.62		1.1	*
4Q13		10/1/2013	NE	47.84	NA	NA	NA	400.11		0.1	*
1Q14		2/12/2014	NE	49.97	NA	NA	NA	397.98		4.5	
2Q14		4/4/2014	NE	52.42	NA	NA	NA	395.53		0.3	
3Q14		7/1/2014	NE	49.71	NA	NA	NA	398.24		0.0	
4Q14		10/2/2014	NE	49.63	NA	NA	NA	398.32		0.1	*
1Q15	448.03	1/9/2015	NE	49.11	NA	NA	NA	398.92	398.32 - 383.32 (49.71 - 64.71)	1.1	*
2Q15		4/6/2015	NE	49.83	NA	NA	NA	398.20		0.3	
T-5											
3Q12	443.46	7/6/2012	NE	39.81	NA	NA	NA	403.65	395.13 - 378.58 (48.33 - 64.88)	0.0	*
4Q12		10/1/2012	NE	41.08	NA	NA	NA	402.38		9.8	*
1Q13		1/4/2013	NE	42.57	NA	NA	NA	400.89		0.0	*
2Q13		4/1/2013	NE	43.42	NA	NA	NA	400.04		0.0	*
3Q13		7/5/2013	NE	41.67	NA	NA	NA	401.79		0.0	*
4Q13		10/1/2013	NE	41.14	NA	NA	NA	402.32		18.2	*
1Q14		2/13/2014	NE	42.96	NA	NA	NA	400.50		174.5	*
2Q14		4/4/2014	NE	44.53	NA	NA	NA	398.93		8.0	*
3Q14		7/2/2014	NE	43.47	NA	NA	NA	399.99		5.4	*
4Q14		10/2/2014	NE	42.44	NA	NA	NA	401.02		0.5	*
1Q15	443.47	1/9/2015	NE	42.54	NA	NA	NA	400.93	395.14 - 378.59 (48.33 - 64.88)	1.9	*
2Q15		4/1/2015	NE	44.23	NA	NA	NA	399.24		0.8	*
T-6											
3Q12	446.55	7/5/2012	NE	43.06	NA	NA	NA	403.49	394.79 - 380.54 (51.76 - 66.01)	0.0	*
4Q12		10/2/2012	NE	44.86	NA	NA	NA	401.69		0.1	*
1Q13		1/4/2013	NE	45.84	NA	NA	NA	400.71		0.0	*
2Q13		4/2/2013	NE	46.69	NA	NA	NA	399.86		0.0	*
3Q13		7/5/2013	NE	43.81	NA	NA	NA	402.74		0.0	*
4Q13		10/1/2013	NE	44.28	NA	NA	NA	402.27		10.0	*
1Q14		2/12/2014	NE	46.63	NA	NA	NA	399.92		6.1	*
2Q14		4/4/2014	NE	47.43	NA	NA	NA	399.12		2.3	*
3Q14		7/1/2014	NE	46.23	NA	NA	NA	400.32		0.0	*
4Q14		10/3/2014	NE	45.18	NA	NA	NA	401.37		0.6	*
1Q15	446.61	1/8/2015	NE	46.78	NA	NA	NA	399.83	394.85 - 380.60 (51.76 - 66.01)	0.2	*
2Q15		4/1/2015	NE	48.56	NA	NA	NA	398.05		0.0	*
T-7											
3Q12	444.01	7/2/2012	38.90	38.96	405.05	405.11	0.06	405.10	395.29 - 380.29 (48.72 - 63.72)	0.0	*
4Q12		10/2/2012	40.80	40.83	403.18	403.21	0.03	403.20		0.3	*
1Q13		1/2/2013	41.66	41.67	402.34	402.35	0.01	402.35		2.4	*
2Q13		4/2/2013	NE	42.78	NA	NA	NA	401.23		9.2	*
3Q13		7/2/2013	NE	40.21	NA	NA	NA	403.80		0.0	*
4Q13		10/2/2013	NE	39.72	NA	NA	NA	404.29		5.1	*
1Q14		2/11/2014	NE	42.60	NA	NA	NA	401.41		4.7	*
2Q14		4/4/2014	NE	43.34	NA	NA	NA	400.67		2.5	*
3Q14		7/3/2014	NE	42.36	NA	NA	NA	401.65		2.4	*
4Q14		10/3/2014	NE	41.33	NA	NA	NA	402.68		6.9	*
1Q15	444.04	1/9/2015	NE	42.58	NA	NA	NA	401.46	395.32 - 380.32 (48.72 - 63.72)	1.8	*
2Q15		4/3/2015	NE	44.17	NA	NA	NA	399.87		5.7	*

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
T-12											
3Q12	444.69	7/5/2012	NE	42.05	NA	NA	NA	402.64	398.23 - 372.23 (46.46 - 72.46)	0.0	*
4Q12		10/2/2012	NE	43.86	NA	NA	NA	400.83		0.5	*
1Q13		1/4/2013	NE	44.65	NA	NA	NA	400.04		0.2	*
2Q13		4/2/2013	NE	45.19	NA	NA	NA	399.50		0.0	*
3Q13		7/5/2013	NE	43.59	NA	NA	NA	401.10		1.4	*
4Q13		10/1/2013	NE	43.64	NA	NA	NA	401.05		5.5	*
1Q14		2/13/2014	NE	45.26	NA	NA	NA	399.43		0.5	*
2Q14		4/4/2014	NE	46.38	NA	NA	NA	398.31		5.1	*
3Q14		7/1/2014	NE	45.31	NA	NA	NA	399.38		0.0	*
4Q14		10/3/2014	NE	44.63	NA	NA	NA	400.06		2.7	*
1Q15	444.80	1/8/2015	NE	44.92	NA	NA	NA	399.88	398.34 - 372.34 (46.46 - 72.46)	2.0	*
2Q15		4/1/2015	NE	46.73	NA	NA	NA	398.07		0.5	
T-13											
3Q12	443.46	7/2/2012	NM	NM	NA	NA	NA	NA	396.46 - 370.46 (47.00 - 73.00)	NM	
4Q12		10/2/2012	NE	40.81	NA	NA	NA	402.65		2.9	*
1Q13		1/2/2013	NE	41.96	NA	NA	NA	401.50		0.0	*
2Q13		4/3/2013	NE	42.96	NA	NA	NA	400.50		0.0	*
3Q13		7/5/2013	NE	40.79	NA	NA	NA	402.67		0.0	*
4Q13		10/3/2013	NE	40.72	NA	NA	NA	402.74		0.0	*
1Q14		2/10/2014	NE	42.54	NA	NA	NA	400.92		0.0	*
2Q14		4/4/2014	NE	43.19	NA	NA	NA	400.27		0.4	*
3Q14		7/1/2014	NE	42.79	NA	NA	NA	400.67		0.0	*
4Q14		10/1/2014	NE	41.98	NA	NA	NA	401.48		0.0	*
1Q15	443.96	1/5/2015	NE	42.41	NA	NA	NA	401.55	396.96 - 370.96 (47.00 - 73.00)	0.0	*
2Q15		4/2/2015	NE	43.45	NA	NA	NA	400.51		0.0	*
T-15											
3Q12	445.03	7/2/2012	NE	40.90	NA	NA	NA	404.13	396.99 - 370.99 (48.04 - 74.04)	0.0	*
4Q12		10/1/2012	NE	42.81	NA	NA	NA	402.22		0.0	*
1Q13		1/3/2013	NE	44.24	NA	NA	NA	400.79		0.0	*
2Q13		4/2/2013	NE	45.11	NA	NA	NA	399.92		0.0	*
3Q13		7/3/2013	NE	43.58	NA	NA	NA	401.45		0.2	*
4Q13		10/1/2013	NE	43.48	NA	NA	NA	401.55		11.5	*
1Q14		2/11/2014	NE	44.75	NA	NA	NA	400.28		0.5	*
2Q14		4/1/2014	NE	45.69	NA	NA	NA	399.34		0.0	*
3Q14		7/1/2014	NE	45.12	NA	NA	NA	399.91		0.0	*
4Q14		10/1/2014	NE	44.41	NA	NA	NA	400.62		0.0	*
1Q15	445.14	1/6/2015	NE	44.68	NA	NA	NA	400.46	397.10 - 371.10 (48.04 - 74.04)	0.1	*
2Q15		4/3/2015	NE	45.58	NA	NA	NA	399.56		0.0	*
T-17											
3Q12	445.90	7/2/2012	NE	39.29	NA	NA	NA	406.61	401.80 - 375.80 (44.10 - 70.10)	0.0	*
4Q12		10/1/2012	NE	40.92	NA	NA	NA	404.98		0.0	*
1Q13		1/3/2013	NE	42.70	NA	NA	NA	403.20		0.0	*
2Q13		4/2/2013	NE	43.61	NA	NA	NA	402.29		0.0	*
3Q13		7/3/2013	NE	42.34	NA	NA	NA	403.56		1.3	*
4Q13		10/1/2013	NE	42.46	NA	NA	NA	403.44		0.0	*
1Q14		2/11/2014	NE	43.93	NA	NA	NA	401.97		2.1	*
2Q14		4/1/2014	NE	45.04	NA	NA	NA	400.86		0.0	
3Q14		7/3/2014	NE	44.50	NA	NA	NA	401.40		0.0	
4Q14		10/1/2014	NE	44.00	NA	NA	NA	401.90		0.0	*
1Q15	446.01	1/6/2015	NE	43.75	NA	NA	NA	402.26	401.91 - 375.91 (44.10 - 70.10)	0.1	*
2Q15		4/3/2015	NE	44.17	NA	NA	NA	401.84		0.6	
T-19											
3Q12	446.71	7/3/2012	NE	45.36	NA	NA	NA	401.35	395.94 - 369.94 (50.77 - 76.77)	0.0	*
4Q12		10/1/2012	NE	45.41	NA	NA	NA	401.30		0.0	*
1Q13		1/4/2013	NE	47.44	NA	NA	NA	399.27		0.0	*
2Q13		4/1/2013	NE	48.09	NA	NA	NA	398.62		0.7	*
3Q13		7/3/2013	NE	48.04	NA	NA	NA	398.67		37.2	*
4Q13		10/1/2013	NE	46.40	NA	NA	NA	400.31		0.8	*
1Q14		2/12/2014	NE	48.54	NA	NA	NA	398.17		24.3	*
2Q14		4/4/2014	NE	50.98	NA	NA	NA	395.73		11.7	
3Q14		7/1/2014	NE	48.42	NA	NA	NA	398.29		4.6	*
4Q14		10/2/2014	NE	48.28	NA	NA	NA	398.43		20.1	*
1Q15	446.79	1/9/2015	NE	47.58	NA	NA	NA	399.21	396.02 - 370.02 (50.77 - 76.77)	1.4	*
2Q15		4/6/2015	NE	48.84	NA	NA	NA	397.95		51.2	*

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
T-21											
3Q12	444.00	7/2/2012	NE	31.14	NA	NA	NA	412.86	412.04 - 386.04 (31.96 - 57.96)	0.0	*
4Q12		10/2/2012	NE	32.62	NA	NA	NA	411.38		0.0	
1Q13		1/2/2013	NE	33.96	NA	NA	NA	410.04		0.0	
2Q13		4/2/2013	NE	34.98	NA	NA	NA	409.02		0.4	
3Q13		7/2/2013	NE	33.45	NA	NA	NA	410.55		0.0	
4Q13		10/2/2013	NE	32.82	NA	NA	NA	411.18		0.0	
1Q14		2/11/2014	NE	34.47	NA	NA	NA	409.53		0.2	
2Q14		4/4/2014	NE	35.28	NA	NA	NA	408.72		0.2	
3Q14		7/3/2014	NE	34.83	NA	NA	NA	409.17		0.0	
4Q14		10/3/2014	NE	34.47	NA	NA	NA	409.53		0.1	
1Q15	443.99	1/9/2015	NE	34.26	NA	NA	NA	409.73	412.03 - 386.03 (31.96 - 57.96)	0.0	
2Q15		4/3/2015	NE	34.80	NA	NA	NA	409.19		0.0	
T-22											
3Q12	442.21	7/2/2012	NE	32.81	NA	NA	NA	409.40	410.66 - 384.96 (31.55 - 57.25)	0.0	
4Q12		10/2/2012	NE	34.45	NA	NA	NA	407.76		0.0	
1Q13		1/2/2013	NE	35.62	NA	NA	NA	406.59		0.0	
2Q13		4/2/2013	NE	36.44	NA	NA	NA	405.77		0.1	
3Q13		7/2/2013	NE	34.04	NA	NA	NA	408.17		0.0	
4Q13		10/2/2013	NE	33.85	NA	NA	NA	408.36		0.0	
1Q14		2/11/2014	NE	35.93	NA	NA	NA	406.28		0.7	
2Q14		4/4/2014	NE	36.61	NA	NA	NA	405.60		0.2	
3Q14		7/3/2014	NE	35.96	NA	NA	NA	406.25		0.0	
4Q14		10/3/2014	NE	35.19	NA	NA	NA	407.02		0.1	
1Q15	442.19	1/9/2015	NE	35.29	NA	NA	NA	406.90	410.64 - 384.94 (31.55 - 57.25)	0.0	
2Q15		4/3/2015	NE	36.38	NA	NA	NA	405.81		0.2	
T-23											
3Q12	432.64	7/2/2012	NE	25.60	NA	NA	NA	407.04	405.41 - 379.41 (27.23 - 53.23)	0.0	*
4Q12		10/2/2012	NE	27.37	NA	NA	NA	405.27		0.0	
1Q13		1/3/2013	NE	28.35	NA	NA	NA	404.29		0.0	
2Q13		4/2/2013	NE	29.04	NA	NA	NA	403.60		0.2	
3Q13		7/2/2013	NE	26.95	NA	NA	NA	405.69		0.0	*
4Q13		10/2/2013	NE	26.40	NA	NA	NA	406.24		0.0	*
1Q14		2/10/2014	NE	28.80	NA	NA	NA	403.84		0.1	
2Q14		4/4/2014	NE	29.45	NA	NA	NA	403.19		0.0	
3Q14		7/2/2014	NE	28.37	NA	NA	NA	404.27		0.8	
4Q14		10/2/2014	NE	27.29	NA	NA	NA	405.35		0.0	
1Q15	432.69	1/8/2015	NE	28.04	NA	NA	NA	404.65	405.46 - 379.46 (27.23 - 53.23)	0.9	
2Q15		4/6/2015	NM	NM	NA	NA	NA	NA		NM	Unable to locate well
T-24											
3Q12	443.72	7/3/2012	NE	40.45	NA	NA	NA	403.27	402.22 - 376.57 (41.50 - 67.15)	0.0	*
4Q12		10/1/2012	42.02	44.87	398.85	401.70	2.85	401.13		5.8	
1Q13		1/4/2013	NE	43.20	NA	NA	NA	400.52		4.3	
2Q13		4/2/2013	44.58	44.64	399.08	399.14	0.06	399.13		0.0	
3Q13		7/2/2013	42.16	42.55	401.17	401.56	0.39	401.48		10.0	
4Q13		10/2/2013	42.20	42.22	401.50	401.52	0.02	401.51		0.8	
1Q14		2/12/2014	43.35	45.60	398.12	400.37	2.25	399.92		8.2	
2Q14		4/4/2014	44.95	45.44	398.28	398.77	0.49	398.67		0.4	
3Q14		7/2/2014	44.09	44.26	399.46	399.63	0.17	399.59		0.0	
4Q14		10/3/2014	43.12	44.01	399.71	400.60	0.89	400.42		1.6	
1Q15	443.81	1/9/2015	43.75	45.39	398.42	400.06	1.64	399.73	402.31 - 376.66 (41.50 - 67.15)	3.4	
2Q15		4/1/2015	45.02	46.10	397.71	398.79	1.08	398.57		0.0	
T-28											
3Q12	444.22	7/2/2012	NE	39.28	NA	NA	NA	404.94	Unknown	0.0	
4Q12		10/1/2012	NE	40.88	NA	NA	NA	403.34		0.0	
1Q13		1/3/2013	NE	42.56	NA	NA	NA	401.66		0.0	
2Q13		4/2/2013	NE	43.42	NA	NA	NA	400.80		0.0	
3Q13		7/3/2013	NE	42.40	NA	NA	NA	401.82		0.0	
4Q13		10/1/2013	NE	39.17	NA	NA	NA	405.05		2.1	
1Q14		2/11/2014	NE	43.72	NA	NA	NA	400.50		0.8	
2Q14		4/1/2014	NE	44.84	NA	NA	NA	399.38		0.0	
3Q14		7/1/2014	NE	44.05	NA	NA	NA	400.17		0.0	
4Q14		10/1/2014	NE	43.60	NA	NA	NA	400.62		0.0	
1Q15	444.43	1/6/2015	NE	43.46	NA	NA	NA	400.97		0.0	
2Q15		4/6/2015	NE	43.93	NA	NA	NA	400.50		1.1	

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
T-37											
3Q12	447.15	7/2/2012	NE	39.91	NA	NA	NA	407.24	398.30 - 378.30 (48.85 - 68.85)	0.0	*
4Q12		10/1/2012	NE	41.44	NA	NA	NA	405.71		0.0	*
1Q13		1/3/2013	NE	43.07	NA	NA	NA	404.08		0.0	*
2Q13		4/1/2013	NE	43.79	NA	NA	NA	403.36		0.0	*
3Q13		7/3/2013	NE	42.66	NA	NA	NA	404.49		0.0	*
4Q13		10/1/2013	NE	42.51	NA	NA	NA	404.64		0.1	*
1Q14		2/12/2014	NE	44.08	NA	NA	NA	403.07		4.1	*
2Q14		4/1/2014	NE	44.91	NA	NA	NA	402.24		0.0	*
3Q14		7/1/2014	NE	44.44	NA	NA	NA	402.71		0.0	*
4Q14		10/2/2014	NE	44.03	NA	NA	NA	403.12		17.4	*
1Q15	447.25	1/9/2015	NE	43.17	NA	NA	NA	404.08	398.40 - 378.40 (48.85 - 68.85)	1.4	*
2Q15		4/3/2015	NE	43.93	NA	NA	NA	403.32		0.0	*
T-38											
3Q12	445.62	7/3/2012	NE	37.00	NA	NA	NA	408.62	396.48 - 376.48 (49.14 - 69.14)	0.0	*
4Q12		10/1/2012	NE	38.61	NA	NA	NA	407.01		0.0	*
1Q13		1/3/2013	NE	40.06	NA	NA	NA	405.56		0.0	*
2Q13		4/1/2013	NM	NM	NA	NA	NA	NA		NM	Unsafe condition
3Q13		7/3/2013	NM	NM	NA	NA	NA	NA		NM	Unsafe condition
4Q13		10/1/2013	NM	NM	NA	NA	NA	NA		NM	Unsafe condition
1Q14		2/12/2014	NE	41.21	NA	NA	NA	404.41		0.3	*
2Q14		4/3/2014	NE	41.38	NA	NA	NA	404.24		0.0	*
3Q14		7/1/2014	NE	41.39	NA	NA	NA	404.23		0.0	*
4Q14		10/2/2014	NE	40.96	NA	NA	NA	404.66		0.0	*
1Q15	445.67	1/9/2015	NE	39.96	NA	NA	NA	405.71	396.53 - 376.53 (49.14 - 69.14)	0.0	*
2Q15		4/3/2015	NE	40.64	NA	NA	NA	405.03		0.0	*
T-62											
3Q12	431.73	7/3/2012	NE	27.20	NA	NA	NA	404.53	412.02 - 382.02 (19.71 - 49.71)	0.0	
4Q12		10/2/2012	NE	29.28	NA	NA	NA	402.45		0.0	
1Q13		1/7/2013	NE	30.39	NA	NA	NA	401.34		0.0	
2Q13		4/2/2013	NE	30.80	NA	NA	NA	400.93		0.0	
3Q13		7/2/2013	NE	26.91	NA	NA	NA	404.82		0.0	
4Q13		10/2/2013	NE	27.81	NA	NA	NA	403.92		0.0	
1Q14		2/11/2014	NE	30.81	NA	NA	NA	400.92		31.0	
2Q14		4/7/2014	NE	31.37	NA	NA	NA	400.36		0.0	
3Q14		7/2/2014	NM	NM	NA	NA	NA	NA		NM	
4Q14		10/3/2014	NE	28.62	NA	NA	NA	403.11		0.1	
1Q15	431.99	1/12/2015	NE	30.15	NA	NA	NA	401.84	412.28 - 382.28 (19.71 - 49.71)	0.0	
2Q15		4/3/2015	NE	31.72	NA	NA	NA	400.27		0.0	
T-63											
3Q12	431.24	7/3/2012	NE	27.08	NA	NA	NA	404.16	411.26 - 381.26 (19.98 - 49.98)	0.0	
4Q12		10/2/2012	NE	29.19	NA	NA	NA	402.05		0.0	
1Q13		1/7/2013	NE	30.45	NA	NA	NA	400.79		0.0	
2Q13		4/2/2013	NE	30.61	NA	NA	NA	400.63		0.0	
3Q13		7/2/2013	NE	25.92	NA	NA	NA	405.32		0.0	
4Q13		10/2/2013	NE	27.63	NA	NA	NA	403.61		0.0	
1Q14		2/11/2014	NE	30.74	NA	NA	NA	400.50		0.5	
2Q14		4/7/2014	NE	30.80	NA	NA	NA	400.44		0.1	
3Q14		7/2/2014	NE	29.21	NA	NA	NA	402.03		1.0	
4Q14		10/3/2014	NE	28.11	NA	NA	NA	403.13		0.0	
1Q15	431.43	1/5/2015	NM	NM	NA	NA	NA	NA	411.45 - 381.45 (19.98 - 49.98)	NM	Inaccessible due to ice
2Q15		4/3/2015	NE	31.52	NA	NA	NA	399.91		0.5	
T-64											
3Q12	428.80	7/3/2012	NE	25.24	NA	NA	NA	403.56	408.99 - 378.99 (19.81 - 49.81)	0.0	
4Q12		10/2/2012	NE	27.44	NA	NA	NA	401.36		0.0	
1Q13		1/7/2013	NE	28.89	NA	NA	NA	399.91		0.0	
2Q13		4/2/2013	NE	28.63	NA	NA	NA	400.17		0.1	
3Q13		7/2/2013	NE	23.15	NA	NA	NA	405.65		0.2	
4Q13		10/2/2013	NE	25.86	NA	NA	NA	402.94		0.0	
1Q14		2/11/2014	NE	29.03	NA	NA	NA	399.77		0.4	
2Q14		4/4/2014	NE	29.29	NA	NA	NA	399.51		0.0	
3Q14		7/2/2014	NE	26.90	NA	NA	NA	401.90		0.8	
4Q14		10/3/2014	NE	25.81	NA	NA	NA	402.99		0.0	
1Q15	428.93	1/12/2015	NE	27.96	NA	NA	NA	400.97	409.12 - 379.12 (19.81 - 49.81)	0.9	
2Q15		4/3/2015	NE	29.46	NA	NA	NA	399.47		1.6	

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & QUARTER	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
PZ-1-85											
3Q12	445.50	7/2/2012	NM	NM	NA	NA	NA	NA	369.70 - 359.70 (75.80 - 85.80)	NM	
4Q12		10/1/2012	NE	43.06	NA	NA	NA	402.44		0.0	*
1Q13		1/3/2013	NE	44.35	NA	NA	NA	401.15		0.0	*
2Q13		4/1/2013	NE	45.12	NA	NA	NA	400.38		0.6	*
3Q13		7/1/2013	NE	42.68	NA	NA	NA	402.82		0.0	*
4Q13		10/1/2013	NE	42.63	NA	NA	NA	402.87		1.5	*
1Q14		2/10/2014	NE	44.82	NA	NA	NA	400.68		1.9	*
2Q14		4/1/2014	NE	45.30	NA	NA	NA	400.20		3.3	*
3Q14		7/1/2014	NE	44.82	NA	NA	NA	400.68		4.4	*
4Q14	445.48	10/1/2014	NE	43.88	NA	NA	NA	401.60	369.70 - 359.70 (75.78 - 85.78)	0.1	*
1Q15		1/5/2015	NE	44.48	NA	NA	NA	401.00		0.0	*
2Q15		4/2/2015	NE	45.81	NA	NA	NA	399.67		0.6	*
PZ-1-101											
3Q12	445.52	7/2/2012	NE	41.28	NA	NA	NA	404.24	354.52 - 344.52 (91.00 - 101.00)	0.0	*
4Q12		10/1/2012	NE	42.95	NA	NA	NA	402.57		0.0	*
1Q13		1/3/2013	NE	44.21	NA	NA	NA	401.31		0.0	*
2Q13		4/1/2013	NE	45.04	NA	NA	NA	400.48		0.1	*
3Q13		7/1/2013	NE	42.50	NA	NA	NA	403.02		0.0	*
4Q13		10/1/2013	NE	42.50	NA	NA	NA	403.02		0.6	*
1Q14		2/10/2014	NE	44.69	NA	NA	NA	400.83		0.4	*
2Q14		4/1/2014	NE	45.17	NA	NA	NA	400.35		0.0	*
3Q14		7/1/2014	NE	44.69	NA	NA	NA	400.83		3.6	*
4Q14	445.49	10/1/2014	NE	43.74	NA	NA	NA	401.75	354.52 - 344.52 (90.97 - 100.97)	0.1	*
1Q15		1/5/2015	NE	44.36	NA	NA	NA	401.13		0.0	*
2Q15		4/2/2015	NE	45.67	NA	NA	NA	399.82		0.0	*
PZ-2-70.5											
3Q12	443.15	7/2/2012	NE	39.57	NA	NA	NA	403.58	382.65 - 372.65 (60.50 - 70.50)	0.0	*
4Q12		10/1/2012	NE	41.32	NA	NA	NA	401.83		0.0	*
1Q13		1/3/2013	NE	42.40	NA	NA	NA	400.75		0.0	*
2Q13		4/1/2013	NE	43.03	NA	NA	NA	400.12		8.4	*
3Q13		7/1/2013	NE	40.13	NA	NA	NA	403.02		0.0	*
4Q13		10/1/2013	NE	40.22	NA	NA	NA	402.93		212.2	*
1Q14		2/10/2014	NE	43.11	NA	NA	NA	400.04		12.5	*
2Q14		4/2/2014	NE	43.53	NA	NA	NA	399.62		44.6	*
3Q14		7/1/2014	NE	42.58	NA	NA	NA	400.57		1.1	*
4Q14	443.06	10/1/2014	NE	41.50	NA	NA	NA	401.56	382.65 - 372.65 (60.41 - 70.41)	143.5	*
1Q15		1/5/2015	NE	42.60	NA	NA	NA	400.46		66.0	*
2Q15		4/2/2015	NE	44.18	NA	NA	NA	398.88		3.7	*
PZ-2-84											
3Q12	443.12	7/2/2012	NE	39.48	NA	NA	NA	403.64	371.12 - 359.12 (72.00 - 84.00)	0.0	*
4Q12		10/1/2012	NE	41.21	NA	NA	NA	401.91		0.0	*
1Q13		1/3/2013	NE	42.32	NA	NA	NA	400.80		0.0	*
2Q13		4/1/2013	NE	42.95	NA	NA	NA	400.17		0.0	*
3Q13		7/1/2013	NE	40.03	NA	NA	NA	403.09		0.4	*
4Q13		10/1/2013	NE	40.55	NA	NA	NA	402.57		0.0	*
1Q14		2/10/2014	NE	43.02	NA	NA	NA	400.10		0.5	*
2Q14		4/2/2014	NE	43.47	NA	NA	NA	399.65		0.0	*
3Q14		7/1/2014	NE	42.45	NA	NA	NA	400.67		1.2	*
4Q14	443.00	10/1/2014	NE	41.39	NA	NA	NA	401.61	371.12 - 359.12 (71.88 - 83.88)	0.0	*
1Q15		1/5/2015	NE	42.50	NA	NA	NA	400.50		85.5	*
2Q15		4/2/2015	NE	44.08	NA	NA	NA	398.92		5.2	*

NOTES:
1) Elevations presented in this table are relative to the 1988 USGS datum.
2) The Corrected W.L. 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) 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 from the combined Village of Roxana Interim Groundwater Monitoring Program and the WRB Refining LP Wood River Refinery Program.
7) Wells in the WRR were resurveyed during 4Q14.

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 1b
WEEKLY/MONTHLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & EVENT	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
MW-01											
Monthly	442.65	5/15/2015	NE	44.07	NA	NA	NA	398.58	393.85 - 383.85 (48.80 - 58.80)	0.1	*
		6/2/2015	NE	44.07	NA	NA	NA	398.58		0.0	*
MW-02											
Monthly	443.77	5/15/2015	NE	45.46	NA	NA	NA	398.31	393.90 - 383.90 (49.87 - 59.87)	163.7	*
		6/2/2015	NE	45.47	NA	NA	NA	398.30		147.2	*
MW-03											
Monthly	430.08	5/15/2015	NE	31.06	NA	NA	NA	399.02	395.41 - 385.41 (34.67 - 44.67)	0.0	*
		6/2/2015	NE	31.05	NA	NA	NA	399.03		0.0	*
MW-04											
Monthly	441.14	5/15/2015	NE	42.49	NA	NA	NA	398.65	396.08 - 386.08 (45.06 - 55.06)	78.3	*
		6/2/2015	NE	42.51	NA	NA	NA	398.63		178.7	*
MW-05											
Monthly	429.80	5/14/2015	NE	30.81	NA	NA	NA	398.99	395.83 - 385.83 (33.97 - 43.97)	0.2	*
		6/2/2015	NE	30.78	NA	NA	NA	399.02		0.2	*
MW-06A											
Monthly	432.14	5/14/2015	NE	32.93	NA	NA	NA	399.21	397.31 - 387.31 (34.83 - 44.83)	0.3	*
		6/2/2015	NE	32.94	NA	NA	NA	399.20		0.7	*
MW-06B											
Monthly	432.29	5/14/2015	NE	32.97	NA	NA	NA	399.32	368.24 - 363.24 (64.05 - 69.05)	0.1	*
		6/2/2015	NE	32.97	NA	NA	NA	399.32		0.1	*
MW-06C											
Monthly	432.11	5/14/2015	NE	32.76	NA	NA	NA	399.35	347.16 - 342.16 (84.95 - 89.95)	0.0	*
		6/2/2015	NE	32.76	NA	NA	NA	399.35		0.2	*
MW-06D											
Monthly	431.99	5/14/2015	NE	32.58	NA	NA	NA	399.41	327.27 - 322.27 (104.72 - 109.72)	0.0	*
		6/2/2015	NE	32.60	NA	NA	NA	399.39		0.1	*
MW-07											
Monthly	443.10	5/15/2015	NE	44.63	NA	NA	NA	398.47	400.18 - 390.18 (42.92 - 52.92)	0.9	
		6/2/2015	NE	46.62	NA	NA	NA	396.48		0.0	
MW-08											
Monthly	434.11	5/14/2015	NE	35.37	NA	NA	NA	398.74	400.51 - 390.51 (33.60 - 43.60)	0.0	
		6/2/2015	NE	35.36	NA	NA	NA	398.75		0.0	
MW-09											
Monthly	445.20	5/14/2015	NE	45.39	NA	NA	NA	399.81	398.75 - 388.75 (46.45 - 56.45)	0.2	*
		6/1/2015	NE	45.37	NA	NA	NA	399.83		0.0	*
MW-10											
Monthly	445.03	5/14/2015	NE	45.33	NA	NA	NA	399.70	400.60 - 390.60 (44.43 - 54.43)	0.0	
		6/1/2015	NE	45.32	NA	NA	NA	399.71		0.0	
MW-11											
Monthly	442.33	5/14/2015	NE	43.15	NA	NA	NA	399.18	400.67 - 390.67 (41.66 - 51.66)	0.0	
		6/2/2015	NE	43.12	NA	NA	NA	399.21		0.0	
MW-12											
Monthly	442.60	5/15/2015	NE	43.63	NA	NA	NA	398.97	400.68 - 390.68 (41.92 - 51.92)	3.6	
		6/2/2015	NE	43.63	NA	NA	NA	398.97		0.0	
MW-14											
Monthly	434.44	5/15/2015	NE	35.02	NA	NA	NA	399.42	401.02 - 391.02 (33.42 - 43.42)	53.3	
		6/1/2015	NE	35.13	NA	NA	NA	399.31		55.8	
MW-16											
Monthly	443.39	5/14/2015	NE	44.92	NA	NA	NA	398.47	406.33 - 396.33 (37.06 - 47.06)	0.0	
		6/2/2015	NE	44.91	NA	NA	NA	398.48		0.0	
MW-17											
Monthly	441.57	5/14/2015	NE	43.17	NA	NA	NA	398.40	407.28 - 392.28 (34.29 - 49.29)	0.0	
		6/2/2015	NE	43.17	NA	NA	NA	398.40		0.0	
MW-18											
Monthly	442.04	5/14/2015	NE	43.93	NA	NA	NA	398.11	407.12 - 392.12 (34.92 - 49.92)	0.0	
		6/2/2015	NE	43.94	NA	NA	NA	398.10		0.0	
MW-19											
Weekly	442.77	4/8/2015	NE	44.62	NA	NA	NA	398.15	406.43 - 391.43 (36.34 - 51.34)	1.1	
		4/13/2015	NE	44.71	NA	NA	NA	398.06		0.2	
		4/21/2015	NE	44.64	NA	NA	NA	398.13		0.1	
		4/28/2015	NE	44.58	NA	NA	NA	398.19		0.0	
		5/4/2015	NE	44.51	NA	NA	NA	398.26		0.0	
		5/11/2015	NE	44.55	NA	NA	NA	398.22		0.0	
Monthly		5/14/2015	NE	44.52	NA	NA	NA	398.25		0.0	
Weekly		5/18/2015	NE	44.59	NA	NA	NA	398.18		0.0	
		5/26/2015	NE	44.49	NA	NA	NA	398.28		0.0	
Monthly		6/2/2015	NE	44.52	NA	NA	NA	398.25		0.0	
Weekly		6/8/2015	NE	44.41	NA	NA	NA	398.36		0.0	
		6/16/2015	NE	44.43	NA	NA	NA	398.34		0.0	
		6/23/2015	NE	44.38	NA	NA	NA	398.39		0.0	
		6/29/2015	NE	44.27	NA	NA	NA	398.50		0.0	
MW-20											
Monthly	443.67	5/15/2015	NE	45.36	NA	NA	NA	398.31	407.79 - 392.79 (35.88 - 50.88)	0.0	
		6/2/2015	NE	45.37	NA	NA	NA	398.30		0.0	

TABLE 1b
WEEKLY/MONTHLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & EVENT	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
MW-21											
Monthly	443.81	5/14/2015	NE	45.60	NA	NA	NA	398.21	408.80 - 393.80 (35.01 - 50.01)	0.0	
		6/2/2015	NE	45.60	NA	NA	NA	398.21		0.0	
MW-22											
Weekly	442.16	4/8/2015	NE	43.58	NA	NA	NA	398.58	404.28 - 394.28 (37.88 - 47.88)	42.9	
		4/13/2015	NE	44.64	NA	NA	NA	397.52		0.0	
		4/21/2015	NE	43.59	NA	NA	NA	398.57		0.0	
		4/28/2015	NE	43.61	NA	NA	NA	398.55		0.0	
		5/4/2015	NE	43.51	NA	NA	NA	398.65		0.1	
		5/11/2015	NE	43.48	NA	NA	NA	398.68		0.0	
Monthly		5/14/2015	NE	43.51	NA	NA	NA	398.65		0.0	
Weekly		5/18/2015	NE	43.53	NA	NA	NA	398.63		0.0	
		5/26/2015	NM	NM	NA	NA	NA	NA		NM	
Monthly		6/1/2015	NE	43.50	NA	NA	NA	398.66		0.0	
Weekly		6/8/2015	NE	43.37	NA	NA	NA	398.79		0.0	
		6/16/2015	NE	43.36	NA	NA	NA	398.80		0.0	
		6/23/2015	NE	43.23	NA	NA	NA	398.93		0.0	
		6/29/2015	NE	43.15	NA	NA	NA	399.01		0.0	
MW-23											
Monthly	431.41	5/4/2015	NE	32.02	NA	NA	NA	399.39	402.39 - 392.39 (29.02 - 39.02)	0.0	
		6/2/2015	NE	31.94	NA	NA	NA	399.47		7.1	
MW-24											
Monthly	443.42	5/14/2015	NE	44.47	NA	NA	NA	398.95	404.53 - 394.53 (38.89 - 48.89)	4.7	
		6/2/2015	NE	44.43	NA	NA	NA	398.99		0.0	
MW-25											
Monthly	438.35	5/14/2015	NE	39.65	NA	NA	NA	398.70	402.76 - 392.76 (35.59 - 45.59)	0.4	
		6/2/2015	NE	39.63	NA	NA	NA	398.72		0.0	
MW-26											
Monthly	441.02	5/14/2015	NE	42.45	NA	NA	NA	398.57	402.87 - 392.87 (38.15 - 48.15)	69.3	
		6/2/2015	NE	42.46	NA	NA	NA	398.56		100.4	
MW-27											
Monthly	443.40	5/15/2015	NE	43.52	NA	NA	NA	399.88	403.61 - 393.61 (39.79 - 49.79)	0.0	
		6/1/2015	NE	43.52	NA	NA	NA	399.88		3.4	
MW-28											
Monthly	443.34	5/14/2015	NE	42.56	NA	NA	NA	400.78	409.73 - 399.73 (33.61 - 43.61)	0.0	
		6/1/2015	NE	42.65	NA	NA	NA	400.69		0.0	
P-54											
Monthly	442.32	5/14/2015	NE	43.12	NA	NA	NA	399.20	404.32 - 379.32 (38.00 - 63.00)	0.0	
		6/2/2015	NE	43.09	NA	NA	NA	399.23		0.0	
P-55											
Weekly	443.79	4/8/2015	44.55	44.70	399.09	399.24	0.15	399.21	403.36 - 393.36 (40.43 - 50.43)	103.4	
		4/13/2015	44.64	44.77	399.02	399.15	0.13	399.12		91.5	
		4/21/2015	44.62	44.71	399.08	399.17	0.09	399.15		122.6	
		4/27/2015	44.47	44.62	399.17	399.32	0.15	399.29		0.2	
		5/5/2015	44.62	44.66	399.13	399.17	0.04	399.16		1.6	
		5/11/2015	44.54	44.64	399.15	399.25	0.10	399.23		64.5	
Monthly		5/15/2015	44.54	44.61	399.18	399.25	0.07	399.24		90.1	
Weekly		5/18/2015	44.59	44.67	399.12	399.20	0.08	399.18		53.7	
		5/26/2015	44.44	44.59	399.20	399.35	0.15	399.32		139.6	
Monthly		6/1/2015	44.53	44.65	399.14	399.26	0.12	399.24		166.8	
Weekly		6/8/2015	44.44	44.51	399.28	399.35	0.07	399.34		136.0	
		6/16/2015	44.38	44.47	399.32	399.41	0.09	399.39		86.8	
		6/22/2015	44.25	44.41	399.38	399.54	0.16	399.51		75.8	
		6/29/2015	44.27	44.32	399.47	399.52	0.05	399.51		185.0	
P-56											
Monthly	446.14	5/15/2015	NE	47.94	NA	NA	NA	398.20	405.32 - 380.32 (40.82 - 65.82)	0.0	
		6/1/2015	NE	47.98	NA	NA	NA	398.16		0.0	
P-57											
Monthly	446.96	5/15/2015	NE	48.78	NA	NA	NA	398.18	402.77 - 392.77 (44.19 - 54.19)	0.0	
		6/1/2015	NE	48.85	NA	NA	NA	398.11		0.0	
P-58											
Monthly	444.94	5/15/2015	NE	46.64	NA	NA	NA	398.30	404.73 - 379.73 (40.21 - 65.21)	0.0	
		6/1/2015	NE	46.75	NA	NA	NA	398.19		0.0	
P-59											
Monthly	446.86	5/15/2015	NE	48.73	NA	NA	NA	398.13	398.95 - 373.95 (47.91 - 72.91)	3.9	
		6/1/2015	NE	48.78	NA	NA	NA	398.08		0.0	

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 1b
WEEKLY/MONTHLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & EVENT	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
P-60											
		4/8/2015	48.04	48.08	398.61	398.65	0.04	398.64		69.6	
Weekly		4/13/2015	48.11	48.16	398.53	398.58	0.05	398.57		30.3	
		4/21/2015	48.04	48.28	398.41	398.65	0.24	398.60		395.5	
		4/27/2015	47.73	48.51	398.18	398.96	0.78	398.80		0.2	
		5/5/2015	47.92	48.37	398.32	398.77	0.45	398.68		3.7	
		5/11/2015	47.83	48.52	398.17	398.86	0.69	398.72		379.0	
Monthly	446.69	5/15/2015	47.77	47.79	398.90	398.92	0.02	398.92	403.24 - 383.24	441.8	
Weekly		5/18/2015	47.74	48.96	397.73	398.95	1.22	398.71	(43.45 - 63.45)	375.0	
		5/26/2015	47.43	49.22	397.47	399.26	1.79	398.90		342.0	
Monthly		6/1/2015	47.62	49.17	397.52	399.07	1.55	398.76		412.6	
		6/8/2015	47.59	48.81	397.88	399.10	1.22	398.86		399.4	
Weekly		6/16/2015	47.57	48.66	398.03	399.12	1.09	398.90		375.0	
		6/22/2015	47.59	48.26	398.43	399.10	0.67	398.97		423.7	
		6/29/2015	47.72	47.90	398.79	398.97	0.18	398.93		256.3	
P-60-11											
Monthly	446.26	5/15/2015	NE	46.49	NA	NA	NA	399.77	413.11 - 383.11	0.5	
		6/1/2015	NE	46.51	NA	NA	NA	399.75	(33.15 - 63.15)	0.0	
P-60-12											
Monthly	443.43	5/15/2015	NE	44.81	NA	NA	NA	398.62	383.43 - 373.43	104.5	*
		6/1/2015	NE	44.82	NA	NA	NA	398.61	(60.00 - 70.00)	28.0	*
P-60-12S (PERCHED)											
Monthly	443.43	5/15/2015	NE	NE	NA	NA	NA	NA	429.59 - 419.59	0.1	
		6/1/2015	NE		NA	NA	NA	NA	(13.84 - 23.84)	0.9	
P-60-13											
Monthly	442.92	5/15/2015	NE	41.58	NA	NA	NA	401.34	402.92 - 382.92	0.1	
		6/1/2015	NE	41.38	NA	NA	NA	401.54	(40.00 - 60.00)	1.5	
P-60-13S (PERCHED)											
Monthly	442.90	5/15/2015	NE	17.37	NA	NA	NA	425.53	432.90 - 422.90	0.0	
		6/1/2015	NE	17.49	NA	NA	NA	425.41	(10.00 - 20.00)	1.9	
P-60-S											
		4/8/2015	46.61	47.28	399.56	400.23	0.67	400.10		16.4	
Weekly		4/13/2015	46.38	47.21	399.63	400.46	0.83	400.29		0.1	
		4/21/2015	46.83	47.34	399.50	400.01	0.51	399.91		0.0	
		4/27/2015	46.85	47.24	399.60	399.99	0.39	399.91		0.2	
		5/5/2015	47.02	47.16	399.68	399.82	0.14	399.79		0.3	
		5/11/2015	46.98	47.15	399.69	399.86	0.17	399.83		0.4	
Monthly	446.84	5/15/2015	NE	46.95	NA	NA	NA	399.89	410.36 - 395.36	0.2	
Weekly		5/18/2015	47.02	47.16	399.68	399.82	0.14	399.79	(36.48 - 51.48)	6.3	
		5/26/2015	46.92	46.94	399.90	399.92	0.02	399.92		0.6	
Monthly		6/1/2015	47.03	47.25	399.59	399.81	0.22	399.77		0.4	
		6/8/2015	46.99	47.11	399.73	399.85	0.12	399.83		4.4	
Weekly		6/16/2015	47.04	47.07	399.77	399.80	0.03	399.79		0.9	
		6/22/2015	46.92	46.96	399.88	399.92	0.04	399.91		3.6	
		6/29/2015	46.90	46.94	399.90	399.94	0.04	399.93		1.8	
P-66											
Monthly	436.81	5/15/2015	NE	38.14	NA	NA	NA	398.67	402.09 - 377.09	0.0	
		6/1/2015	NE	38.23	NA	NA	NA	398.58	(34.72 - 59.72)	0.1	
P-68											
		4/8/2015	46.50	46.59	398.59	398.68	0.09	398.66		240.1	
Weekly		4/13/2015	46.52	46.61	398.57	398.66	0.09	398.64		4.1	
		4/21/2015	46.51	46.56	398.62	398.67	0.05	398.66		6.3	
		4/27/2015	46.55	46.62	398.56	398.63	0.07	398.62		0.4	
		5/5/2015	NE	46.51	NA	NA	NA	398.67		0.5	
		5/11/2015	46.41	46.48	398.70	398.77	0.07	398.76		13.7	
Monthly	445.18	5/15/2015	NE	46.39	NA	NA	NA	398.79	399.92 - 374.92	2.9	
Weekly		5/18/2015	46.49	46.50	398.68	398.69	0.01	398.69	(45.26 - 70.26)	1.9	
		5/26/2015	46.33	46.38	398.80	398.85	0.05	398.84		7.7	
Monthly		6/1/2015	46.47	46.54	398.64	398.71	0.07	398.70		114.7	
		6/8/2015	46.43	46.51	398.67	398.75	0.08	398.73		79.6	
Weekly		6/16/2015	46.45	46.53	398.65	398.73	0.08	398.71		2.5	
		6/22/2015	46.38	46.44	398.74	398.8	0.06	398.79		193.4	
		6/29/2015	46.42	46.49	398.69	398.76	0.07	398.75		163.7	
P-74											
Monthly	442.72	5/15/2015	NE	44.72	NA	NA	NA	398.00	398.29 - 373.29	0.0	
		6/1/2015	NE	44.76	NA	NA	NA	397.96	(44.43 - 69.43)	0.2	
P-93A											
Monthly	445.12	5/15/2015	NE	46.93	NA	NA	NA	398.19	402.05 - 392.05	0.0	
		6/1/2015	NE	47.08	NA	NA	NA	398.04	(43.07 - 53.07)	0.0	
P-93B											
Monthly	446.52	5/15/2015	NE	48.58	NA	NA	NA	397.94	371.92 - 369.92	0.9	*
		6/1/2015	NE	48.56	NA	NA	NA	397.96	(74.60 - 76.60)	1.1	*
P-93C											
Monthly	446.28	5/15/2015	NE	48.13	NA	NA	NA	398.15	353.81 - 348.81	11.2	*
		6/1/2015	NE	48.22	NA	NA	NA	398.06	(92.47 - 97.47)	0.3	*

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 1b
WEEKLY/MONTHLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & EVENT	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
P-93D											
Monthly	446.73	5/15/2015	NE	48.56	NA	NA	NA	398.17	320.98 - 318.98 (125.75 - 127.75)	1.3	*
		6/1/2015	NE	48.64	NA	NA	NA	398.09		0.6	*
GP-9-PZ											
Monthly	442.56	5/15/2015	NE	44.11	NA	NA	NA	398.45	404.96 - 394.96 (37.60 - 47.60)	0.0	
		6/1/2015	NE	44.14	NA	NA	NA	398.42		0.0	
ROST-3-MW											
Weekly	442.29	4/8/2015	NE	43.28	NA	NA	NA	399.01	404.48 - 394.48 (37.81 - 47.81)	152.2	
		4/13/2015	NE	43.43	NA	NA	NA	398.86		0.0	
		4/21/2015	NE	43.29	NA	NA	NA	399.00		0.0	
		4/28/2015	NE	43.30	NA	NA	NA	398.99		0.0	
		5/4/2015	NE	43.28	NA	NA	NA	399.01		0.1	
		5/11/2015	NE	43.22	NA	NA	NA	399.07		0.1	
Monthly		5/14/2015	NE	43.22	NA	NA	NA	399.07		0.6	
Weekly		5/18/2015	NE	43.23	NA	NA	NA	399.06		2.0	
		5/26/2015	NE	43.16	NA	NA	NA	399.13		0.0	
Monthly		6/2/2015	NE	43.22	NA	NA	NA	399.07		0.0	
Weekly		6/8/2015	NE	43.09	NA	NA	NA	399.20		0.0	
		6/16/2015	NE	43.06	NA	NA	NA	399.23		0.0	
		6/23/2015	NE	43.02	NA	NA	NA	399.27		0.0	
		6/29/2015	NE	42.88	NA	NA	NA	399.41		0.0	
ROST-4-PZ											
Weekly	442.13	4/8/2015	NE	41.92	NA	NA	NA	400.21	407.20 - 397.20 (34.93 - 44.93)	1.8	
		4/13/2015	NE	41.99	NA	NA	NA	400.14		0.1	
		4/21/2015	NE	42.02	NA	NA	NA	400.11		32.2	
		4/28/2015	NE	42.08	NA	NA	NA	400.05		0.3	
		5/4/2015	NE	42.06	NA	NA	NA	400.07		0.0	
		5/11/2015	NE	42.08	NA	NA	NA	400.05		0.1	
Monthly		5/14/2015	NE	42.08	NA	NA	NA	400.05		22.4	
Weekly		5/18/2015	NE	42.10	NA	NA	NA	400.03		0.3	
		5/26/2015	NE	42.11	NA	NA	NA	400.02		0.7	
Monthly		6/2/2015	NE	42.16	NA	NA	NA	399.97		0.0	
Weekly		6/8/2015	NE	42.08	NA	NA	NA	400.05		1.7	
		6/16/2015	NE	42.08	NA	NA	NA	400.05		0.0	
		6/23/2015	NE	42.06	NA	NA	NA	400.07		0.0	
		6/29/2015	NE	41.99	NA	NA	NA	400.14		0.0	
ROST-4-PZ(A)											
Weekly	442.11	4/8/2015	NE	42.68	NA	NA	NA	399.43	407.34 - 397.34 (34.77 - 44.77)	0.3	
		4/13/2015	NE	42.70	NA	NA	NA	399.41		0.3	
		4/21/2015	NE	42.66	NA	NA	NA	399.45		0.2	
		4/28/2015	NE	42.68	NA	NA	NA	399.43		0.0	
		5/4/2015	NM	NM	NA	NA	NA	NA		NM	
		5/11/2015	NE	42.55	NA	NA	NA	399.56		0.0	
Monthly		5/15/2015	NE	42.54	NA	NA	NA	399.57		1.8	
Weekly		5/18/2015	NE	42.59	NA	NA	NA	399.52		0.2	
		5/26/2015	NE	42.44	NA	NA	NA	399.67		0.0	
Monthly		6/1/2015	NE	42.58	NA	NA	NA	399.53		0.0	
Weekly		6/8/2015	NE	42.45	NA	NA	NA	399.66		1.3	
		6/16/2015	NE	42.54	NA	NA	NA	399.57		0.0	
		6/23/2015	NE	43.44	NA	NA	NA	398.67		0.2	
		6/29/2015	NE	42.25	NA	NA	NA	399.86		0.5	
ROST-4-PZ(B)											
Weekly	442.38	4/8/2015	NE	42.46	NA	NA	NA	399.92	407.33 - 397.33 (35.05 - 45.05)	0.3	
		4/13/2015	NE	42.51	NA	NA	NA	399.87		0.0	
		4/21/2015	NE	42.51	NA	NA	NA	399.87		0.0	
		4/28/2015	NE	42.57	NA	NA	NA	399.81		0.1	
		5/4/2015	NM	NM	NA	NA	NA	NA		NM	
		5/11/2015	NE	42.49	NA	NA	NA	399.89		0.6	
Monthly		5/15/2015	NE	42.51	NA	NA	NA	399.87		1.4	
Weekly		5/18/2015	NE	42.53	NA	NA	NA	399.85		0.0	
		5/26/2015	NE	42.43	NA	NA	NA	399.95		0.0	
Monthly		6/1/2015	NE	42.48	NA	NA	NA	399.90		0.5	
Weekly		6/8/2015	NE	42.36	NA	NA	NA	400.02		0.0	
		6/16/2015	NE	42.35	NA	NA	NA	400.03		0.0	
		6/23/2015	NE	42.23	NA	NA	NA	400.15		0.3	
		6/29/2015	NE	42.04	NA	NA	NA	400.34		0.1	

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 1b
WEEKLY/MONTHLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & EVENT	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
ROST-4-PZ(C)											
Weekly	442.66	4/8/2015	NE	42.95	NA	NA	NA	399.71	407.71 - 397.71 (34.95 - 44.95)	7.4	
		4/13/2015	NE	43.00	NA	NA	NA	399.66		0.0	
		4/21/2015	NE	43.06	NA	NA	NA	399.60		0.4	
		4/28/2015	NE	43.13	NA	NA	NA	399.53		0.0	
		5/4/2015	NE	43.15	NA	NA	NA	399.51		0.1	
		5/11/2015	NE	43.14	NA	NA	NA	399.52		0.0	
Monthly		5/14/2015	NE	43.08	NA	NA	NA	399.58		0.4	
Weekly		5/18/2015	NE	43.13	NA	NA	NA	399.53		0.0	
		5/26/2015	NE	43.07	NA	NA	NA	399.59		0.0	
Monthly		6/2/2015	NE	43.15	NA	NA	NA	399.51		0.0	
Weekly		6/8/2015	NE	43.06	NA	NA	NA	399.60		0.0	
		6/16/2015	NE	43.04	NA	NA	NA	399.62		0.0	
		6/23/2015	NE	43.00	NA	NA	NA	399.66		0.0	
		6/29/2015	NE	42.92	NA	NA	NA	399.74		0.0	
ROST-4-PZ(D)											
Weekly	442.98	4/8/2015	42.68	42.85	400.13	400.30	0.17	400.27	408.01 - 398.01 (34.97 - 44.97)	11.2	
		4/13/2015	42.81	43.03	399.95	400.17	0.22	400.13		0.0	
		4/21/2015	42.88	42.95	400.03	400.10	0.07	400.09		0.0	
		4/28/2015	42.90	42.98	400.00	400.08	0.08	400.06		1.5	
		5/4/2015	42.88	42.98	400.00	400.10	0.10	400.08		0.0	
		5/11/2015	42.94	43.04	399.94	400.04	0.10	400.02		4.6	
Monthly		5/14/2015	NE	42.90	NA	NA	NA	400.08		0.0	
Weekly		5/18/2015	NE	42.98	NA	NA	NA	400.00		0.0	
		5/26/2015	NE	42.94	NA	NA	NA	400.04		0.0	
Monthly		6/2/2015	NE	42.97	NA	NA	NA	400.01		0.0	
Weekly		6/8/2015	NE	42.89	NA	NA	NA	400.09		1.1	
		6/16/2015	NE	42.89	NA	NA	NA	400.09		0.0	
		6/23/2015	NE	42.88	NA	NA	NA	400.10		0.2	
		6/29/2015	NE	42.76	NA	NA	NA	400.22		0.2	
ROST-4-PZ(E)											
Weekly	441.96	4/8/2015	NE	41.38	NA	NA	NA	400.58	407.21 - 397.21 (34.75 - 44.75)	2.4	
		4/13/2015	NE	41.61	NA	NA	NA	400.35		0.0	
		4/21/2015	NE	41.58	NA	NA	NA	400.38		8.7	
		4/28/2015	NE	41.69	NA	NA	NA	400.27		0.2	
		5/4/2015	NE	41.73	NA	NA	NA	400.23		0.0	
		5/11/2015	NE	41.90	NA	NA	NA	400.06		0.0	
Monthly		5/14/2015	NE	41.86	NA	NA	NA	400.10		0.0	
Weekly		5/18/2015	41.85	41.91	400.05	400.11	0.06	400.10		0.3	
		5/26/2015	41.67	41.74	400.22	400.29	0.07	400.28		0.0	
Monthly		6/2/2015	41.81	41.87	400.09	400.15	0.06	400.14		0.1	
Weekly		6/8/2015	41.71	41.75	400.21	400.25	0.04	400.24		0.0	
		6/16/2015	41.77	41.80	400.16	400.19	0.03	400.18		0.0	
		6/23/2015	41.70	41.74	400.22	400.26	0.04	400.25		0.7	
		6/29/2015	41.55	41.57	400.39	400.41	0.02	400.41		0.0	
ROST-4-PZ(F)											
Weekly	442.12	4/8/2015	NE	40.57	NA	NA	NA	401.55	407.59 - 397.59 (34.53 - 44.53)	0.4	
		4/13/2015	NE	40.64	NA	NA	NA	401.48		0.0	
		4/21/2015	NE	40.62	NA	NA	NA	401.50		0.0	
		4/28/2015	NE	40.63	NA	NA	NA	401.49		0.0	
		5/4/2015	NE	40.67	NA	NA	NA	401.45		0.0	
		5/11/2015	NE	40.74	NA	NA	NA	401.38		0.0	
Monthly		5/14/2015	NE	40.71	NA	NA	NA	401.41		0.0	
Weekly		5/18/2015	NE	40.75	NA	NA	NA	401.37		1.2	
		5/26/2015	NE	40.75	NA	NA	NA	401.37		0.0	
Monthly		6/2/2015	NE	40.82	NA	NA	NA	401.30		0.0	
Weekly		6/8/2015	NE	40.82	NA	NA	NA	401.30		0.2	
		6/16/2015	NE	40.80	NA	NA	NA	401.32		2.1	
		6/23/2015	NE	40.83	NA	NA	NA	401.29		0.0	
		6/29/2015	NE	40.76	NA	NA	NA	401.36		0.0	
ROST-4-PZ(G)											
Weekly	442.13	4/8/2015	NE	43.40	NA	NA	NA	398.73	407.85 - 397.85 (34.28 - 44.28)	0.3	
		4/13/2015	NE	43.46	NA	NA	NA	398.67		0.3	
		4/21/2015	NE	43.35	NA	NA	NA	398.78		0.0	
		4/28/2015	NE	43.36	NA	NA	NA	398.77		0.0	
		5/4/2015	NE	43.27	NA	NA	NA	398.86		0.0	
		5/11/2015	NE	43.27	NA	NA	NA	398.86		0.0	
Monthly		5/14/2015	NE	43.35	NA	NA	NA	398.78		0.0	
Weekly		5/18/2015	NE	43.31	NA	NA	NA	398.82		0.0	
		5/26/2015	NE	43.23	NA	NA	NA	398.90		1.0	
Monthly		6/2/2015	NE	43.27	NA	NA	NA	398.86		0.0	
Weekly		6/8/2015	NE	43.15	NA	NA	NA	398.98		0.0	
		6/16/2015	NE	43.15	NA	NA	NA	398.98		0.0	
		6/23/2015	NE	43.07	NA	NA	NA	399.06		0.0	
		6/29/2015	NE	42.97	NA	NA	NA	399.16		0.0	

TABLE 1b
WEEKLY/MONTHLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & EVENT	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	WELL HEAD PID[3] (ppm)	COMMENTS
ROST-5-PZ (PERCHED)											
Monthly	442.22	5/14/2015	NE	NE	NA	NA	NA	NA	429.02 - 419.02 (13.20 - 23.20)	3.8	Well Dry
		6/2/2015	NE	NE	NA	NA	NA	NA		0.3	Well Dry
ROST-7-PZ (PERCHED)											
Monthly	442.19	5/14/2015	NE	20.74	NA	NA	NA	421.45	422.19 - 412.19 (20.00 - 30.00)	0.0	
		6/1/2015	NE	19.70	NA	NA	NA	422.49		0.1	*
ROST-10-PZ (PERCHED)											
Monthly	444.51	5/15/2015	NE	NE	NA	NA	NA	NA	434.51 - 424.51 (10.00 - 20.00)	0.2	Well Dry
		6/2/2015	NE	NE	NA	NA	NA	NA		0.0	Well Dry
ROST-21-PZ (PERCHED)											
Monthly	443.72	5/14/2015	NE	18.91	NA	NA	NA	424.81	433.72 - 423.72 (10.00 - 20.00)	5.1	
		6/2/2015	NE	19.12	NA	NA	NA	424.60		1.0	
T-12											
Monthly	444.80	5/15/2015	NE	46.59	NA	NA	NA	398.21	398.34 - 372.34 (46.46 - 72.46)	2.1	
		6/1/2015	NE	46.63	NA	NA	NA	398.17		4.0	
PZ-1-85											
Monthly	445.48	5/14/2015	NE	45.72	NA	NA	NA	399.76	369.70 - 359.70 (75.78 - 85.78)	10.9	*
		6/1/2015	NE	45.71	NA	NA	NA	399.77		5.3	*
PZ-1-101											
Monthly	445.49	5/14/2015	NE	45.59	NA	NA	NA	399.90	354.52 - 344.52 (90.97 - 100.97)	0.1	*
		6/1/2015	NE	45.58	NA	NA	NA	399.91		1.0	*
PZ-2-70.5											
Monthly	443.06	5/15/2015	NE	44.10	NA	NA	NA	398.96	382.65 - 372.65 (60.41 - 70.41)	97.5	*
		6/2/2015	NE	44.12	NA	NA	NA	398.94		43.8	*
PZ-2-84											
Monthly	443.00	5/15/2015	NE	43.97	NA	NA	NA	399.03	371.12 - 359.12 (71.88 - 83.88)	95.0	*
		6/2/2015	NE	44.00	NA	NA	NA	399.00		133.5	*

NOTES:
1) Elevations presented in this table are relative to the 1988 USGS datum.
2) The Corrected W.L. 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) 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.

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 2a
SUMMARY OF MAIN AQUIFER GROUNDWATER MONITORING WELL FIELD PARAMETERS

Well ID	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
MW-01							
3Q12	6.65	20.03	0.997	2.01	0.09	29	
4Q12	6.63	18.38	*	5.10	0.00	47	Initial Sample
	7.64	17.47	1.226	6.88	0.00	-12	Confirmation Sample
1Q13	6.73	18.14	*	8.16	0.20	0	
2Q13	6.70	18.71	1.096	7.39	0.01	-117	
3Q13	6.76	19.26	1.068	28.82	0.90	-35	
4Q13	6.71	19.07	1.332	9.26	0.00	-27	
1Q14	6.77	18.29	1.203	9.97	0.00	-3	
2Q14	6.73	18.29	1.145	4.81	0.07	20	
3Q14	6.76	19.63	1.799	7.12	0.00	-59	
4Q14	6.77	18.93	1.170	8.10	0.02	-36	
1Q15	6.75	17.35	1.127	18.42	0.04	-49	
2Q15	6.78	18.34	1.130	0.59	0.08	-68	
MW-02							
3Q12	6.66	20.80	1.082	4.01	0.00	-26	
4Q12	6.61	18.86	*	6.41	0.00	-37	
1Q13	6.67	18.53	*	12.39	0.05	0	
2Q13	6.64	20.21	1.204	7.15	0.01	-159	
3Q13	6.76	21.55	1.320	9.69	0.00	-105	
4Q13	6.72	20.79	1.279	5.91	0.00	-99	
1Q14	6.61	19.24	1.256	17.36	0.03	-107	
2Q14	6.68	20.81	1.280	16.03	0.09	-105	
3Q14	6.74	21.58	*	8.24	0.00	-99	
4Q14	6.67	20.16	1.438	5.95	0.00	-116	
1Q15	6.80	19.08	1.486	4.72	0.02	-146	
2Q15	6.86	20.39	1.390	0.00	0.07	-115	
MW-03							
3Q12	6.63	20.63	1.255	1.18	0.03	-67	
4Q12	6.80	20.10	*	1.81	0.00	-61	
1Q13	6.88	19.17	1.333	2.67	0.01	-243	
2Q13	6.92	19.83	1.078	2.64	0.02	-207	
3Q13	6.99	20.05	1.084	8.73	0.00	-143	
4Q13	6.93	19.92	1.402	9.94	0.00	-123	
1Q14	6.90	18.04	1.689	8.24	0.01	-125	
2Q14	6.85	19.35	1.267	1.91	0.64	-137	
3Q14	6.95	20.06	*	8.43	0.00	-134	
4Q14	6.92	18.95	1.352	3.87	0.00	-142	
1Q15	7.02	16.89	1.153	7.82	0.00	-152	
2Q15	6.94	19.39	1.542	0.87	0.02	-140	
MW-04							
3Q12	6.60	19.94	1.137	9.69	0.00	-82	
4Q12	6.78	19.13	*	8.68	0.00	-66	
1Q13	6.83	18.75	*	25.45	0.21	-113	Initial Sample
	7.26	18.37	1.296	6.07	0.04	-108	Confirmation Sample
2Q13	6.81	19.74	1.283	8.50	0.00	-151	
3Q13	6.76	20.36	1.481	8.03	0.00	-105	
4Q13	6.79	18.67	1.505	8.67	0.00	-103	
1Q14	6.84	17.90	1.457	9.36	0.00	-113	
2Q14	6.81	18.59	1.434	7.85	0.00	-99	
3Q14	6.85	19.57	*	8.29	0.00	-116	
4Q14	6.86	18.96	1.315	9.22	0.00	-120	
1Q15	6.92	18.28	1.177	28.46	0.03	-110	
2Q15	7.02	18.60	1.660	16.36	0.00	-77	

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 2a
SUMMARY OF MAIN AQUIFER GROUNDWATER MONITORING WELL FIELD PARAMETERS

Well ID	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
MW-05							
3Q12	6.78	22.92	0.856	8.64	0.00	-120	
4Q12	6.79	18.67	*	8.72	0.00	-67	
1Q13	6.83	19.18	*	11.85	0.04	-124	
2Q13	6.79	19.64	1.010	8.72	0.00	-166	
3Q13	6.85	20.57	1.113	12.87	0.00	-129	
4Q13	6.86	19.97	1.115	9.55	0.00	-114	
1Q14	6.82	17.75	1.142	28.73	0.00	-119	
2Q14	6.77	20.42	1.165	8.64	0.00	-126	
3Q14	6.79	19.91	*	9.32	0.00	-118	
4Q14	6.83	19.07	1.209	18.04	0.00	-125	
1Q15	6.90	17.89	1.222	17.31	0.00	-132	
2Q15	6.77	19.24	1.410	0.00	0.03	-128	
MW-06A							
3Q12	6.56	20.14	1.098	1.46	0.00	-37	
4Q12	6.65	19.52	*	8.32	0.00	-57	
1Q13	7.00	20.21	0.690	20.50	0.02	-132	
2Q13	6.84	18.96	0.848	7.09	0.00	-255	
3Q13	6.77	20.15	0.928	9.62	0.00	-128	
4Q13	6.67	19.52	1.339	9.08	0.00	-116	
1Q14	6.72	17.88	1.418	8.64	0.00	-114	
2Q14	6.58	19.29	1.852	9.74	0.05	-128	
3Q14	6.69	19.70	*	7.30	0.00	-114	
4Q14	6.69	19.14	1.594	24.72	0.02	-123	
1Q15	6.72	17.00	1.698	151.20	0.00	-117	
2Q15	6.78	18.57	1.548	8.35	0.07	-108	
MW-06B							
3Q12	6.80	20.81	1.437	5.88	0.00	-42	
4Q12	6.89	19.49	*	7.40	0.00	-34	
1Q13	6.82	18.11	1.127	7.34	0.00	-79	
2Q13	6.80	18.21	1.557	1.11	0.04	-132	
3Q13	6.92	19.68	1.210	9.92	0.19	-85	
4Q13	6.89	18.56	1.424	7.08	0.00	-88	
1Q14	6.96	17.14	1.221	17.54	0.01	-88	
2Q14	6.93	18.42	1.203	1.60	0.14	-117	
3Q14	6.92	19.60	*	9.10	0.00	-89	
4Q14	6.93	18.62	1.235	9.83	0.09	-94	
1Q15	6.99	16.50	1.150	9.27	0.02	-114	
2Q15	6.98	18.06	1.204	9.72	0.09	-86	
MW-06C							
3Q12	6.92	20.05	1.036	2.16	0.00	-55	
4Q12	6.94	19.04	*	0.51	0.00	-63	
1Q13	6.94	17.60	0.828	6.48	0.01	-103	
2Q13	7.70	4.91	1.051	4.91	0.05	-178	
3Q13	7.03	19.24	1.050	6.30	0.10	-124	
4Q13	6.99	17.83	1.168	8.60	0.00	-122	
1Q14	7.03	17.02	1.153	6.78	0.00	-118	
2Q14	7.01	17.94	1.102	11.44	0.17	-136	
3Q14	7.08	18.97	*	4.81	0.00	-125	
4Q14	7.07	18.22	1.040	8.88	0.06	-128	
1Q15	7.08	16.29	0.970	7.72	0.02	-133	
2Q15	7.13	18.33	0.953	3.49	0.06	-131	
MW-06D							
3Q12	6.43	20.56	1.030	1.05	0.04	-41	
4Q12	7.03	19.07	*	5.16	0.00	-61	
1Q13	7.07	17.15	0.929	6.69	0.00	-116	
2Q13	8.27	18.20	1.131	7.93	0.00	-172	
3Q13	7.04	18.60	1.373	8.93	0.00	-134	
4Q13	6.98	17.47	1.611	8.40	0.00	-124	
1Q14	7.08	16.88	1.424	6.80	0.00	-127	
2Q14	7.05	17.34	1.424	8.46	0.06	-147	
3Q14	7.01	18.57	*	18.02	0.00	-135	
4Q14	7.04	17.79	1.633	9.39	0.04	-142	
1Q15	7.02	16.32	1.464	93.69	0.00	-139	
2Q15	7.10	17.49	1.270	12.27	0.06	-12	

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 2a
SUMMARY OF MAIN AQUIFER GROUNDWATER MONITORING WELL FIELD PARAMETERS

Well ID	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
MW-07							
3Q12	6.69	21.88	1.062	1.69	0.03	-69	
4Q12	6.75	18.34	*	6.24	0.17	-15	
1Q13	6.90	18.28	1.056	8.57	0.00	-91	
2Q13	6.86	19.35	1.123	3.37	0.07	-148	
3Q13	6.76	19.76	1.254	21.67	0.09	-91	
4Q13	6.78	18.89	1.442	9.42	0.05	-76	
1Q14	6.88	18.24	1.569	9.44	0.22	-151	
2Q14	6.87	18.98	1.610	8.87	0.07	-89	
3Q14	6.83	20.22	*	9.55	0.05	-93	
4Q14	6.86	19.78	1.606	9.88	0.00	-104	
1Q15	6.91	17.63	1.789	6.77	0.03	-72	
2Q15	6.97	19.00	2.848	8.22	0.06	-64	
MW-08							
3Q12	6.46	21.97	1.299	7.27	0.00	17	Well was resampled on 08/07/12.
4Q12	6.52	17.81	*	5.83	0.12	0	
1Q13	6.58	17.83	0.863	9.84	0.00	-56	
2Q13	6.50	19.71	0.890	7.19	0.05	-124	
3Q13	6.57	19.86	2.092	8.65	0.07	-60	
4Q13	6.52	18.42	2.225	8.90	0.00	-46	
1Q14	6.59	18.12	1.741	8.77	0.11	-130	
2Q14	6.56	18.82	1.777	9.15	0.02	-65	
3Q14	6.72	19.81	*	8.40	0.00	-95	
4Q14	6.76	19.31	1.772	9.39	0.00	-89	
1Q15	6.70	17.67	1.658	9.76	0.00	-84	
2Q15	6.81	19.46	2.652	6.05	0.05	-62	
MW-09							
3Q12	6.67	19.87	1.127	8.71	0.01	-39	
4Q12	6.69	17.19	*	5.51	0.00	-10	
1Q13	6.73	17.96	1.367	25.29	0.00	-111	
2Q13	6.69	18.01	1.126	9.51	0.00	-125	
3Q13	6.75	18.84	1.213	9.52	0.13	-76	
4Q13	6.71	18.47	1.440	7.91	0.00	-91	
1Q14	6.82	17.06	1.322	0.19	0.02	-54	
2Q14	6.75	17.34	1.273	1.20	0.42	-48	
3Q14	6.75	19.67	*	7.03	0.11	-67	
4Q14	6.73	18.98	1.408	8.14	0.20	-58	
1Q15	6.72	16.83	1.377	4.68	0.01	-59	
2Q15	6.73	18.21	1.421	1.59	0.04	-82	
MW-10							
3Q12	6.87	21.46	0.623	2.57	0.02	-90	
4Q12	6.78	17.36	*	7.57	0.00	-20	Initial Sample
	7.61	17.42	1.222	6.93	0.00	-126	Confirmation Sample
1Q13	6.89	18.36	1.082	9.43	0.00	-173	Initial Sample
	6.88	16.98	*	8.89	0.04	-101	Confirmation Sample
2Q13	6.78	18.85	1.210	8.71	0.02	-260	
3Q13	6.90	20.11	1.360	9.57	0.02	-127	
4Q13	6.92	19.56	1.373	8.91	0.00	-129	
1Q14	6.85	17.17	1.632	9.92	0.01	-124	
2Q14	6.83	17.96	1.734	9.43	0.06	-162	
3Q14	6.89	19.54	*	7.27	0.00	-123	
4Q14	6.83	19.57	1.849	9.85	0.05	-121	
1Q15	6.84	15.93	1.465	15.33	0.14	-110	
2Q15	6.86	18.48	1.825	7.06	0.08	-102	

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 2a
SUMMARY OF MAIN AQUIFER GROUNDWATER MONITORING WELL FIELD PARAMETERS

Well ID	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
MW-11							
3Q12	6.67	21.27	1.158	1.15	0.06	-69	
4Q12	6.68	18.82	*	8.44	0.00	-41	
1Q13	6.76	17.64	1.586	1.94	0.00	-179	
2Q13	6.75	18.16	1.313	5.58	0.01	-310	
3Q13	6.78	19.55	1.336	10.06	0.08	-94	
4Q13	6.73	17.76	1.676	9.66	0.00	-98	
1Q14	6.77	16.61	1.587	9.79	0.02	-100	
2Q14	6.74	17.19	1.677	9.63	0.08	-116	
3Q14	6.78	19.16	*	7.69	0.01	-99	
4Q14	6.76	18.19	1.553	12.87	0.00	-121	
1Q15	6.68	15.59	1.604	17.97	0.01	-85	
2Q15	6.79	17.63	1.442	9.62	0.11	-84	
MW-12							
3Q12	6.78	20.11	0.912	2.66	0.03	4	
4Q12	6.81	19.19	*	6.47	0.00	90	
1Q13	6.79	17.34	1.006	5.83	0.06	1	
2Q13	6.86	19.24	0.958	1.01	0.09	-285	
3Q13	6.85	19.61	1.003	4.21	0.13	261	
4Q13	6.83	18.87	1.030	7.86	0.01	69	
1Q14	6.79	17.15	0.977	4.91	0.14	56	
2Q14	6.80	18.59	0.969	3.00	0.19	98	
3Q14	6.85	19.68	*	9.27	0.20	103	
4Q14	6.84	19.09	1.035	19.80	0.32	202	
1Q15	6.78	16.62	1.091	6.01	0.39	115	
2Q15	6.88	18.04	1.153	5.13	0.15	126	
MW-13							
3Q12	6.64	22.65	1.435	7.16	0.00	-96	
4Q12	6.60	20.73	*	9.02	0.04	-35	
1Q13	6.64	18.59	1.019	3.55	0.01	-178	
2Q13	6.60	19.69	1.260	2.35	0.00	-152	
3Q13	6.69	20.60	1.355	9.26	0.04	-122	
4Q13	6.54	19.63	1.527	7.87	0.00	-93	
1Q14	6.75	19.40	1.449	9.22	0.00	-107	
2Q14	6.71	20.02	1.459	3.40	0.00	-115	
3Q14	6.84	20.85	1.494	9.21	0.00	-124	
4Q14	6.72	19.48	1.491	7.92	0.00	-115	
1Q15	6.88	18.38	1.424	84.72	0.05	-110	
2Q15	6.81	20.23	1.415	5.22	0.03	-108	
MW-14							
3Q12	6.61	22.82	1.058	5.78	0.00	-63	
4Q12	6.61	19.59	1.137	7.69	0.03	-129	
1Q13	6.65	18.92	0.804	8.18	0.06	-100	
2Q13	6.48	19.09	1.138	5.68	0.03	-129	
3Q13	6.73	20.30	1.076	4.75	0.24	-113	
4Q13	6.70	19.37	1.262	1.83	0.05	-109	
1Q14	6.66	16.71	1.156	3.11	0.03	-90	
2Q14	6.74	19.27	1.371	2.17	0.65	-107	
3Q14	6.80	21.27	1.093	3.92	0.06	-117	
4Q14	6.74	18.78	1.204	4.11	0.00	-107	
1Q15	6.83	17.81	1.591	2.41	0.03	-92	
2Q15	6.77	19.34	1.490	1.59	0.03	-84	
MW-16							
1Q13	*	19.17	0.851	7.03	0.00	-98	Added to Interim GW Monitoring Program in 1Q13
2Q13	6.57	19.56	0.826	0.96	0.03	-288	
3Q13	6.56	21.37	0.986	9.33	0.28	-63	
4Q13	6.49	18.69	1.283	8.13	0.00	-42	
1Q14	6.55	16.61	1.579	9.95	0.05	-66	
2Q14	6.47	19.14	1.466	4.29	0.04	-95	
3Q14	6.55	20.83	*	9.79	0.00	-87	
4Q14	6.61	20.95	1.474	12.38	0.05	-99	
1Q15	6.61	16.64	1.627	1.20	0.01	-98	
2Q15	6.63	19.06	1.792	0.00	0.02	-104	

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 2a
SUMMARY OF MAIN AQUIFER GROUNDWATER MONITORING WELL FIELD PARAMETERS

Well ID	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
MW-22							
1Q13	11.15	17.69	1.096	9.20	0.00	-111	Added to Interim GW Monitoring Program in 1Q13
2Q13	6.76	19.91	1.150	1.64	0.07	-282	
3Q13	6.74	21.40	1.101	21.29	0.01	-105	
4Q13	6.72	20.53	1.171	9.24	0.02	-107	
1Q14	6.78	19.54	1.115	7.57	0.04	-104	
2Q14	6.75	21.83	1.066	8.03	0.05	-108	
3Q14	6.77	23.02	*	7.61	0.00	-106	
4Q14	6.74	20.55	1.242	10.99	0.00	-108	
1Q15	6.86	18.34	1.124	27.97	0.02	-113	
2Q15	6.71	20.51	1.068	7.14	0.05	-102	
MW-23							
1Q15	6.69	16.88	1.168	20.72	0.00	-92	Added to Interim GW Monitoring Program in 1Q15
2Q15	6.82	19.15	0.943	8.16	0.00	-111	
MW-24							
2Q13	6.73	18.63	1.203	3.04	0.24	-219	Added to Interim GW Monitoring Program in 2Q13
3Q13	6.75	19.12	1.169	9.18	0.34	207	
4Q13	6.75	18.59	1.371	9.32	1.62	74	
1Q14	6.75	16.98	1.338	8.15	0.08	91	
2Q14	6.69	18.35	1.264	1.63	1.34	98	
3Q14	6.79	19.63	*	7.14	1.03	132	
4Q14	6.81	19.40	1.321	7.42	1.89	146	
1Q15	6.88	16.76	1.340	1.60	0.97	67	
2Q15	6.85	18.63	1.374	1.21	0.24	100	
MW-25							
4Q14	6.73	20.05	1.786	20.33	0.00	-98	Added to Interim GW Monitoring Program in 4Q14
1Q15	6.83	17.88	1.759	9.14	0.00	-86	
2Q15	6.94	18.87	1.945	4.87	0.00	-69	
MW-26							
4Q14	6.81	19.62	1.023	9.02	0.06	53	Added to Interim GW Monitoring Program in 4Q14
1Q15	6.73	17.24	0.841	8.43	0.16	166	
2Q15	6.90	19.04	1.036	0.00	0.10	89	
MW-27							
4Q14	6.74	18.71	1.322	7.04	1.11	-62	Added to Interim GW Monitoring Program in 4Q14
1Q15	6.89	15.73	1.176	8.67	2.45	-22	
2Q15	6.84	18.94	1.130	22.35	0.43	77	
MW-28							
4Q14	6.75	18.72	1.420	8.32	0.00	-95	Added to Interim GW Monitoring Program in 4Q14
1Q15	6.70	16.96	2.112	5.76	0.01	-75	
2Q15	6.64	18.28	2.240	1.68	0.00	-100	
P-54							
3Q12	6.72	19.02	0.973	7.77	0.00	9	
4Q12	6.72	17.62	1.167	4.76	0.17	146	
1Q13	6.75	17.50	1.061	4.97	0.11	-23	
2Q13	6.70	18.08	1.105	2.88	0.11	-96	Initial Sample
	6.73	17.51	1.035	4.36	0.63	165	Confirmation Sample
3Q13	6.80	18.42	1.091	8.66	4.22	293	
4Q13	6.80	18.09	1.475	6.74	2.46	68	
1Q14	6.74	16.08	1.147	7.53	1.40	108	
2Q14	6.69	17.89	1.065	2.80	2.28	140	
3Q14	6.81	19.11	*	1.04	2.50	117	
4Q14	6.76	18.30	1.432	4.50	2.79	173	
1Q15	6.89	15.57	1.339	8.49	3.85	100	
2Q15	6.79	17.29	1.465	11.72	1.96	146	

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 2a
SUMMARY OF MAIN AQUIFER GROUNDWATER MONITORING WELL FIELD PARAMETERS

Well ID	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
P-55							
3Q12	NM	NM	NM	NM	NM	NM	Well damaged. No sample collected.
4Q12	NM	NM	NM	NM	NM	NM	Well damaged. No sample collected.
1Q13		17.37	0.635	7.68	0.00	-125	Well Replaced during 4Q12
2Q13	6.86	21.33	0.799	0.06	0.02	-174	
3Q13	6.91	21.72	0.785	9.58	0.01	-133	
4Q13	6.87	21.40	0.950	3.17	0.03	-115	
1Q14	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
2Q14	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
3Q14	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
4Q14	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
1Q15	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
2Q15	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
P-56							
3Q12	6.58	22.08	1.245	3.47	0.00	12	
4Q12	6.51	22.60	*	7.52	0.02	-7	
1Q13		20.98	1.106	4.56	0.00	-47	
2Q13	6.61	22.69	1.218	3.00	0.00	-122	
3Q13	6.70	25.57	1.395	6.56	0.02	-115	
4Q13	6.63	24.88	1.319	1.79	0.01	-91	
1Q14	6.66	21.79	1.248	1.13	0.05	-100	
2Q14	6.68	20.97	1.227	1.79	0.00	-92	
3Q14	6.66	25.62	0.126	8.34	0.04	-107	
4Q14	6.65	23.68	1.243	6.14	0.00	-110	
1Q15	6.75	21.54	1.445	17.99	0.04	-112	
2Q15	6.65	22.76	1.411	1.42	0.00	-102	
P-57							
3Q12	6.59	20.98	1.182	3.25	0.00	-5	
4Q12	6.59	18.72	*	5.19	0.00	-28	
1Q13		20.16	1.116	6.22	0.00	-104	
2Q13	6.53	20.78	1.331	6.97	0.00	-146	
3Q13	6.59	22.45	1.235	8.81	0.00	-109	
4Q13	6.60	21.55	1.284	4.52	0.00	-120	
1Q14	6.66	20.29	1.271	9.67	0.00	-178	
2Q14	6.61	21.26	1.309	19.65	0.04	-106	
3Q14	6.63	23.22	*	9.69	0.00	-108	
4Q14	6.62	21.75	1.414	8.91	0.00	-120	
1Q15	6.62	-100.00	1.215	1.75	0.00	22	
	6.65	21.28	1.207	20.64	0.00	-85	
2Q15	6.58	22.71	1.319	1.80	0.08	-93	
P-58							
3Q12	6.56	19.51	1.199	12.67	0.00	19	
4Q12	6.49	18.76	*	8.22	0.00	11	Initial Sample
	7.45	18.15	1.259	13.60	0.01	-112	Confirmation Sample
1Q13	6.57	16.48	0.964	23.26	0.00	-67	
2Q13	6.50	18.92	1.174	23.19	0.03	-109	
3Q13	6.53	21.63	1.201	9.42	0.05	-87	
4Q13	6.52	19.70	1.430	6.70	0.02	-84	
1Q14	6.55	18.92	1.201	8.00	0.04	-163	
2Q14	6.53	19.72	1.187	11.10	0.11	-65	
3Q14	6.60	22.73	*	7.88	0.02	-86	
4Q14	6.58	21.05	1.441	6.77	0.00	-89	
1Q15	6.44	20.05	1.437	4.70	0.02	-80	
	6.47	19.54	1.511	3.21	0.00	-56	
2Q15	6.47	21.90	1.519	4.53	0.09	-48	

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 2a
SUMMARY OF MAIN AQUIFER GROUNDWATER MONITORING WELL FIELD PARAMETERS

Well ID	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
P-59							
3Q12	6.63	21.74	1.220	9.00	0.00	-79	
4Q12	6.57	17.90	*	7.16	0.00	14	
1Q13	6.64	16.36	1.208	4.99	0.00	-82	
2Q13	6.54	18.74	1.109	3.91	0.00	-119	
3Q13	6.64	21.34	1.202	3.31	0.05	-107	
4Q13	6.63	20.31	1.318	4.96	0.00	-96	
1Q14	6.57	17.87	1.486	11.88	0.04	-203	
2Q14	6.61	18.96	1.514	17.69	0.18	-92	
3Q14	6.61	23.29	*	6.10	0.00	-105	
4Q14	6.62	21.78	1.361	8.52	0.00	-103	
1Q15	6.58	21.25	1.580	9.89	0.02	-98	
2Q15	6.62	24.48	1.476	9.55	0.05	-87	
P-66							
3Q12	6.41	22.52	1.372	20.89	0.00	-53	
4Q12	6.44	18.80	1.353	21.29	0.00	-161	
1Q13	6.48	19.00	0.943	14.28	0.00	-79	
2Q13	6.40	19.20	1.198	13.65	0.00	-133	
3Q13	6.46	20.78	1.173	8.99	0.04	-81	
4Q13	6.46	20.11	1.429	13.42	0.02	-82	
1Q14	6.44	18.56	1.221	9.76	0.04	-87	
2Q14	6.45	21.06	1.203	7.90	0.00	-83	
3Q14	6.58	22.67	1.065	7.24	0.07	-89	
4Q14	6.50	19.76	1.098	10.97	0.00	-86	
1Q15	6.61	19.11	1.164	35.14	0.03	-74	
2Q15	6.50	20.30	1.058	7.24	0.01	-69	
P-68							
3Q12	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
4Q12	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
1Q13	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
2Q13	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
3Q13	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
4Q13	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
1Q14	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
2Q14	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
3Q14	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
4Q14	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
1Q15	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
2Q15	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
P-74							
3Q12	6.68	20.31	0.580	10.52	0.00	1	
4Q12	6.60	18.13	*	14.87	0.00	-22	
1Q13	*	16.88	0.445	24.29	0.00	-39	
2Q13	6.99	16.19	0.175	14.65	1.42	-93	
3Q13	6.92	20.80	0.318	9.99	0.04	-122	
4Q13	6.68	18.27	0.447	19.33	0.00	-81	
1Q14	6.61	16.61	0.686	14.25	0.00	-103	
2Q14	7.36	16.48	0.316	10.22	4.52	-3	
3Q14	6.84	20.10	0.260	9.50	0.06	-133	
4Q14	7.26	18.44	0.165	9.64	7.10	68	
1Q15	6.60	17.61	0.691	5.70	0.00	-129	
2Q15	7.49	19.23	1.885	5.99	3.60	-15	
P-93A							
3Q12	6.71	20.89	1.144	43.60	5.20	-13	
4Q12	6.63	20.47	*	32.40	4.64	15	
1Q13	6.79	20.25	1.198	36.06	4.26	-66	
2Q13	6.85	19.70	1.433	33.41	5.83	-86	
3Q13	6.99	23.07	1.654	36.18	4.25	-83	
4Q13	7.15	26.33	1.618	72.75	5.89	-50	
1Q14	6.99	19.48	1.872	24.97	4.65	-74	
2Q14	7.02	20.74	2.104	18.21	4.97	-60	
3Q14	6.87	21.30	*	10.96	4.31	-50	
4Q14	6.77	20.15	1.949	9.66	3.50	-56	
1Q15	6.84	18.54	1.953	5.56	0.04	-111	
2Q15	6.73	21.51	1.599	9.30	0.18	-7	

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 2a
SUMMARY OF MAIN AQUIFER GROUNDWATER MONITORING WELL FIELD PARAMETERS

Well ID	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
P-93B							
3Q12	6.76	19.61	1.973	3.28	0.12	-65	
4Q12	6.77	17.79	*	0.76	0.00	-48	
1Q13	6.80	17.81	1.731	2.92	0.12	-116	
2Q13	6.84	17.21	1.666	3.54	0.97	-99	
3Q13	6.80	20.05	1.644	1.56	0.05	-117	
4Q13	6.85	18.53	1.928	9.70	1.75	0	
1Q14	6.84	15.74	1.605	4.53	1.62	-87	
2Q14	6.93	18.96	1.454	3.43	3.47	-76	
3Q14	6.88	20.02	*	9.67	0.98	-108	
4Q14	6.87	18.71	1.642	2.85	0.18	-115	
1Q15	6.89	15.29	1.583	3.04	0.67	-94	Initial Sample
	6.91	15.48	1.651	4.58	0.02	-105	Confirmation Sample
2Q15	6.82	18.50	1.399	14.68	2.13	-93	
P-93C							
3Q12	6.77	20.55	1.416	8.66	0.16	-45	
4Q12	6.78	18.27	*	0.00	0.02	19	
1Q13	6.91	17.76	0.916	0.83	0.12	-118	
2Q13	6.91	17.09	0.961	0.00	0.89	-74	
3Q13	6.83	20.08	1.550	0.69	0.08	-81	Initial Sample
	6.87	20.60	1.270	0.03	0.08	-111	Confirmation Sample
4Q13	6.91	18.92	1.366	0.28	0.87	-82	
1Q14	6.94	15.83	1.298	0.12	1.88	-67	
2Q14	6.89	18.31	1.308	4.81	0.95	-57	
3Q14	6.92	19.88	*	2.59	2.03	-74	
4Q14	6.91	18.37	1.320	8.93	0.00	-81	
1Q15	6.90	18.02	1.377	73.30	0.00	-104	Initial Sample
	7.04	16.91	1.289	4.15	0.10	-190	Confirmation Sample
2Q15	7.19	20.18	1.144	0.45	0.06	-83	
P-93D							
3Q12	6.93	21.54	1.446	2.93	0.00	-88	
4Q12	7.76	17.20	1.623	2.10	NM	NM	
1Q13	7.07	16.25	1.187	4.91	0.00	-77	
2Q13	7.08	18.02	1.211	3.37	0.17	-111	
3Q13	7.04	21.16	1.306	1.21	0.12	-120	
4Q13	6.98	20.50	1.467	0.43	0.00	-103	
1Q14	6.93	17.14	1.378	0.58	0.04	-274	
2Q14	6.97	17.61	1.378	4.61	0.00	-103	
3Q14	7.01	20.51	*	5.34	0.00	-127	
4Q14	6.91	18.72	1.725	5.38	0.00	-99	
1Q15	6.92	17.30	1.424	6.10	0.05	-122	Initial Sample
	6.98	17.38	1.573	7.01	0.00	-90	Confirmation Sample
2Q15	6.99	16.10	1.931	48.24	0.82	-89	
P-114							
3Q12	7.13	23.30	1.153	9.01	0.53	-64	
4Q12	7.12	21.18	*	12.12	3.00	15	
1Q13	7.25	19.52	0.782	9.14	1.53	-96	
2Q13	7.33	20.80	0.941	31.68	1.83	-144	
3Q13	7.45	22.10	1.095	17.89	3.10	-103	
4Q13	7.16	20.73	1.191	15.82	2.36	-95	
1Q14	7.13	18.07	1.228	47.51	2.25	-86	
2Q14	7.36	20.07	1.245	18.06	1.85	-91	
3Q14	7.98	22.69	*	8.46	3.54	-110	
4Q14	7.30	20.31	1.382	29.21	2.65	-112	
1Q15	7.26	18.07	1.228	384.90	2.94	-94	
2Q15	6.97	20.49	1.224	74.05	2.30	-83	

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 2a
SUMMARY OF MAIN AQUIFER GROUNDWATER MONITORING WELL FIELD PARAMETERS

Well ID	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
ROST-3-MW (ROST-3-PZ)							
3Q12	6.83	24.31	0.813	6.90	0.29	-95	Added to Interim GW Monitoring Program in 2Q12
4Q12	6.84	15.50	*	6.38	0.63	-9	
1Q13	*	16.92	0.723	6.82	0.00	-124	
2Q13	6.94	18.60	0.751	11.04	0.01	-319	
3Q13	6.95	18.57	0.773	33.57	0.00	-128	
4Q13	6.89	18.00	0.915	8.72	0.00	-111	
1Q14	6.95	16.14	0.939	9.80	0.00	-116	
2Q14	6.89	18.62	0.974	5.54	0.00	-127	
3Q14	6.88	19.20	*	9.54	0.00	-128	
4Q14	6.83	18.00	1.127	7.26	0.00	-117	
1Q15	6.92	16.56	1.151	4.72	0.01	-118	
2Q15	6.82	17.70	1.152	5.33	0.04	-123	
ROST-4-PZ(C)							
3Q12	6.74	21.56	0.976	6.67	0.04	-94	Added to Interim GW Monitoring Program in 2Q12
4Q12	6.75	18.50	*	0.81	0.02	-47	
1Q13	6.77	19.35	1.091	7.82	0.00	-173	
2Q13	6.75	19.22	1.334	1.67	0.01	-148	
3Q13	6.85	20.00	1.089	4.00	0.13	-111	
4Q13	6.69	18.87	1.769	5.71	0.00	-119	
1Q14	6.64	17.08	1.888	3.68	0.01	-79	
2Q14	6.61	20.07	2.351	5.94	0.09	-80	
3Q14	6.78	19.88	*	5.00	0.01	-104	
4Q14	6.75	19.09	1.662	5.57	0.00	-114	
1Q15	6.72	16.56	2.578	5.92	0.07	-101	
2Q15	6.77	19.34	2.204	0.00	0.06	-165	
T-12							
3Q12	6.79	18.86	1.259	4.54	0.00	-125	
4Q12	6.68	16.69	*	1.47	0.00	-2	
1Q13	6.93	15.73	1.075	2.11	0.00	-117	
2Q13	6.81	18.64	1.177	10.67	0.00	-122	
3Q13	7.06	20.34	1.200	5.39	0.01	-164	
4Q13	6.65	19.39	1.324	6.84	0.00	-97	
1Q14	6.91	16.38	1.183	1.47	0.03	-111	
2Q14	6.94	17.65	1.176	6.70	0.00	-128	
3Q14	6.85	21.13	0.170	3.45	0.01	-128	
4Q14	6.82	20.43	1.123	4.23	0.00	-125	
1Q15	6.78	19.19	1.126	4.19	0.03	-103	
2Q15	6.76	20.42	1.079	1.51	0.00	-107	

NOTES:
1) Field parameters were collected using the Troll 9500.
2) NM = Not Measured
3) * = Equipment malfunction. Results are suspected.
4) Negative parameter readings for Turbidity and DO are recorded as zero.

TABLE 2b
SUMMARY OF PERCHED GROUNDWATER MONITORING WELL FIELD PARAMETERS

Well ID	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
P-60-12S							
3Q12	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
4Q12	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
1Q13	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
2Q13	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
3Q13	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
4Q13	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
1Q14	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
2Q14	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
3Q14	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
4Q14	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
1Q15	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
2Q15	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
P-60-13S							
3Q12	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
4Q12	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
1Q13	NM	NM	NM	NM	NM	NM	Well is dry.
2Q13	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
3Q13	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
4Q13	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
1Q14	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
2Q14	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
3Q14	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
4Q14	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
1Q15	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
2Q15	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
ROST-5-PZ							
3Q12	NM	NM	NM	NM	NM	NM	Well is dry.
4Q12	NM	NM	NM	NM	NM	NM	Well is dry.
1Q13	NM	NM	NM	NM	NM	NM	Well is dry.
2Q13	NM	NM	NM	NM	NM	NM	Well is dry.
3Q13	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
4Q13	NM	NM	NM	NM	NM	NM	Well is dry.
1Q14	NM	NM	NM	NM	NM	NM	Well is dry.
2Q14	NM	NM	NM	NM	NM	NM	Well is dry.
3Q14	NM	NM	NM	NM	NM	NM	Well is dry.
4Q14	NM	NM	NM	NM	NM	NM	Well is dry.
1Q15	NM	NM	NM	NM	NM	NM	Well is dry.
2Q15	NM	NM	NM	NM	NM	NM	Well is dry.
ROST-7-PZ							
3Q12	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
4Q12	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
1Q13	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
2Q13	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
3Q13	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
4Q13	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
1Q14	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
2Q14	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
3Q14	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
4Q14	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
1Q15	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
2Q15	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
ROST-10-PZ							
3Q12	NM	NM	NM	NM	NM	NM	Well is dry.
4Q12	NM	NM	NM	NM	NM	NM	Well is dry.
1Q13	NM	NM	NM	NM	NM	NM	Well is dry.
2Q13	NM	NM	NM	NM	NM	NM	Well is dry.
3Q13	NM	NM	NM	NM	NM	NM	Well is dry.
4Q13	NM	NM	NM	NM	NM	NM	Well is dry.
1Q14	NM	NM	NM	NM	NM	NM	Well is dry.
2Q14	NM	NM	NM	NM	NM	NM	Well is dry.
3Q14	NM	NM	NM	NM	NM	NM	Well is dry.
4Q14	NM	NM	NM	NM	NM	NM	Well is dry.
1Q15	NM	NM	NM	NM	NM	NM	Well is dry.
2Q15	NM	NM	NM	NM	NM	NM	Well is dry.
ROST-21-PZ							
3Q12	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
4Q12	NM	NM	NM	NM	NM	NM	Well is dry.
1Q13	NM	NM	NM	NM	NM	NM	Well is dry.
2Q13	NM	NM	NM	NM	NM	NM	Well is dry.
3Q13	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
4Q13	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
1Q14	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
2Q14	NM	NM	NM	NM	NM	NM	Well is dry.
3Q14	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
4Q14	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
1Q15	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
2Q15	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP

NOTES:
1) NM = Not Measured

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						VOCs																						
						Acetone	Benzene	Bromobenzene	Butane	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	4-Chlorotoluene	Cymene (p-Isopropyltoluene)	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,1-Dichloroethane	Dichloromethane (Methylene chloride)	1,2-Dichloropropane	trans-1,3-Dichloropropene	1,4-Dioxane
					Screening Values (mg/L)	6.3 [1]	0.005 [1]	0.056 [3]		4.2 [1]	0.35 [3]			0.7 [1]	0.005 [1]	0.1 [1]		0.07 [1]				0.6 [2]		0.075 [2]	1.4 [1]	0.005 [2]	0.005 [2]	0.001 [2]	0.0077 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																						
MW-01	MW1-ROX-073012	7/30/2012	48.80 - 58.80	39.39	NE	<0.005	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW1-ROX-102612	10/26/2012		41.22	NE																								
	MW1-ROX-121712	12/17/2012		41.22	NE	<0.005 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW1-ROX-011013	1/10/2013		41.89	NE	<0.005	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW1-ROX-040913	4/9/2013		42.55	NE	<0.005	0.0004 J	<0.005		<0.01	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW1-ROX-070813	7/8/2013		39.56	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.00097 U	<0.002	<0.0005	<0.025
	MW1-ROX-100313	10/3/2013		40.28	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW1-ROX-011414	1/14/2014		42.77	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW1-ROX-040714	4/7/2014		43.28	NE	<0.01	0.00066	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW1-ROX-070914	7/9/2014		42.09	NE	<0.01 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW1-ROX-100614	10/6/2014		41.1	NE	<0.01 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW1-ROX-011215	1/12/2015		42.73	NE	0.035	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW1-ROX-040615	4/6/2015	48.80 - 58.80	44.11	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
MW-02	MW2-ROX-073012	7/30/2012	49.87 - 59.87	40.60	NE	<0.005	0.01	<0.005		<0.005	<0.005	0.0078	0.001 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.009	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW2-ROX-102612	10/26/2012		42.35	NE	<0.025 UJ	0.0142	<0.025		<0.025	<0.025	<0.025	<0.025	<0.025	<0.005	<0.005	<0.01	<0.005	<0.01	0.0172 J	<0.025	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.0025	<0.13
	MW2-ROX-011113	1/11/2013		42.94	NE	<0.01	0.0192	<0.01		<0.01	0.0176 J	0.0077 J	0.002 J	<0.01	<0.002	<0.002	0.0083	<0.002	<0.004	<0.01	0.0094 J	<0.002	<0.002	<0.002	<0.002	<0.004	<0.004	<0.001	<0.05
	MW2-ROX-040913	4/9/2013		43.70	NE	<0.05	0.0174	<0.025		<0.025	0.0191 J	0.0085 J	<0.025	<0.025	<0.005	<0.005	<0.01	<0.005	<0.01	<0.025	0.0101 J	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.0025	<0.13
	MW2-ROX-071113	7/11/2013		40.82	NE	<0.01 UJ	0.006	<0.005		<0.005 UJ	<0.005	0.0073	0.0029 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0075	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	
	MW2-ROX-100813	10/8/2013		41.73	NE	<0.01	0.0139	<0.005		0.0133	<0.005	0.0082	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0104	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW2-ROX-012014	1/20/2014		44.00	NE	<0.01	0.0238	<0.005		<0.005	0.0254	0.0096	0.0015 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0106	<0.001	<0.001	<0.001	0.0043	<0.002	<0.002	<0.0005	<0.025
	MW2-ROX-041014	4/10/2014		44.66	NE	<0.01	0.0214	<0.005		0.0136	0.0208	0.0077	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.009	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW2-ROX-071414	7/14/2014		43.13	NE	<0.01	0.0102 J	<0.005		<0.005	0.0194 J	0.0073 J	0.0013 J J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.008 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW2-ROX-101014	10/10/2014		42.49	NE	<0.02 UJ	0.0132	<0.01		<0.01	0.0145	0.0057 J	0.0011 J	<0.01	<0.002	<0.002	<0.004	<0.002	<0.004	<0.01	0.0063 J	<0.002	<0.002	<0.002	<0.002	<0.004	<0.004	<0.001	<0.05
	MW2-ROX-011615	1/16/2015		44.1	NE	<0.01	0.0278	0.00045 J		<0.005	0.0185	0.0091	0.0016 J	<0.005	<0.001	<0.001	<0.002	<0.001	0.0052	<0.005	0.0109	0.0008 J	0.00084 J	0.00099 J	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW2-ROX-041315	4/13/2015	49.87 - 59.87	45.56	NE	<0.01	0.0283	<0.005		<0.005	<0.005	0.0052	0.00084 J	0.00028 J	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0064	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
MW-03	MW3-ROX-072712	7/27/2012	34.67 - 44.67	26.60	NE	<0.005 UJ	0.0089	<0.005		<0.005 UJ	<0.005	<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.002 UJ	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	
	MW3-ROX-102512	10/25/2012		28.39	NE	<0.005 UJ	0.0017	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW3-ROX-010913	1/9/2013		29.35	NE	<0.005	0.0014	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW3-ROX-040813	4/8/2013		29.74	NE	<0.005 UJ	0.008	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW3-ROX-071113	7/11/2013		26.32	NE	<0.01 UJ	0.0059	<0.005		<0.005 UJ	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	
	MW3-ROX-100813	10/8/2013		27.38	NE	<0.01	0.00057	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW3-ROX-011614	1/16/2014		29.91	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW3-ROX-040914	4/9/2014		30.50	NE	<0.01	0.0015	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW3-ROX-071114	7/10/2014		29.05	NE	<0.01	0.00062	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW3-ROX-100914	10/9/2014		28.18	NE	<0.01 UJ	0.0005	<0.005		<0.005	<0.005	<0.005	0.00083 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW3-ROX-011515	1/15/2015		29.65	NE	<0.01	0.00037 J	<0.005		<0.005	<0.005	0.00049 J	0.0009 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW3-ROX-041015	4/10/2015	34.67 - 44.67	31.16	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						VOCs																							
						Acetone	Benzene	Bromobenzene	Butane	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	4-Chlorotoluene	Cymene (p-Isopropyltoluene)	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,1-Dichloroethane	Dichloromethane (Methylene chloride)	1,2-Dichloropropane	trans-1,3-Dichloropropene	1,4-Dioxane
					Screening Values (mg/L)	6.3 [1]	0.005 [1]	0.056 [3]		4.2 [1]	0.35 [3]			0.7 [1]	0.005 [1]	0.1 [1]		0.07 [1]				0.6 [2]		0.075 [2]	1.4 [1]	0.005 [2]	0.005 [2]	0.001 [2]	0.0077 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																							
MW-04	MW4-ROX-072512	7/25/2012	46.06 - 56.06	37.63	NE	<0.005	0.191	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW4-ROX-072512-Dup	7/25/2012		37.63	NE	<0.005	0.199	<0.005		<0.005	0.0014 J	0.0017 J	0.002 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW4-ROX-102912	10/29/2012		39.45	NE	<0.01 UJ	0.354	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.002	<0.002	<0.004	<0.002	<0.004 UJ	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.004	<0.004	<0.001	<0.05
	MW4-ROX-011113	1/11/2013		40.20	NE	<0.005	9.04 J	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW4-ROX-011113-DUP	1/11/2013		40.20	NE	<0.005	8.96 J	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW4-ROX-030413	3/4/2013		40.20	NE	<0.5	21.4	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.2	<0.1	<0.2	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.05	<2.5
	MW4-ROX-040913	4/9/2013		40.90	NE	<0.02	64.2	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.002	<0.002	<0.004	<0.002	<0.004	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.004	<0.004	<0.001	<0.05
	MW4-ROX-040913-DUP	4/9/2013		40.90	NE	<0.01	72.9	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW4-ROX-071713	7/17/2013		37.61	NE	<0.01	12.2	<0.005		<0.005	<0.005	0.0016 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	<0.05
	MW4-ROX-101613	10/16/2013		38.80	NE	<0.1	1.7	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.02	<0.01	<0.02	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.005	<0.25
	MW4-ROX-013014	1/30/2014		41.09	NE	<0.01	2.01	<0.005		<0.005	0.00058 J	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW4-ROX-041614	4/16/2014		41.91	NE	<0.01	0.553	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW4-ROX-071614	7/16/2014		40.18	NE	<0.01	1.88	<0.005		<0.005	<0.005	<0.05	<0.05	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW4-ROX-101614	10/16/2014		39.49	NE	<0.05	0.815	<0.025		<0.025	<0.025	<0.025	<0.025	<0.025	<0.005	<0.005	<0.01	<0.005	<0.01	<0.025	<0.025	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.0025	<0.13
	MW4-ROX-012115	1/21/2015		41.27	NE	<0.01	0.0902	<0.005		<0.005	<0.005	<0.005	0.00065 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW4-ROX-042115	4/21/2015	46.06 - 56.06	42.58	NE	<0.01	0.0702	<0.005		<0.005	<0.005	<0.005	0.00066 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
MW-05	MW5-ROX-072512	7/25/2012	33.97 - 43.97	26.18	NE	<0.005	0.0925	<0.005		<0.005	<0.005	0.0015 J	0.007	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.00099 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW5-ROX-102912	10/29/2012		28.16	NE	<0.005 UJ	0.0628	<0.005		<0.005	<0.005	<0.005	0.0059	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW5-ROX-011113	1/11/2013		28.75	NE	<0.005	0.0072	<0.005		<0.005	<0.005	0.0016 J	0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW5-ROX-040913	4/9/2013		29.41	NE	<0.005	0.0018	<0.005		<0.01	<0.005	0.0018 J	0.0063	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW5-ROX-070913	7/9/2013		26.04	NE	<0.01	0.0075	<0.005		<0.005	<0.005	<0.005	0.0085	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	
	MW5-ROX-100813	10/8/2013		26.97	NE	<0.01	0.0016	<0.005		<0.005	<0.005	<0.005	0.0064	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW5-ROX-011714	1/17/2014		29.59	NE	<0.01	0.002	<0.005		<0.005	<0.005	0.002 J	0.0064	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW5-ROX-041014	4/10/2014		30.09	NE	0.021 J	0.0037	<0.005		<0.005	<0.005	0.0017 J	0.0062	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW5-ROX-071414	7/14/2014		28.59	NE	<0.01	0.001	<0.005		<0.005	<0.005	0.0011 J	0.0046 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW-5-ROX-100914	10/9/2014		27.75	NE	<0.01 UJ	0.028	<0.005		<0.005	<0.005	0.00083 J	0.0049 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW5-ROX-011515	1/15/2015		29.34	NE	<0.01	0.003	<0.005		<0.005	<0.005	0.0014 J	0.0059	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW5-ROX-041315	4/13/2015	33.97 - 43.97	30.97	NE	<0.01	0.0391	<0.005		<0.005	<0.005	0.0014 J	0.0051	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
MW-06A	MW6A-ROX-080112	8/1/2012	34.83 - 44.83	28.36	NE	<0.005	0.0016	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6A-ROX-102412	10/24/2012		30.06	NE	<0.12 UJ	0.00073	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6A-ROX-011413	1/14/2013		31.00	NE	<0.005	0.0276	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6A-ROX-040313	4/3/2013		31.62	NE	<0.005 UJ	0.0017	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6A-ROX-070913	7/9/2013		28.25	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	
	MW6A-ROX-070913-DUP	7/9/2013		28.25	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	
	MW6A-ROX-100713	10/7/2013		28.87	NE	<0.01 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6A-ROX-100713-DUP	10/7/2013		28.87	NE	<0.01 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6A-ROX-011614	1/16/2014		31.62	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6A-ROX-011614-DUP	1/16/2014		31.62	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6A-ROX-040814	4/8/2014		32.16	NE	0.11	0.0011	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6A-ROX-040814-DUP	4/8/2014		32.16	NE	0.116	0.001	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6A-ROX-071014	7/10/2014		30.75	NE	<0.01 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002 UJ	<0.001	<0.002 UJ	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025 UJ
	MW6A-ROX-100814	10/8/2014		29.84	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6A-ROX-011415	1/14/2015		31.54	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6A-ROX-040715	4/7/2015	34.83 - 44.83	33.08	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						VOCs																						
						Acetone	Benzene	Bromobenzene	Butane	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	4-Chlorotoluene	Cymene (p-Isopropyltoluene)	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,1-Dichloroethane	Dichloromethane (Methylene chloride)	1,2-Dichloropropane	trans-1,3-Dichloropropene	1,4-Dioxane
			Screening Values (mg/L)			6.3 [1]	0.005 [1]	0.056 [3]		4.2 [1]	0.35 [3]			0.7 [1]	0.005 [1]	0.1 [1]		0.07 [1]				0.6 [2]		0.075 [2]	1.4 [1]	0.005 [2]	0.005 [2]	0.001 [2]	0.0077 [1]
Location	**Sample ID**	**Sample Date**	**Screened Interval (ft btoc)**	**Depth to Water (ft btoc)**	**Product Thickness (ft)**	**Analytical Results (mg/L)**																							
MW-06B	MW6B-ROX-080112	8/1/2012	64.05 - 69.05	28.39	NE	<0.0032 U	0.00045 J	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6B-ROX-102412	10/24/2012		30.11	NE	<0.005 UJ	0.0015	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6B-ROX-011713	1/17/2013		31.11	NE	<0.005	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6B-ROX-040313	4/3/2013		31.68	NE	<0.005 UJ	0.00043 J	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6B-ROX-070913	7/9/2013		28.25	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	
	MW6B-ROX-100713	10/7/2013		28.93	NE	<0.01 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6B-ROX-011614	1/16/2014		31.67	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6B-ROX-040814	4/8/2014		32.21	NE	<0.01	0.0009	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6B-ROX-071014	7/10/2014		30.81	NE	<0.01 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002 UJ	<0.001	<0.002 UJ	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025 UJ
	MW6B-ROX-100814	10/8/2014		29.87	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6B-ROX-011415	1/14/2015		31.59	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6B-ROX-040715	4/7/2015	64.05 - 69.05	33.10	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6B-ROX-040715-DUP	4/7/2015		33.10	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
MW-06C	MW6C-ROX-080112	8/1/2012	84.95 - 89.95	28.15	NE	<0.003 U	0.00061	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6C-ROX-102412	10/24/2012		27.85	NE	<0.005 UJ	0.00035 J	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6C-ROX-011713	1/17/2013		30.88	NE	<0.005 UJ	<0.0005 UJ	<0.005 UJ		<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.002 UJ	<0.001 UJ	<0.002 UJ	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.001 UJ	<0.001 UJ	<0.002 UJ	<0.002 UJ	<0.0005 UJ	<0.025 UJ
	MW6C-ROX-040313	4/3/2013		31.41	NE	<0.005 UJ	0.00062	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6C-ROX-070913	7/9/2013		28.03	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	
	MW6C-ROX-100713	10/7/2013		28.72	NE	<0.01 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6C-ROX-011614	1/16/2014		31.48	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6C-ROX-040814	4/8/2014		32.01	NE	<0.01	0.0021	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6C-ROX-071014	7/10/2014		30.60	NE	<0.01 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002 UJ	<0.001	<0.002 UJ	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025 UJ
	MW6C-ROX-100814	10/8/2014		29.67	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6C-ROX-011415	1/14/2015		31.41	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6C-ROX-040915	4/9/2015	84.95 - 89.95	32.80	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
MW-06D	MW6D-ROX-080212	8/2/2012	104.72 - 109.72	30.56	NE	<0.005 UJ	0.00068	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	
	MW6D-ROX-102412	10/24/2012		29.71	NE	<0.005 UJ	0.00055	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6D-ROX-011713	1/17/2013		30.75	NE	<0.005 UJ	0.00053 J	<0.005 UJ		<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.002 UJ	<0.001 UJ	<0.002 UJ	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.001 UJ	<0.001 UJ	<0.002 UJ	<0.002 UJ	<0.0005 UJ	<0.025 UJ
	MW6D-ROX-040313	4/3/2013		31.27	NE	<0.005 UJ	0.00055	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6D-ROX-070913	7/9/2013		27.91	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	
	MW6D-ROX-100713	10/7/2013		28.58	NE	<0.01 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6D-ROX-011614	1/16/2014		31.33	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6D-ROX-040814	4/8/2014		31.85	NE	<0.01	0.0064	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6D-ROX-071014	7/10/2014		31.47	NE	<0.01 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002 UJ	<0.001	<0.002 UJ	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025 UJ
	MW6D-ROX-071014-DUP	7/10/2014		31.47	NE	<0.01 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002 UJ	<0.001	<0.002 UJ	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025 UJ
	MW6D-ROX-100814	10/8/2014		29.53	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6D-ROX-100814-DUP	10/8/2014		29.53	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6D-ROX-011415	1/14/2015		31.26	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6D-ROX-011415-DUP	1/14/2015		31.26	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW6D-ROX-040715	4/7/2015	104.72 - 109.72	32.74	NE	<0.01	0.00032 J	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						VOCs																									
						Acetone	Benzene	Bromobenzene	Butane	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	4-Chlorotoluene	Cymene (p-Isopropyltoluene)	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,1-Dichloroethane	Dichloromethane (Methylene chloride)	1,2-Dichloropropane	trans-1,3-Dichloropropene	1,4-Dioxane
			Screening Values (mg/L)			6.3 [1]	0.005 [1]	0.056 [3]		4.2 [1]	0.35 [3]			0.7 [1]	0.005 [1]	0.1 [1]		0.07 [1]				0.6 [2]		0.075 [2]	1.4 [1]	0.005 [2]	0.005 [2]	0.001 [2]	0.0077 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																									
MW-07	MW7-ROX-080712	8/7/2012	42.92 - 52.92	39.50	NE	0.199	591	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.02	<0.01	<0.02	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.005	<0.25
	MW7-ROX-103012	10/30/2012		41.23	NE	<10 UJ	833	<10		<10	<10	<10	<10	<10	<2	<2	<4	<2	<4 UJ	<10	<10	<2	<2	<2	<2	<2	<4	<4	<1	<50
	MW7-ROX-103012-DUP	10/30/2012		41.23	NE	<10 UJ	863	<10		<10	<10	<10	<10	<10	<2	<2	<4	<2	<4 UJ	<10	<10	<2	<2	<2	<2	<2	<4	<4	<1	<50
	MW7-ROX-011513	1/15/2013		42.21	NE	<20	1230	<20		<20	<20	<20	<20	<20	<4	<4	<8	<4	<8	<20	<20	<4	<4	<4	<4	<8	<8	<2	<100
	MW7-ROX-011513-DUP	1/15/2013		42.21	NE	<20	1320	<20		<20	<20	<20	<20	<20	<4	<4	<8	<4	<8	<20	<20	<4	<4	<4	<4	<8	<8	<2	<100
	MW7-ROX-041013	4/10/2013		42.70	NE	<20	475	<10		<20	<10	<10	<10	<10	<2	<2	<4	<2	<4	<10	<10	<2	<2	<2	<2	<4	<4	<1	<50
	MW7-ROX-041013-DUP	4/10/2013		42.70	NE	<20	499	<10		<20	<10	<10	<10	<10	<2	<2	<4	<2	<4	<10	<10	<2	<2	<2	<2	<4	<4	<1	<50
	MW7-ROX-071713	7/17/2013		39.60	NE	<0.01	1000 J	<0.005		<0.005	<0.005	0.0023 J J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0016 J J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	<0.05
	MW7-ROX-101613	10/16/2013		40.64	NE	<20	553	<10		<10	<10	<10	<10	<10	<2	<2	<4	<2	<4	<10	<10	<2	<2	<2	<2	<4	<4	<1	<50
	MW7-ROX-013014	1/30/2014		42.94	NE	<25	1490	<13		<13	<13	<13	<13	<13	<2.5	<2.5	<5	<2.5	<5	<13	<13	<2.5	<2.5	<2.5	<2.5	<5	<5	<1.3	<63
	MW7-ROX-041614	4/16/2014		43.79	NE	<50	1390	<25		<25	<25	<25	<25	<25	<5	<5	<10	<5	<10	<25	<25	<5	<5	<5	<5	<10	<10	<2.5	<130
	MW7-ROX-071614	7/16/2014		42.05	NE	<0.01	1290	<0.005		<0.005	0.0036 J J	0.0022 J J	0.0022 J J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0015 J J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW7-ROX-071614-DUP	7/16/2014		42.05	NE	<0.01	1390	<0.005		<0.005	0.0034 J J	0.0023 J J	0.0022 J J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0015 J J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW7-ROX-101614	10/16/2014		41.31	NE	<50	1130	<25		<25	<25	<25	<25	<25	<5	<5	<10	<5	<10	<25	<25	<5	<5	<5	<5	<10	<10	<2.5	<130
	MW7-ROX-101614-DUP	10/16/2014		41.31	NE	<50	984	<25		<25	<25	<25	<25	<25	<5	<5	<10	<5	<10	<25	<25	<5	<5	<5	<5	<10	<10	<2.5	<130
	MW7-ROX-012215	1/22/2015		43.45	NE	<10	821	<5		<5	<5	<5	<5	<5	<1	<1	<2	<1	<2	<5	<5	<1	<1	<1	<1	<2	<2	<0.5	<25
	MW7-ROX-012215-DUP	1/22/2015		43.45	NE	<10	799	<5		<5	<5	<5	<5	<5	<1	<1	<2	<1	<2	<5	<5	<1	<1	<1	<1	<2	<2	<0.5	<25
	MW7-ROX-042115	4/21/2015	42.92 - 52.92	44.63	NE	<0.5	1110	<0.25		<0.25	<0.25	<0.25	<0.25	<0.25	<0.05	<0.05	<0.1	<0.05	<0.1	<0.25	<0.25	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.025	<1.3
	MW7-ROX-042115-DUP	4/21/2015		44.63	NE	<0.5	1160	<0.25		<0.25	<0.25	<0.25	<0.25	<0.25	<0.05	<0.05	<0.1	<0.05	<0.1	<0.25	<0.25	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.025	<1.3
MW-08	MW8-ROX-080712	8/7/2012	33.60 - 43.60	30.97	NE	<0.378 U	397 J	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.02	<0.02	<0.04	<0.02	<0.04	<0.1	<0.1	<0.02	<0.02	<0.02	<0.02	<0.04	<0.04	<0.01	<0.5
	MW8-ROX-080712-DUP	8/7/2012		30.97	NE	<0.235 U	653 J	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.02	<0.01	<0.02	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.005	<0.25
	MW8-ROX-103012	10/30/2012		32.32	NE	<5 UJ	523	<5		<5	<5	<5	<5	<5	<1	<1	<2	<1	<2 UJ	<5	<5	<1	<1	<1	<1	<2	<2	<0.5	<25
	MW8-ROX-011513	1/15/2013		33.30	NE	<10	1120 J	<10		<10	<10	<10	<10	<10	<2	<2	<4	<2	<4	<10	<10	<2	<2	<2	<2	<4	<4	<1	<50
	MW8-ROX-041013	4/10/2013		33.77	NE	<50	969	<25		<50	<25	<25	<25	<25	<5	<5	<10	<5	<10	<25	<25	<5	<5	<5	<5	<10	<10	<2.5	<130
	MW8-ROX-071713	7/17/2013		30.43	NE	<0.008 U	532	<0.005		<0.005	<0.005	0.0033 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0023 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	<0.05
	MW8-ROX-071713-DUP	7/17/2013		30.43	NE	<0.01	494	<0.005		<0.005	<0.005	0.0031 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0024 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	<0.05
	MW8-ROX-101613	10/16/2013		31.59	NE	<20	360	<10		<10	<10	<10	<10	<10	<2	<2	<4	<2	<4	<10	<10	<2	<2	<2	<2	<4	<4	<1	<50
	MW8-ROX-101613-DUP	10/16/2013		31.59	NE	<20	351	<10		<10	<10	<10	<10	<10	<2	<2	<4	<2	<4	<10	<10	<2	<2	<2	<2	<4	<4	<1	<50
	MW8-ROX-013014	1/30/2014		34.02	NE	<25	721	<13		<13	<13	<13	<13	<13	<2.5	<2.5	<5	<2.5	<5	<13	<13	<2.5	<2.5	<2.5	<2.5	<5	<5	<1.3	<63
	MW8-ROX-013014-DUP	1/30/2014		34.02	NE	<25	748	<13		<13	<13	<13	<13	<13	<2.5	<2.5	<5	<2.5	<5	<13	<13	<2.5	<2.5	<2.5	<2.5	<5	<5	<1.3	<63
	MW8-ROX-041614	4/16/2014		34.73	NE	<20	862	<10		<10	<10	<10	<10	<10	<2	<2	<4	<2	<4	<10	<10	<2	<2	<2	<2	<4	<4	<1	<50
	MW8-ROX-041614-DUP	4/16/2014		34.73	NE	<20	1060	<10		<10	<10	<10	<10	<10	<2	<2	<4	<2	<4	<10	<10	<2	<2	<2	<2	<4	<4	<1	<50
	MW8-ROX-071614	7/16/2014		33.01	NE	<0.01 UJ	280	<0.005 UJ		<0.005 UJ	0.0069 J	0.0042 J J	0.0028 J J	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.002 UJ	<0.001 UJ	<0.002 UJ	<0.005 UJ	0.0032 J J	<0.001 UJ	<0.001 UJ	<0.001 UJ	<0.001 UJ	<0.002 UJ	<0.002 UJ	<0.0005 UJ	<0.025 UJ
	MW8-ROX-101614	10/16/2014		32.23	NE	<10	486	<5		<5	<5	<5	<5	<5	<1	<1	<2	<1	<2	<5	<5	<1	<1	<1	<1	<2	<2	<0.5	<25
	MW8-ROX-012215	1/22/2015		34.22	NE	<10	764	<5		<5	<5	<5	<5	<5	<1	<1	<2	<1	<2	<5	<5	<1	<1	<1	<1	<2	<2	<0.5	<25
	MW8-ROX-042115	4/21/2015	33.60 - 43.60	35.41	NE	<0.5	1100	<0.25		<0.25	<0.25	<0.25	<0.25	<0.25	<0.05	<0.05	<0.1	<0.05	<0.1	<0.25	<0.25	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.025	<1.3
MW-09	MW9-ROX-072712	7/27/2012	46.45 - 56.45	41.30	NE	<0.005 UJ	0.00058	<0.005		<0.005 UJ	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	
	MW9-ROX-102912	10/29/2012		43.17	NE	<0.005 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW9-ROX-011113	1/11/2013		43.90	NE	<0.123 U	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW9-ROX-040913	4/9/2013		44.67	NE	<0.005	<0.0005	<0.005		<0.01	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW9-ROX-070813	7/8/2013		42.35	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.0015 U	<0.002	<0.0005	<0.025
	MW9-ROX-100313	10/3/2013		42.27	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW9-ROX-011414	1/14/2014		44.47	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW9-ROX-040714	4/7/2014		44.99	NE	<0.01	0.0044	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW9-ROX-070914	7/9/2014		44.35	NE	<0.01 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW9-ROX-100714	10/7/2014		43.52	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW9-ROX-011315	1/13/2015		44.21	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW9-ROX-040915	4/9/2015	46.45 - 56.45	45.38	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						VOCs																						
						Acetone	Benzene	Bromobenzene	Butane	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	4-Chlorotoluene	Cymene (p-Isopropyltoluene)	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,1-Dichloroethane	Dichloromethane (Methylene chloride)	1,2-Dichloropropane	trans-1,3-Dichloropropene	1,4-Dioxane
					Screening Values (mg/L)	6.3 [1]	0.005 [1]	0.056 [3]		4.2 [1]	0.35 [3]			0.7 [1]	0.005 [1]	0.1 [1]		0.07 [1]				0.6 [2]		0.075 [2]	1.4 [1]	0.005 [2]	0.005 [2]	0.001 [2]	0.0077 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																							
MW-10	MW10-ROX-072712	7/27/2012	44.43 - 54.43	41.21	NE	<0.005 UJ	0.00058	<0.005		<0.005 UJ	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	
	MW10-ROX-102612	10/26/2012		43.08	NE																								
	MW10-ROX-121712	12/17/2012		43.08	NE	<0.005 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	0.00095 J	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW10-ROX-011013	1/10/2013		44.10	NE	<0.101 U	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	0.0074	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW10-ROX-012113	1/21/2013		44.10	NE	<0.025	0.003	<0.005		<0.0051 U	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.001	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	
	MW10-ROX-040913	4/9/2013		44.60	NE	<0.005	0.00067	<0.005		<0.01	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW10-ROX-070813	7/8/2013		42.27	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.0016 U	<0.002	<0.0005	<0.025
	MW10-ROX-100313	10/3/2013		42.38	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW10-ROX-011514	1/15/2014		44.42	NE	0.0174	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW10-ROX-040714	4/7/2014		45.00	NE	0.0684	0.0018	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	0.0032	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW10-ROX-070914	7/9/2014		44.35	NE	<0.01 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW10-ROX-100714	10/7/2014		43.58	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW10-ROX-011315	1/13/2015		44.27	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW10-ROX-040815	4/8/2015		45.30	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
MW-11	MW11-ROX-072712	7/27/2012	41.66 - 51.66	38.90	NE	<0.005 UJ	0.00073	<0.005		<0.005 UJ	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	
	MW11-ROX-102512	10/25/2012		40.59	NE	<0.005 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW11-ROX-011013	1/10/2013		41.43	NE	<0.005	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW11-ROX-040813	4/8/2013		42.02	NE	<0.005 UJ	<0.00065 U	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW11-ROX-070813	7/8/2013		39.24	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001 U	<0.002	<0.0005	<0.025
	MW11-ROX-100713	10/7/2013		39.95	NE	<0.01 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW11-ROX-011514	1/15/2014		42.16	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW11-ROX-040714	4/7/2014		42.70	NE	<0.01	0.0014	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW11-ROX-070914	7/9/2014		41.75	NE	<0.01 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW11-ROX-100714	10/7/2014		40.89	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW11-ROX-011315	1/13/2015		41.93	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW11-ROX-040815	4/8/2015		43.19	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
MW-12	MW12-ROX-072712	7/27/2012	41.92 - 51.92	39.22	NE	<0.005 UJ	0.0013	<0.005		<0.005 UJ	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	
	MW12-ROX-102512	10/25/2012		40.95	NE	<0.005 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW12-ROX-011013	1/10/2013		41.83	NE	<0.35 U	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW12-ROX-040813	4/8/2013		42.46	NE	<0.005 UJ	<0.00088 U	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW12-ROX-070913	7/9/2013		39.28	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	
	MW12-ROX-100713	10/7/2013		40.22	NE	<0.01 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW12-ROX-011514	1/15/2014		42.54	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW12-ROX-040814	4/8/2014		43.15	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW12-ROX-070914	7/9/2014		41.97	NE	<0.01 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW12-ROX-100614	10/6/2014		40.98	NE	<0.01 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW12-ROX-011215	1/12/2015		42.33	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW12-ROX-040615	4/6/2015		43.75	NE	0.0265	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						VOCs																							
						Acetone	Benzene	Bromobenzene	Butane	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	4-Chlorotoluene	Cymene (p-Isopropyltoluene)	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,1-Dichloroethane	Dichloromethane (Methylene chloride)	1,2-Dichloropropane	trans-1,3-Dichloropropene	1,4-Dioxane
			Screening Values (mg/L)			6.3 [1]	0.005 [1]	0.056 [3]		4.2 [1]	0.35 [3]			0.7 [1]	0.005 [1]	0.1 [1]		0.07 [1]				0.6 [2]		0.075 [2]	1.4 [1]	0.005 [2]	0.005 [2]	0.001 [2]	0.0077 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																							
MW-13	MW13-ROX-080812	8/8/2012	25.57 - 35.57	26.67	NE	<0.037 U	0.0069 J	<0.005 UJ		<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.002 UJ	<0.001 UJ	<0.002 UJ	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.001 UJ	<0.001 UJ	<0.002 UJ	<0.002 UJ	<0.0005 UJ	<0.025 UJ
	MW13-ROX-110812	11/8/2012		25.30	NE	<0.005	0.0048	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW13-ROX-012313	1/23/2013		29.26	NE	<0.005	0.0067 J	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025 UJ
	MW13-ROX-041213	4/12/2013		29.44	NE	<0.0319 UJ	0.0102 J	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW13-ROX-071213	7/12/2013		25.67	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001 UJ	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW13-ROX-100913	10/9/2013		26.94	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW13-ROX-012914	1/29/2014		29.63	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW13-ROX-041114	4/11/2014		30.15	NE	<0.01	0.00058	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW13-ROX-070714	7/7/2014		28.49	NE	<0.01 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW13-ROX-101014	10/10/2014		27.48	NE	<0.01 UJ	0.00037 J	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW13-ROX-011615	1/16/2015		29.09	NE	<0.01	0.00046 J	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW13-ROX-041415	4/14/2015	25.57 - 35.57	30.71	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
MW-14	MW14-ROX-080312	8/3/2012	33.42 - 43.42	NM	NE	<0.005	0.0131	<0.005		<0.005	0.0015 J	0.0027 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW14-ROX-103112	10/31/2012		32.02	NE	<0.005 UJ	0.00093	<0.005		<0.005	<0.005	0.0028 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW14-ROX-011813	1/18/2013		33.05	NE	<0.005	0.0017	<0.005		<0.005	0.0014 J	0.0032 J	0.0011 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW14-ROX-041113	4/11/2013		33.31	NE	<0.01	0.0125 J	<0.005		<0.01	0.0021 J	0.0048 J	0.0016 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW14-ROX-071213	7/12/2013		30.36	NE	<0.01	0.00064	<0.005		<0.005	0.00066 J	0.002 J	0.0013 J	<0.005	<0.001 UJ	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW14-ROX-101013	10/10/2013		30.80	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	0.0013 J	0.0012 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0011 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW14-ROX-012914	1/29/2014		33.67	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	0.0013 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW14-ROX-041114	4/11/2014		34.30	NE	<0.01	0.0017	<0.005		<0.005	<0.005	<0.005	0.00046 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW14-ROX-070714	7/7/2014		32.82	NE	<0.01 UJ	<0.0005	<0.005		<0.005	<0.005	0.00042 J	0.00047 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW14-ROX-101414	10/14/2014		31.65	NE	<0.01 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	0.00063 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW14-ROX-011615	1/16/2015		33.58	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	0.00053 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW14-ROX-041415	4/14/2015	33.42 - 43.42	35.16	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
MW-16	MW16-ROX-012313	1/23/2013	37.06 - 47.06	43.05	NE	<0.005	0.00057 J	<0.005		0.0029 J	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025 UJ
	MW16-ROX-040813	4/8/2013		43.39	NE	<0.005 UJ	<0.00058 U	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW16-ROX-070813	7/8/2013		40.62	NE	<0.01	<0.00062 U	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW16-ROX-100813	10/8/2013		41.62	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW16-ROX-011514	1/15/2014		43.76	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW16-ROX-040914	4/9/2014		44.63	NE	<0.01	0.00034 J	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW16-ROX-071014	7/10/2014		43.15	NE	<0.01 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002 UJ	<0.001	<0.002 UJ	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025 UJ
	MW16-ROX-100714	10/7/2014		42.27	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW16-ROX-011315	1/13/2015		43.59	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW16-ROX-040915	4/9/2015	37.06 - 47.06	44.87	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
MW-22	MW22-ROX-012313	1/23/2013	37.88 - 47.88	41.80	NE	<0.25	2.12	<0.25		<0.295 U	<0.25	<0.25	<0.25	<0.25	<0.05	<0.05	<0.1	<0.05	<0.1	<0.25	<0.25	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.025	<1.3 UJ
	MW22-ROX-012313-DUP	1/23/2013		41.80	NE	<0.25	2.09	<0.25		<0.31 U	<0.25	<0.25	<0.25	<0.25	<0.05	<0.05	<0.1	<0.05	<0.1	<0.25	<0.25	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.025	<1.3 UJ
	MW22-ROX-040513	4/5/2013		42.23	NE	<0.005 UJ	1.5	<0.005		<0.005	0.0413 J	0.0142 J	0.0171 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0122 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW22-ROX-071113	7/11/2013		39.35	NE	<0.01 UJ	1.19	<0.005		<0.005 UJ	<0.005	0.0116	0.0142	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0087	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	
	MW22-ROX-071113-DUP	7/11/2013		39.35	NE	<0.01 UJ	1.11	<0.005		<0.005 UJ	<0.005	0.0116	0.0148	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0087	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	
	MW22-ROX-100913	10/9/2013		40.39	NE	<0.01	1.33	<0.005		<0.005	0.0286	0.012	0.0167	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.01	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW22-ROX-100913-DUP	10/9/2013		40.39	NE	<0.01	1.39	<0.005		<0.005	0.0276	0.0118	0.0163	<0.005	<0.001	<0.001	0.0018 J	<0.001	<0.002	<0.005	0.0095	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW22-ROX-012014	1/20/2014		42.49	NE	<0.01	1.47	<0.005		0.0804	0.0357	0.0128	0.0147	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0094	<0.001	<0.001	<0.001	0.0028	<0.002	<0.002	<0.0005	<0.025
	MW22-ROX-012014-DUP	1/20/2014		42.49	NE	<0.01	1.58	<0.005		0.0815	0.0355	0.0127	0.0146	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0094	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW22-ROX-041014	4/10/2014		43.15	NE	0.0911 J	1.7	<0.005		0.0334	0.0331	0.0128	0.0152	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0094	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW22-ROX-041014-DUP	4/10/2014		43.15	NE	<0.01 UJ	1.56	<0.005		0.0287	0.0319	0.0123	0.0144	<0.005	<0.001	0.00046 J	<0.002	<0.001	<0.002	<0.005	0.0089	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW22-ROX-071414	7/14/2014		41.85	NE	<0.01	1.76	<0.005		0.0185 J	0.0349 J	0.013 J	0.0137 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0085 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW22-ROX-101014	10/10/2014		41.43	NE	<0.1 UJ	1.62	<0.05		<0.05	0.0165 J	0.0066 J	0.0096 J	<0.05	<0.01	<0.01	<0.02	<0.01	<0.02	<0.05	0.0045 J	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.005	<0.25
	MW22-ROX-011615	1/16/2015		42.19	NE	<0.1	1.51	<0.05		<0.05	0.0373 J	0.0133 J	0.0152 J	<0.05	<0.01	<0.01	<0.02	<0.01	<0.02	<0.05	0.0117 J	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.005	<0.25
	MW22-ROX-041415	4/14/2015	37.88 - 47.88	43.71	NE	<0.01	1.62	<0.005		<0.005	0.0112	0.0105	0.0123	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0078	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						VOCs																						
						Acetone	Benzene	Bromobenzene	Butane	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	4-Chlorotoluene	Cymene (p-Isopropyltoluene)	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,1-Dichloroethane	Dichloromethane (Methylene chloride)	1,2-Dichloropropane	trans-1,3-Dichloropropene	1,4-Dioxane
			Screening Values (mg/L)			6.3 [1]	0.005 [1]	0.056 [3]		4.2 [1]	0.35 [3]			0.7 [1]	0.005 [1]	0.1 [1]		0.07 [1]				0.6 [2]		0.075 [2]	1.4 [1]	0.005 [2]	0.005 [2]	0.001 [2]	0.0077 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																							
MW-23	MW23-ROX-012615	1/26/2015	29.02 - 39.02	30.90	NE	<0.025	<0.001	<0.001		<0.005	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.2
	MW23-ROX-040815	4/8/2015		32.24	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
MW-24	MW24-ROX-040513	4/5/2013	38.89 - 48.89	43.39	NE	<0.005	0.0029	<0.005		<0.01	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW24-ROX-071113	7/11/2013		40.35	NE	<0.0157 UJ	<0.0005	<0.005		<0.005 UJ	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	
	MW24-ROX-100913	10/9/2013		41.27	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW24-ROX-011514	1/15/2014		43.47	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW24-ROX-040914	4/9/2014		44.13	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW24-ROX-071114	7/10/2014		42.97	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW24-ROX-100814	10/8/2014		42.16	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW24-ROX-011315	1/13/2015		43.17	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW24-ROX-040915	4/9/2015	38.89 - 48.89	44.45	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
MW-25	MW25-ROX-102114	10/21/2014	35.59 - 45.59	36.44	NE	<20	501	<10		<10	<10	<10	<10	<10	<2	<2	<4	<2	<4	<10	<10	<2	<2	<2	<2	<4	<4	<1	<50
	MW25-ROX-012215	1/22/2015		38.45	NE	<2.5	62.8	<1.3		<1.3	<1.3	<1.3	<1.3	<1.3	<0.25	<0.25	<0.5	<0.25	<0.5	<1.3	<1.3	<0.25	<0.25	<0.25	<0.25	<0.5	<0.5	<0.13	<6.3
	MW25-ROX-042115	4/21/2015	35.59 - 45.59	39.71	NE	<0.5	78.7	<0.25		<0.25	<0.25	<0.25	<0.25	<0.25	<0.05	<0.05	<0.1	<0.05	<0.1	<0.25	<0.25	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.025	<1.3
MW-26	MW26-ROX-102114	10/21/2014	38.15 - 48.15	39.43	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW26-ROX-011215	1/12/2015		41.09	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW26-ROX-040815	4/8/2015	38.15 - 48.15	42.52	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
MW-27	MW27-ROX-102114	10/21/2014	39.79 - 49.79	41.57	NE	<0.01	0.00033 J	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW27-ROX-011515	1/15/2015		42.06	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW27-ROX-041015	4/10/2015	39.79 - 49.79	43.22	NE	0.0027 J	0.00035 J	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
MW-28	MW28-ROX-102114	10/21/2014	33.61 - 43.61	36.44	NE	<0.01	0.0081	<0.005		<0.005	<0.005	0.00083 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.00049 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW28-ROX-011515	1/15/2015		41.14	NE	<0.01	0.0541	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	MW28-ROX-041415	4/14/2015	33.61 - 43.61	42.34	NE	<0.01	0.0189	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
P-54	P54-ROX-080212	8/2/2012	38.00 - 63.00	38.95	NE	<0.005 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	
	P54-ROX-103012	10/30/2012		40.70	NE	<0.005 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P54-ROX-011113	1/11/2013		41.56	NE	<0.005	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P54-ROX-041013	4/10/2013		41.80	NE	<0.01	0.172	<0.005		<0.01	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P54-ROX-050313	5/3/2013		41.80	NE	<0.01 UJ	0.0028	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P54-ROX-071113	7/11/2013		39.07	NE	<0.01 UJ	<0.0005	<0.005		<0.005 UJ	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	
	P54-ROX-100813	10/8/2013		39.94	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P54-ROX-011514	1/15/2014		42.20	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P54-ROX-040914	4/9/2014		42.80	NE	<0.01	0.00081	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P54-ROX-071114	7/10/2014		41.71	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P54-ROX-100814	10/8/2014		40.88	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P54-ROX-011415	1/14/2015		41.79	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P54-ROX-041015	4/10/2015	38.00 - 63.00	43.20	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
P-55	P55-ROX-012113	1/21/2013	40.43 - 50.43	43.60	NE	<0.25	0.571	<0.05		<0.25	0.0533	0.011 J	<0.05	<0.05	<0.05	<0.05	<0.1	<0.01	<0.1	<0.05	<0.05	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.01	
	P55-ROX-012113	1/21/2013		43.60	NE	<0.005	0.538	<0.005		<0.253 U	0.0203	0.0143	0.0013 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0055	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P55-ROX-041513	4/15/2013		43.63	NE	<0.02 UJ	0.434	<0.01		<0.01	0.0052 J	0.0196	<0.01	<0.01	<0.002	<0.002	<0.004	<0.002	<0.004	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.004	<0.004	<0.001	<0.05
	P55-ROX-071613	7/16/2013		40.06	NE	<0.01	0.573	<0.005	0.88	<0.005	0.0256	0.0155	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0065	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P55-ROX-101013	10/10/2013		41.67	NE	<0.01	0.757	<0.005		<0.005	0.0239	0.0147	0.0013 J	<0.005	<0.001	<0.001	0.005	<0.001	0.0017 J	<0.005	0.0066	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						VOCs																							
						Acetone	Benzene	Bromobenzene	Butane	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	4-Chlorotoluene	Cymene (p-Isopropyltoluene)	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,1-Dichloroethane	Dichloromethane (Methylene chloride)	1,2-Dichloropropane	trans-1,3-Dichloropropene	1,4-Dioxane
			Screening Values (mg/L)			6.3 [1]	0.005 [1]	0.056 [3]		4.2 [1]	0.35 [3]			0.7 [1]	0.005 [1]	0.1 [1]		0.07 [1]				0.6 [2]		0.075 [2]	1.4 [1]	0.005 [2]	0.005 [2]	0.001 [2]	0.0077 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																							
P-56	P56-ROX-080612	8/6/2012	40.82 - 65.82	43.60	NE	<0.025 UJ	0.164	<0.025		<0.025 UJ	<0.025	<0.025	<0.025	<0.025	<0.005	<0.005	<0.01	<0.005	<0.01	<0.025	<0.025	<0.005	<0.005	<0.005	<0.005	<0.01 UJ	<0.01	<0.0025	
	P56-ROX-103112	10/31/2012		44.80	NE	<0.005 UJ	0.176	<0.005		<0.005	<0.005	0.005	0.0021 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0041 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P56-ROX-011713	1/17/2013		45.65	NE	<0.025	0.191	<0.025		<0.025	0.0031 J	<0.025	<0.025	<0.025	<0.005	<0.005	<0.01	<0.005	<0.01	<0.025	<0.025	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.0025	<0.13
	P56-ROX-041213	4/12/2013		46.12	NE	<0.02 U	0.131	<0.01		<0.01	<0.01	0.0142	<0.01	<0.01	<0.002	<0.002	<0.004	<0.002	<0.004	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.004	<0.004	<0.001	<0.05
	P56-ROX-071513	7/15/2013		43.25	NE	<0.156 U	0.131	<0.005		<0.005	0.0141	0.0072	0.0038 J	<0.005	<0.001	<0.001	0.0047	<0.001	<0.002	<0.005	0.0061	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P56-ROX-101013	10/10/2013		44.48	NE	<0.01	0.14	<0.005		<0.005	0.0088	0.005	0.0018 J	<0.005	<0.001	<0.001	0.0038	<0.001	<0.002	<0.005	0.0046 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	0.001	<0.025
	P56-ROX-012214	1/22/2014		46.35	NE	<0.01	0.0895	<0.005		<0.005	0.0033 J	0.0023 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0018 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P56-ROX-041414	4/14/2014		47.32	NE	<0.01	0.128	<0.005		<0.005	0.0069	0.0046 J	0.0014 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0034 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P56-ROX-070814	7/8/2014		45.97	NE	0.0626 J	0.127 J	<0.005		0.0132 J	0.0159 J	0.0073 J	0.0034 J J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0058 J	<0.001	<0.001	<0.001	0.0018 J	<0.002	<0.002	<0.0005	<0.025 UJ
	P56-ROX-101314	10/13/2014		45.05	NE	<0.01 UJ	0.107	<0.005		<0.005	0.0062	0.004 J	0.0012 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0035 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P56-ROX-011915	1/19/2015		46.58	NE	<0.01	0.0991	<0.005		<0.005	0.004 J	0.0037 J	0.00077 J	0.004 J	<0.001	<0.001	<0.002	<0.001	0.0045	<0.005	0.003 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P56-ROX-041515	4/15/2015	40.82 - 65.82	48.05	NE	<0.01	0.0965	<0.005		<0.005	0.0028 J	0.0042 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0033 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
P-57	P57-ROX-080612	8/6/2012	40.46 - 65.46	43.53	NE	<0.25 UJ	99.4	<0.25		<0.25 UJ	<0.25	<0.25	<0.25	<0.25	<0.05	<0.05	<0.1	<0.05	<0.1	<0.25	<0.25	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.025	
	P57-ROX-080612-DUP	8/6/2012		43.53	NE	<0.005 UJ	106	<0.005		<0.005 UJ	<0.005	0.0107	0.0124	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0109	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	
	P57-ROX-110512	11/5/2012		44.98	NE	<2.5	142	<2.5		<2.5	<2.5	<2.5	<2.5	<2.5	<0.5	<0.5	<1	<0.5	<1	<2.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.25	<13
	P57-ROX-012913	1/29/2013		45.92	NE	<2.5	114	<2.5		<2.5	<2.5	<2.5	<2.5	<2.5	<0.5	1.43	<1	<0.5	<1	<2.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.25	<13
	P57-ROX-041113	4/11/2013		46.29	NE	<5	141	<2.5		<5	<2.5	<2.5	<2.5	<2.5	<0.5	<0.5	<1	<0.5	<1	<2.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.25	<13
	P57-ROX-071613	7/16/2013		43.38	NE	<0.01	254	<0.005		<0.005	0.0143 J	0.0131 J	0.0103 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0119 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P57-ROX-101413	10/14/2013		44.38	NE	<0.01	288	<0.005		<0.005	0.0129	0.0116	0.0163	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0113	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P57-ROX-020314	2/3/2014		46.57	NE	<10	261	<5		<5	<5	<5	<5	<5	<1	<1	<2	<1	<2	<5	<5	<1	<1	<1	<1	<2	<2	<0.5	<25
	P57-ROX-041514	4/15/2014		46.70	NE	<0.01 UJ	384	<0.005		0.0055	0.0151	0.0131	0.0147	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0114	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P57-ROX-070814	7/8/2014		45.95	NE	0.0497 J	384	<0.005 UJ		<0.005 UJ	0.011 J	0.0091 J	0.0066 J	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.002 UJ	<0.001 UJ	<0.002 UJ	<0.005 UJ	0.0081 J	<0.001 UJ	<0.001 UJ	<0.001 UJ	<0.001 UJ	<0.002 UJ	<0.002 UJ	<0.0005 UJ	<0.025 UJ
	P57-ROX-070814-DUP	7/8/2014		45.95	NE	0.0441 J	377	<0.005 UJ		0.0086 J	0.0114 J	0.0097 J	0.007 J	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.002 UJ	<0.001 UJ	<0.002 UJ	<0.005 UJ	0.0085 J	<0.001 UJ	<0.001 UJ	<0.001 UJ	<0.001 UJ	<0.002 UJ	<0.002 UJ	<0.0005 UJ	<0.025 UJ
	P57-ROX-101414-DUP	10/14/2014		45.00	NE	<20 UJ	220	<10		<10	<10	<10	<10	<10	<2	<2	<4	<2	<4	<10	<10	<2	<2	<2	<2	<4	<4	<1	<50
	P57-ROX-101414	10/14/2014		45.00	NE	<20 UJ	255	<10		<10	<10	<10	<10	<10	<2	<2	<4	<2	<4	<10	<10	<2	<2	<2	<2	<4	<4	<1	<50
	P57-ROX-012315	1/23/2015	44.19 - 54.19	47.52	NE	<5	107	<2.5		<2.5	<2.5	<2.5	<2.5	<2.5	<0.5	<0.5	<1	<0.5	<1	<2.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.25	<13
	P57-ROX-042015	4/20/2015	44.19 - 54.19	48.73	NE	<0.5	134	<0.25		<0.25	<0.25	<0.25	<0.25	<0.25	<0.05	<0.05	<0.1	<0.05	<0.1	<0.25	<0.25	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.025	<1.3
P-58	P58-ROX-080612	8/6/2012	40.21 - 65.21	41.63	NE	<0.1 UJ	313	<0.1		<0.1 UJ	<0.1	<0.1	0.0317 J	<0.1	<0.02	<0.02	<0.04	<0.02	<0.04	<0.1	<0.1	<0.02	<0.02	<0.02	<0.02	<0.04	<0.04	<0.01	
	P58-ROX-080612-DUP	8/6/2012		41.63	NE	<0.05	308	<0.05		<0.05	<0.05	0.0176 J	0.0339 J	<0.05	<0.01	<0.01	<0.02	<0.01	<0.02	<0.05	0.0118 J	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.005	<0.25
	P58-ROX-110612	11/6/2012		43.09	NE	<0.5 UJ	415	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.1 UJ	<0.1	<0.2	<0.1	<0.2	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.05	<2.5
	P58-ROX-121012	12/10/2012		43.09	NE																								
	P58-ROX-012213	1/22/2013		44.21	NE	<5	552	<5		<5	<5	<5	<5	<5	<1	<1	<2	<1	<2	<5	<5	<1	<1	<1	<1	<2	<2	<0.5	<25
	P58-ROX-041113	4/11/2013		44.40	NE	<20	532	<10		<20	<10	<10	<10	<10	<2	<2	<4	<2	<4	<10	<10	<2	<2	<2	<2	<4	<4	<1	<50
	P58-ROX-071613	7/16/2013		41.49	NE	<0.01	398	<0.005		<0.005	0.0239	0.0215	0.0532	<0.005	<0.001	0.0017	<0.002	<0.001	<0.002	<0.005	0.0152	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P58-ROX-101413	10/14/2013		42.19	NE	<0.01	647	<0.005		<0.005	0.023	0.0235	0.0483	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0143	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P58-ROX-020314	2/3/2014		44.66	NE	<10	496	<5		<5	<5	<5	<5	<5	<1	<1	<2	<1	<2	<5	<5	<1	<1	<1	<1	<2	<2	<0.5	<25
	P58-ROX-041514	4/15/2014		45.66	NE	<0.01 UJ	782	<0.005		0.0056 J	0.0216 J	0.0185 J	0.0396 J	<0.005	<0.001	0.0013 J	<0.002	<0.001	<0.002	<0.005	0.0116 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P58-ROX-071814	7/18/2014		43.80	NE	<20	406	<10		<10	<10	<10	<10	<10	<2	<2	<4	<2	<4	<10	<10	<2	<2	<2	<2	<4	<4	<1	<25 UJ
	P58-ROX-101514	10/15/2014		43.14	NE	<5	493	<2.5		<2.5	<2.5	<2.5	<2.5	<2.5	<0.5	<0.5	<1	<0.5	<1	<2.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.25	<13
	P58-ROX-012315	1/23/2015		45.32	NE	<10	304	<5		<5	<5	<5	<5	<5	<1	<1	<2	<1	<2	<5	<5	<1	<1	<1	<1	<2	<2	<0.5	<25
	P58-ROX-042015	4/20/2015	40.21 - 65.21	46.67	NE	<0.1	325	<0.05		<0.05	0.0087 J	0.0094 J	0.0242 J	<0.05	<0.01	<0.01	<0.02	<0.01	<0.02	<0.05	0.0051 J	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.005	<0.25

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						VOCs																								
						Acetone	Benzene	Bromobenzene	Butane	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	4-Chlorotoluene	Cymene (p-Isopropyltoluene)	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,1-Dichloroethane	Dichloromethane (Methylene chloride)	1,2-Dichloropropane	trans-1,3-Dichloropropene	1,4-Dioxane
			Screening Values (mg/L)			6.3 [1]	0.005 [1]	0.056 [3]		4.2 [1]	0.35 [3]			0.7 [1]	0.005 [1]	0.1 [1]		0.07 [1]				0.6 [2]		0.075 [2]	1.4 [1]	0.005 [2]	0.005 [2]	0.001 [2]	0.0077 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																								
P-59	P59-ROX-080212	8/2/2012	47.91 - 72.91	44.07	NE	<0.1 UJ	11	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.02	<0.02	<0.04	<0.02	<0.04	<0.1	<0.1	<0.02	<0.02	<0.02	<0.02	<0.04	<0.04	<0.01	
	P59-ROX-110212	11/2/2012		45.98	NE	<0.5 UJ	10.3	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.2	<0.1	<0.2	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.05	<2.5
	P59-ROX-110212-DUP	11/2/2012		45.98	NE	<0.5 UJ	10.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.2	<0.1	<0.2	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.05	<2.5
	P59-ROX-013013	1/30/2013		46.60	NE	<0.25	12.1	<0.25		<0.25	<0.25	<0.25	<0.25	<0.25	<0.05	<0.05	<0.1	<0.05	<0.1	<0.25	<0.25	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.025	<1.3
	P59-ROX-041213	4/12/2013		46.95	NE	<0.5 UJ	15	<0.25		<0.25	<0.25	0.289	<0.25	<0.25	<0.05	<0.05	<0.1	<0.05	<0.1	<0.25	<0.25	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.025	<1.3
	P59-ROX-041213-DUP	4/12/2013		46.95	NE	<0.5 UJ	13.4	<0.25		<0.25	<0.25	0.288	<0.25	<0.25	<0.05	<0.05	<0.1	<0.05	<0.1	<0.25	<0.25	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.025	<1.3
	P59-ROX-071613	7/16/2013		44.13	NE	<0.01	10.2	<0.005		<0.005	0.0213 J	0.0068 J	0.0027 J J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0046 J J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P59-ROX-101013	10/10/2013		45.50	NE	<0.01	14.7	<0.005		<0.005	0.0224	<0.005	0.0024 J	<0.005	<0.001	<0.001	0.0034	<0.001	<0.002	<0.005	0.0051	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P59-ROX-020314	2/3/2014		47.35	NE	<0.2	15.9	<0.1		<0.1	0.0165 J	<0.1	<0.1	<0.1	<0.02	<0.02	<0.04	<0.02	<0.04	<0.1	<0.1	<0.02	<0.02	<0.02	<0.02	<0.04	<0.04	<0.01	<0.5
	P59-ROX-041514	4/15/2014		48.60	NE	<0.01 UJ	14.8	<0.005		0.0253	0.0181	0.0035 J	0.0014 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0029 J	<0.001	<0.001	<0.001	0.0023	<0.002	<0.002	<0.0005	<0.025
	P59-ROX-070814	7/8/2014		47.69	NE	0.057 J	12.4	<0.005		0.0169 J	0.0251 J	0.0073 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0046 J J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025 UJ
	P59-ROX-101414	10/14/2014		46.18	NE	<0.01 UJ	12	<0.005		<0.005	0.0278 J	0.0097 J	0.0024 J J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0043 J J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P59-ROX-011915	1/19/2015		47.42	NE	<1	13.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.2	<0.1	<0.2	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.05	<2.5
	P59-ROX-041615	4/16/2015	47.91 - 72.91	48.83	NE	<0.1	9.43	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.02	<0.01	<0.02	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.005	<0.25
P-66	P66-ROX-080312	8/3/2012	34.72 - 59.72	30.51	NE	<0.005	0.0994	<0.005		<0.005	0.0118	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P66-ROX-103112	10/31/2012		34.75	NE	<0.005	0.223	<0.005		<0.005	0.0145	0.02	0.0054	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P66-ROX-011813	1/18/2013		35.70	NE	<0.005	0.0896	<0.005		<0.005	0.0129	0.0227	0.0087	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P66-ROX-041113	4/11/2013		36.03	NE	<0.01	0.0444	<0.005		<0.01	0.0199	0.0249	0.0104	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0093	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P66-ROX-071213	7/12/2013		33.20	NE	<0.01	0.187	<0.005		<0.005	0.0146	0.0221	0.006	<0.005	<0.001 UJ	0.00059 J	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P66-ROX-101013	10/10/2013		33.66	NE	0.0095 J	0.0646	<0.005		<0.005	0.0141	0.0186	0.0067	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P66-ROX-110713	11/7/2013		33.66	NE	<0.01	0.03	<0.005		<0.005	0.0088	0.0102	0.0071	<0.005	<0.001	0.0007 J	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P66-ROX-012914	1/29/2014		36.39	NE	<0.01	0.008	<0.005		<0.005	0.016	0.0205	0.0053	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P66-ROX-041114	4/11/2014		37.10	NE	<0.01	0.0052	<0.005		<0.005	0.0129	0.0168	0.0041 J	<0.005	<0.001	0.00052 J	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P66-ROX-070714	7/7/2014		35.60	NE	<0.01 UJ	0.0429	<0.005		<0.005	0.0112	0.0147	0.0023 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P66-ROX-101414	10/14/2014		34.48	NE	<0.01 UJ	0.0212	<0.005		<0.005	0.0135	0.0173	0.0036 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P66-ROX-011615	1/16/2015		36.62	NE	<0.01	0.0083	<0.005		<0.005	0.0162	0.021	0.0048 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P66-ROX-011615-DUP	1/16/2015		36.62	NE	<0.01	0.0076	<0.005		<0.005	0.0147	0.0198	0.0045 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P66-ROX-041415	4/14/2015	34.72 - 59.72	38.27	NE	<0.01	0.0223	<0.005		<0.005	0.0127	0.0181	0.0039 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P66-ROX-041415-DUP	4/14/2015		38.27	NE	<0.01	0.0214	<0.005		<0.005	0.0124	0.0177	0.004 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
P-74	P74-ROX-080612	8/6/2012	44.43 - 69.43	40.71	NE	<0.05 UJ	2.46	<0.05		<0.05 UJ	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.02	<0.01	<0.02	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.005	
	P74-ROX-110112	11/1/2012		41.72	NE	<0.1	3.5	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.02	<0.02	<0.04	<0.02	<0.04	<0.1	<0.1	<0.02	<0.02	<0.02	<0.02	<0.04	<0.04	<0.01	<0.5
	P74-ROX-011713	1/17/2013		42.65	NE	<0.1	4.99	<0.1		<0.1	0.0143 J	<0.1	<0.1	<0.1	<0.02	<0.02	<0.04	<0.02	<0.04	<0.1	<0.1	<0.02	<0.02	<0.02	<0.02	<0.04	<0.04	<0.01	<0.5
	P74-ROX-041113	4/11/2013		42.83	NE	<0.01	0.144	<0.005		<0.01	0.0026 J	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P74-ROX-071513	7/15/2013		40.11	NE	<0.0046 U	0.117	<0.005		<0.005	0.0088	0.002 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0017 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P74-ROX-101413	10/14/2013		41.72	NE	<0.01	1.55	<0.005		<0.005	0.0158	0.003 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0031 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P74-ROX-012414	1/24/2014		43.35	NE	<0.01	4.45	<0.005		<0.005	0.0252	0.0031 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0031 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P74-ROX-041514	4/15/2014		44.74	NE	0.0398 J	0.0349	<0.005		<0.005	0.0013 J	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P74-ROX-070814	7/8/2014		43.02	NE	<0.01 UJ	0.309	<0.005		<0.005	0.0138	0.0014 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0018 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025 UJ
	P74-ROX-101414	10/14/2014		41.48	NE	<0.01 UJ	0.00068	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P74-ROX-011915	1/19/2015		43.47	NE	<0.01	3.13	<0.005		<0.005	0.0163	0.0022 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0029 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P74-ROX-041515	4/15/2015	44.43 - 69.43	44.61	NE	<0.01	0.032	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.00033 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						VOCs																								
						Acetone	Benzene	Bromobenzene	Butane	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	4-Chlorotoluene	Cymene (p-Isopropyltoluene)	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,1-Dichloroethane	Dichloromethane (Methylene chloride)	1,2-Dichloropropane	trans-1,3-Dichloropropene	1,4-Dioxane
			Screening Values (mg/L)			6.3 [1]	0.005 [1]	0.056 [3]		4.2 [1]	0.35 [3]			0.7 [1]	0.005 [1]	0.1 [1]		0.07 [1]				0.6 [2]		0.075 [2]	1.4 [1]	0.005 [2]	0.005 [2]	0.001 [2]	0.0077 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																								
P-93A	P93A-ROX-080912	8/9/2012	48.17 - 63.17	43.66	NE	<1.63 U	87	<0.005		<0.005	0.0027 J	0.0048 J	0.0128	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0022 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P93A-ROX-110712	11/7/2012		45.00	NE	<0.5 UJ	148	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.2	<0.1	<0.2	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.05	<2.5
	P93A-ROX-110712-DUP	11/7/2012		45.00	NE	<0.5 UJ	156	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.2	<0.1	<0.2	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.05	<2.5
	P93A-ROX-012313	1/23/2013		45.89	NE	<2.5	101	<2.5		<2.5	<2.5	<2.5	<2.5	<2.5	<0.5	<0.5	<1	<0.5	<1	<2.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.25	<13 UJ
	P93A-ROX-012313-DUP	1/23/2013		45.89	NE	<2.5	98.5	<2.5		<2.5	<2.5	<2.5	<2.5	<2.5	<0.5	<0.5	<1	<0.5	<1	<2.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.25	<13 UJ
	P93A-ROX-041113	4/11/2013		46.29	NE	<5	120	<2.5		<5	<2.5	<2.5	<2.5	<2.5	<0.5	<0.5	<1	<0.5	<1	<2.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.25	<13
	P93A-ROX-041113-DUP	4/11/2013		46.29	NE	<5	120	<2.5		<5	<2.5	<2.5	<2.5	<2.5	<0.5	<0.5	<1	<0.5	<1	<2.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.25	<13
	P93A-ROX-071813	7/18/2013		43.25	NE	<0.0053 U	89.1	<0.005		<0.005	<0.005	0.0056	0.0916	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0024 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	<0.05
	P93A-ROX-101113	10/11/2013		44.18	NE	<0.01 UJ	197	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0025 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P93A-ROX-012914	1/29/2014		46.53	NE	<5	136	<2.5		<2.5	<2.5	<2.5	<2.5	<2.5	<0.5	<0.5	<1	<0.5	<1	<2.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.25	<13
	P93A-ROX-041714	4/17/2014		47.41	NE	<5	132	<2.5		<2.5	<2.5	<2.5	<2.5	<2.5	<0.5	<0.5	<1	<0.5	<1	<2.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.25	<13
	P93A-ROX-071814	7/18/2014		45.70	NE	<10	170	<5		<5	<5	<5	<5	<5	<1	<1	<2	<1	<2	<5	<5	<1	<1	<1	<1	<2	<2	<0.5	<13 UJ
	P93A-ROX-071814-DUP	7/18/2014		45.70	NE	<10	174	<5		<5	<5	<5	<5	<5	<1	<1	<2	<1	<2	<5	<5	<1	<1	<1	<1	<2	<2	<0.5	<13 UJ
	P93A-ROX-101514	10/15/2014		45.06	NE	<5	293	<2.5		<2.5	<2.5	<2.5	<2.5	<2.5	<0.5	<0.5	<1	<0.5	<1	<2.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.25	<13
	P93A-ROX-101514-DUP	10/15/2014		45.06	NE	<5	277	<2.5		<2.5	<2.5	<2.5	<2.5	<2.5	<0.5	<0.5	<1	<0.5	<1	<2.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.25	<13
	P93A-ROX-012715	1/27/2015	43.07 - 53.07	46.05	NE	<0.025 UJ	168	<0.001 UJ		<0.005 UJ	0.0023 J	0.0069 J	0.0186 J	<0.002 UJ	<0.001 UJ	<0.001 UJ	0.00078 J J	<0.001 UJ	<0.002 UJ	<0.001 UJ	0.0064 J	<0.001 UJ	<0.001 UJ	<0.001 UJ	<0.001 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.2 UJ
	P93A-ROX-041715	4/17/2015	43.07 - 53.07	47.02	NE	<0.01	139	<0.005		<0.005	0.00077 J	0.0048 J	0.014	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0036 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
P-93B	P93B-ROX-080912	8/9/2012	74.60 - 76.60	43.69	NE	<0.0672 U	317	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P93B-ROX-110712	11/7/2012		45.05	NE	<0.5 UJ	162 J	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.2	<0.1	<0.2	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.05	<2.5
	P93B-ROX-110712-DUP	11/7/2012		45.05	NE	<0.5 UJ	413 J	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.2	<0.1	<0.2	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.05	<2.5
	P93B-ROX-012313	1/23/2013		45.89	NE	<5	415	<5		<5	<5	<5	<5	<5	<1	<1	<2	<1	<2	<5	<5	<1	<1	<1	<1	<2	<2	<0.5	<25 UJ
	P93B-ROX-041113	4/11/2013		46.32	NE	<5	618	<2.5		<5	<2.5	<2.5	<2.5	<2.5	<0.5	<0.5	<1	<0.5	<1	<2.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.25	<13
	P93B-ROX-071813	7/18/2013		43.30	NE	<0.01	296	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	<0.05
	P93B-ROX-101613	10/16/2013		44.43	NE	<20	187	<10		<10	<10	<10	<10	<10	<2	<2	<4	<2	<4	<10	<10	<2	<2	<2	<2	<4	<4	<1	<50
	P93B-ROX-101613-DUP	10/16/2013		44.43	NE	<20	180	<10		<10	<10	<10	<10	<10	<2	<2	<4	<2	<4	<10	<10	<2	<2	<2	<2	<4	<4	<1	<50
	P93B-ROX-012814	1/28/2014		46.58	NE	<10	242	<5		<5	<5	<5	<5	<5	<1	<1	<2	<1	<2	<5	<5	<1	<1	<1	<1	<2	<2	<0.5	<25
	P93B-ROX-012814-DUP	1/28/2014		46.58	NE	<10	293	<5		<5	<5	<5	<5	<5	<1	<1	<2	<1	<2	<5	<5	<1	<1	<1	<1	<2	<2	<0.5	<25
	P93B-ROX-041714	4/17/2014		47.46	NE	<5	134	<2.5		<2.5	<2.5	<2.5	<2.5	<2.5	<0.5	<0.5	<1	<0.5	<1	<2.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.25	<13
	P93B-ROX-041714-DUP	4/17/2014		47.46	NE	<5	126	<2.5		<2.5	<2.5	<2.5	<2.5	<2.5	<0.5	<0.5	<1	<0.5	<1	<2.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.25	<13
	P93B-ROX-071714	7/17/2014		45.75	NE	<0.01 UJ	175	<0.005 UJ		<0.005 UJ	<0.005 UJ	<0.005 UJ	0.00042 J J	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.002 UJ	<0.001 UJ	<0.002 UJ	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.001 UJ	<0.001 UJ	<0.002 UJ	<0.002 UJ	<0.0005 UJ	<0.025 UJ
	P93B-ROX-101514	10/15/2014		45.15	NE	<5 UJ	241	<2.5		<2.5	<2.5	<2.5	<2.5	<2.5	<0.5	<0.5	<1	<0.5	<1	<2.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.25	<13
	P93B-ROX-012315	1/23/2015		47.24	NE	<10	564	<5		<5	<5	<5	<5	<5	<1	<1	<2	<1	<2	<5	<5	<1	<1	<1	<1	<2	<2	<0.5	<25
	P93B-ROX-012315-DUP	1/23/2015		47.24	NE	<10	623	<5		<5	<5	<5	<5	<5	<1	<1	<2	<1	<2	<5	<5	<1	<1	<1	<1	<2	<2	<0.5	<25
	P93B-ROX-021915	2/19/2015		47.24	NE	<250	625	<0.5		<2.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<1	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<100
	P93B-ROX-041615	4/16/2015		48.42	NE	<0.01	400	<0.005		<0.005	<0.005	<0.005	0.001 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P93B-ROX-041615-DUP	4/16/2015		48.42	NE	<10	388	<5		<5	<5	<5	<5	<5	<1	<1	<2	<1	<2	<5	<5	<1	<1	<1	<1	<2	<2	<0.5	<25

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						VOCs																							
						Acetone	Benzene	Bromobenzene	Butane	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	4-Chlorotoluene	Cymene (p-Isopropyltoluene)	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,1-Dichloroethane	Dichloromethane (Methylene chloride)	1,2-Dichloropropane	trans-1,3-Dichloropropene	1,4-Dioxane
					Screening Values (mg/L)	6.3 [1]	0.005 [1]	0.056 [3]		4.2 [1]	0.35 [3]			0.7 [1]	0.005 [1]	0.1 [1]		0.07 [1]				0.6 [2]		0.075 [2]	1.4 [1]	0.005 [2]	0.005 [2]	0.001 [2]	0.0077 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																							
P-93C	P93C-ROX-080912	8/9/2012	94.26 - 96.26	43.57	NE	<0.0056 U	0.00084	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P93C-ROX-110812	11/8/2012		45.12	NE	<0.005	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P93C-ROX-012313	1/23/2013		45.78	NE	<0.005	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025 UJ
	P93C-ROX-041213	4/12/2013		46.21	NE	<0.0056 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P93C-ROX-071813	7/18/2013		43.31	NE	<0.01	101	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	<0.05
	P93C-ROX-080813	8/8/2013		43.31	NE	<0.5	19.1	<0.25		<0.25	<0.25	<0.25	<0.25	<0.25	<0.05	<0.05	<0.1	<0.05	<0.1	<0.25	<0.25	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.025	<1.3
	P93C-ROX-101613	10/16/2013		44.31	NE	<0.01	1.4	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P93C-ROX-012414	1/24/2014		46.44	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P93C-ROX-041714	4/17/2014		47.34	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P93C-ROX-071714	7/17/2014		45.61	NE	<0.01	1.55	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P93C-ROX-101514	10/15/2014		44.99	NE	<0.01	0.00075	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P93C-ROX-011915	1/19/2015	92.47 - 97.47	46.77	NE	<1	102	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.2	<0.1	<0.2	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.05	<2.5
	P93C-ROX-021915	2/19/2015		46.77	NE	<25	75.4	<1		<5	<1	<1	<1	<2	<1	<1	<2	<1	<2	<1	<1	<1	<1	<1	<1	<5	<1	<1	<200
	P93C-ROX-041615	4/16/2015	92.47 - 97.47	48.22	NE	<1	55.3	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.2	<0.1	<0.2	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.05	<2.5
P-93D	P93D-ROX-080812	8/8/2012	125.75 - 127.75	43.71	NE	<0.005 UJ	0.0134	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P93D-ROX-110812	11/8/2012		NM	NE	<0.005	0.049	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P93D-ROX-012213	1/22/2013		44.21	NE	<0.005	0.106	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P93D-ROX-041113	4/11/2013		46.37	NE	<0.01	<0.0005	<0.005		<0.01	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P93D-ROX-071213	7/12/2013		43.51	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001 UJ	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P93D-ROX-101113	10/11/2013		44.24	NE	<0.01	0.0014	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P93D-ROX-013114	1/31/2014		46.62	NE	<0.01	0.0012	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	0.00062 J	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	0.0044	<0.0005	<0.025
	P93D-ROX-041414	4/14/2014		47.54	NE	<0.01	0.0022	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	0.00069 J	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	0.0164	<0.0005	<0.025
	P93D-ROX-071714	7/17/2014		45.78	NE	<0.01	0.00064	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P93D-ROX-101514	10/15/2014		45.14	NE	<0.1	36.4	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.02	<0.01	<0.02	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.005	<0.25
	P93D-ROX-110414	11/4/2014		45.14	NE	<0.01	19.9	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	0.0079	<0.0005	<0.025
	P93D-ROX-012315	1/23/2015		42.28	NE	<2.5	62.6	<1.3		<1.3	<1.3	<1.3	<1.3	<1.3	<0.25	<0.25	<0.5	<0.25	<0.5	<1.3	<1.3	<0.25	<0.25	<0.25	<0.25	<0.5	<0.5	<0.13	<6.3
	P93D-ROX-021915	2/19/2015		42.28	NE	<130	240	<2.5		<13	<2.5	<2.5	<2.5	<5	<2.5	<2.5	<5	<2.5	<5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<13	<2.5	<2.5	<500
	P93D-ROX-042015	4/20/2015	125.75 - 127.75	48.52	NE	<1	131	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.2	<0.1	<0.2	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.05	<2.5
P-114	P114-ROX-080912	8/9/2012	32.67 - 52.67	29.13	NE	<0.0756 U	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P114-ROX-110912	11/9/2012		30.90	NE	<0.0144 UJ	<0.0005	<0.005		<0.005 UJ	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P114-ROX-012313	1/23/2013		30.22	NE	<0.005	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025 UJ
	P114-ROX-041513	4/15/2013		31.80	NE	<0.0059 UJ	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P114-ROX-071813	7/18/2013		27.22	NE	<0.251 U	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P114-ROX-071813-DUP	7/18/2013		27.22	NE	<0.245 U	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P114-ROX-101713	10/17/2013		29.43	NE	0.0047 J	0.00074	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P114-ROX-012814	1/28/2014		32.11	NE	0.142	0.0013	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P114-ROX-042114	4/21/2014		32.22	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P114-ROX-071814	7/18/2014		30.87	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025 UJ
	P114-ROX-101714	10/17/2014		29.43	NE	<0.01	<0.0005	<0.005		<0.005	0.0052 J	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	0.0006 J J	<0.002	<0.0005	<0.025
	P114-ROX-012115	1/21/2015		31.53	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	P114-ROX-041715	4/17/2015	32.67 - 52.67	NM	NE	<0.01	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						VOCs																							
						Acetone	Benzene	Bromobenzene	Butane	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	4-Chlorotoluene	Cymene (p-Isopropyltoluene)	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,1-Dichloroethane	Dichloromethane (Methylene chloride)	1,2-Dichloropropane	trans-1,3-Dichloropropene	1,4-Dioxane
					Screening Values (mg/L)	6.3 [1]	0.005 [1]	0.056 [3]		4.2 [1]	0.35 [3]			0.7 [1]	0.005 [1]	0.1 [1]		0.07 [1]				0.6 [2]		0.075 [2]	1.4 [1]	0.005 [2]	0.005 [2]	0.001 [2]	0.0077 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																							
ROST-3-MW (ROST-3-PZ)	ROST3PZ-ROX-080712	8/7/2012	40.00 - 50.00	39.00	NE	<0.005	0.0041	<0.005		<0.005	<0.005	<0.005	0.00072 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	ROST3PZ-ROX-110112	11/1/2012		40.82	NE	<0.005	0.0052	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	ROST3MW-ROX-012313	1/23/2013	37.81 - 47.81	41.50	NE	<0.005	0.0051 J	<0.005		<0.005	0.0028 J	0.0013 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0011 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025 UJ
	ROST3MW-ROX-040513	4/5/2013		42.24	NE	<0.005 UJ	0.0605	<0.005		<0.005	<0.005	0.0011 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0012 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	ROST3MW-ROX-071113	7/11/2013		39.50	NE	<0.01 UJ	0.0125	<0.005		<0.005 UJ	<0.005	0.0014 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0014 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	
	ROST3-MW-ROX-100913	10/9/2013		40.16	NE	<0.01	0.0033	<0.005		<0.0164	0.00073 J	<0.005	<0.005	<0.005	<0.001	<0.001	0.0034	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	ROST3MW-ROX-011714	1/17/2014		42.20	NE	<0.01	0.004	<0.005		<0.005	0.0012 J	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	ROST3MW-ROX-041014	4/10/2014		42.80	NE	<0.01	0.0075	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	ROST3MW-ROX-071414	7/14/2014		41.88	NE	<0.01	0.0058	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	ROST3MW-ROX-100914	10/9/2014		41.31	NE	<0.01 UJ	0.003	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	ROST3MW-ROX-011515	1/15/2015		41.83	NE	<0.01	0.0022	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	ROST3MW-ROX-041315	4/13/2015	37.81 - 47.81	43.43	NE	0.0251	0.0057	<0.005		<0.005	<0.005	<0.005	<0.005	0.00037 J	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
ROST-4-PZ(C)	ROST4PZ-C-ROX-072512	7/25/2012	34.95 - 44.95	39.10	NE	<0.005	0.0849	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	ROST4PZC-ROX-102912	10/29/2012		40.75	NE	<0.005 UJ	0.0033	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	ROST4PZ(C)-ROX-011113	1/11/2013		41.42	NE	<0.005	<0.0005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	ROST4PZC-ROX-041013	4/10/2013		42.27	NE	<0.01	0.0153 J	<0.005		<0.01	<0.005	<0.005	<0.005	<0.005	<0.001 UJ	<0.001 UJ	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001 UJ	<0.001 UJ	<0.001 UJ	<0.001	<0.002	<0.002 UJ	<0.0005 UJ	<0.025
	ROST4PZC-ROX-071113	7/11/2013		40.18	NE	<0.01 UJ	0.0497	<0.005		<0.005 UJ	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	
	ROST4PZC-ROX-100913	10/9/2013		39.91	NE	<0.01	0.00066	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	ROST4PZC-ROX-011714	1/17/2014		41.92	NE	<0.01	0.0015	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	ROST4PZC-ROX-041014	4/10/2014		42.05	NE	<0.01	0.0019	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	ROST4C-ROX-071114	7/10/2014		42.22	NE	<0.01	0.0751	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	ROST4PZC-ROX-100914	10/9/2014		41.30	NE	<0.01 UJ	0.039	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	ROST4PZC-ROX-011515	1/15/2015		41.65	NE	0.016	0.0013	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	ROST4PZC-ROX-041315	4/13/2015	34.95 - 44.95	43.00	NE	<0.01	0.0694	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
T-12	T12-ROX-080212	8/2/2012	46.46 - 72.46	41.92	NE	<0.05 UJ	1.64	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.02	<0.01	<0.02	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.005	
	T12-ROX-110512	11/5/2012		43.91	NE	<0.05	1.71	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.02	<0.01	<0.02	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.005	<0.25
	T12-ROX-011813	1/18/2013		44.50	NE	<0.025	2.03	<0.025		<0.0795 U	0.0056 J	0.0036 J	<0.025	<0.025	<0.005	<0.005	<0.01	<0.005	<0.01	<0.025	<0.025	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.0025	<0.13 UJ
	T12-ROX-041513	4/15/2013		44.99	NE	<0.1 UJ	1.61	<0.05		<0.05	<0.05	0.0595	<0.05	<0.05	<0.01	<0.01	<0.02	<0.01	<0.02	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.005	<0.25
	T12-ROX-071613	7/16/2013		42.33	NE	<0.01	1.65	<0.005		<0.005	0.0069 J	0.003 J J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0025 J J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	T12-ROX-101513	10/15/2013		43.73	NE	0.0803	2.02	<0.025		0.0246 J	0.0098 J	0.0038 J	<0.025	<0.025	<0.005	<0.005	<0.01	<0.005	<0.01	<0.025	<0.025	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.0025	<0.13
	T12-ROX-012414	1/24/2014		45.26	NE	<0.01	2.48	<0.005		<0.005	0.0083	0.0029 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	T12-ROX-041514	4/15/2014		46.72	NE	<0.01 UJ	2.07	<0.005		0.017	0.0062	0.0024 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0018 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025
	T12-ROX-070814	7/8/2014		45.13	NE	0.0658 J	2.14	<0.005		0.0094	0.0096	0.0039 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0024 J	<0.001	<0.001	<0.001	0.0022	<0.002	<0.002	<0.0005	<0.025 UJ
	T12-ROX-101714	10/17/2014		44.40	NE	<0.1	1.83	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.02	<0.01	<0.02	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.005	<0.25
	T12-ROX-011915	1/19/2015		45.27	NE	<0.1	2.02	<0.05		<0.05	0.0115 J	<0.05	<0.05	<0.05	<0.01	<0.01	<0.02	<0.01	<0.02	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.005	<0.25
	T12-ROX-041515	4/15/2015	46.46 - 72.46	46.73	NE	<0.01	1.69	<0.005		<0.005	0.0094	0.0045 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0025 J	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.0005	<0.025

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						VOCs																								
						Ethylbenzene	Ethyl methacrylate	Hexachlorobutadiene	Hexane	2-Hexanone (Methyl N-Butyl Ketone)	Isopentane	Isopropylbenzene (Cumene)	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene	Styrene	Tetrachloroethene	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,2-Trichloroethane	Trichloroethene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl acetate	m,p-Xylenes	o-Xylenes	Xylenes (total)
			Screening Values (mg/L)			0.7 [1]		0.007 [3]	0.42 [3]	0.035 [3]		0.7 [1]	0.56 [3]	0.07 [1]	0.14 [1]	0.7 [3]	0.1 [1]	0.005 [1]	1.0 [1]	0.0056 [3]	0.07 [1]	0.005 [1]	0.005 [1]			0.07 [3]	7.0 [2]	10 [1]		10 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																								
MW-01	MW1-ROX-073012	7/30/2012	48.80 - 58.80	39.39	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0022	0.0001 J	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW1-ROX-102612	10/26/2012		41.22	NE																									
	MW1-ROX-121712	12/17/2012		41.22	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0022	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW1-ROX-011013	1/10/2013		41.89	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0015	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW1-ROX-040913	4/9/2013		42.55	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0012	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW1-ROX-070813	7/8/2013		39.56	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0049	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW1-ROX-100313	10/3/2013		40.28	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0013	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW1-ROX-011414	1/14/2014		42.77	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0018	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW1-ROX-040714	4/7/2014		43.28	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW1-ROX-070914	7/9/2014		42.09	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0035	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW1-ROX-100614	10/6/2014		41.1	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.00082 J	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	MW1-ROX-011215	1/12/2015		42.73	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.00084 J	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW1-ROX-040615	4/6/2015	48.80 - 58.80	44.11	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.00059 J	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
MW-02	MW2-ROX-073012	7/30/2012	49.87 - 59.87	40.60	NE	0.952	<0.005	<0.005		<0.005		0.0818	<0.005	<0.001	0.0554	0.116	<0.005	<0.001	0.0374	<0.005	<0.005	<0.001	<0.001		0.338	0.135	<0.005	1.27	0.0906	1.34
	MW2-ROX-102612	10/26/2012		42.35	NE	0.763	<0.025	<0.025		<0.025		0.0764	<0.025	0.0115	0.0821	0.104	<0.025	<0.005	0.0216	<0.025	<0.025	<0.005	<0.005		0.299	0.129	<0.025	0.878	0.052	0.93
	MW2-ROX-011113	1/11/2013		42.94	NE	0.676	<0.01	<0.01		<0.01		0.0879	<0.01	<0.002	0.0768	0.121	<0.01	<0.002	0.0093	<0.01	<0.01	<0.002	<0.002		0.219	0.105	<0.01	0.685	0.0287	0.713
	MW2-ROX-040913	4/9/2013		43.70	NE	0.91	<0.025	<0.025		<0.025		0.085	<0.025	<0.005	0.0578	0.11	<0.025	<0.005	0.0073	<0.025	<0.025	<0.005	<0.005		0.338	0.155	<0.025	1.01	0.0454	1.05
	MW2-ROX-071113	7/11/2013		40.82	NE	1.57	<0.005	<0.005		<0.005 UJ		0.0931	<0.005	0.0062	0.114	0.127	<0.005	<0.001	0.11	<0.005	<0.005	<0.001	<0.001		0.522	0.175	<0.005 UJ	1.88	0.174	1.88
	MW2-ROX-100813	10/8/2013		41.73	NE	0.942	<0.005	<0.005		0.0079		0.0983	<0.005	0.0032	0.0939	0.132	<0.005	<0.001	0.0164	<0.005	<0.005	<0.001	<0.001		0.368	0.174	0.0768	0.912	0.0519	0.912
	MW2-ROX-012014	1/20/2014		44.00	NE	0.426	<0.005	<0.005		<0.005		0.102	<0.005	<0.001	0.0663	0.133	<0.005	<0.001	0.0099	<0.005	<0.005	<0.001	<0.001		0.264	0.156	<0.005	0.486	0.0304	0.516
	MW2-ROX-041014	4/10/2014		44.66	NE	0.478	<0.005	<0.005		<0.005		0.0816	<0.005	<0.001	0.0474	0.106	<0.005	<0.001	0.0072	<0.005	<0.005	<0.001	<0.001		0.181	0.121	<0.005	0.444	0.0275	0.472
	MW2-ROX-071414	7/14/2014		43.13	NE	0.955	<0.005	<0.005		<0.005		0.0966 J	<0.005	<0.001	0.0792 J	0.112 J	<0.005	<0.001	0.0113 J	<0.005	<0.005	<0.001	<0.001		0.341 J	0.15 J	<0.005	0.764	0.0845	0.804
	MW2-ROX-101014	10/10/2014		42.49	NE	0.386	<0.01	<0.01		<0.01 UJ		0.0675	<0.01	<0.002	0.0512	0.0867	<0.01	<0.002	0.006	<0.01	<0.01	<0.002	<0.002		0.135	0.0901	<0.01	0.26	0.0183	0.278
	MW2-ROX-011615	1/16/2015		44.1	NE	0.358	<0.005	0.0031 J		0.0039 J		0.0823	0.0061	<0.001	0.0626	0.107	0.00052 J	<0.001	0.0121	0.0051	0.0044 J	<0.001	0.0015		0.0895	0.102	<0.005	0.207	0.0206	0.228
	MW2-ROX-041315	4/13/2015	49.87 - 59.87	45.56	NE	0.547	<0.005	<0.005		<0.005		0.0613	<0.005	0.0013	0.068	0.0802	<0.005	<0.001	0.0103	<0.005	<0.005	<0.001	<0.001		0.185	0.0882	<0.005	0.549	0.0495	0.598
MW-03	MW3-ROX-072712	7/27/2012	34.67 - 44.67	26.60	NE	<0.001	<0.005	<0.005		<0.005 UJ		<0.005	<0.005	<0.001	<0.00011	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	MW3-ROX-102512	10/25/2012		28.39	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0027	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW3-ROX-010913	1/9/2013		29.35	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0008 J	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	0.007	<0.001	<0.001	<0.001
	MW3-ROX-040813	4/8/2013		29.74	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW3-ROX-071113	7/11/2013		26.32	NE	<0.001	<0.005	<0.005		<0.005 UJ		0.0049 J	<0.005	0.0035	<0.005	0.0055	<0.005	<0.001	0.0013	<0.005	<0.005	<0.001	<0.001		0.0013 J	<0.005	<0.005 UJ	0.0028	<0.001	0.0028
	MW3-ROX-100813	10/8/2013		27.38	NE	0.0025	<0.005	<0.005		<0.005		<0.005	<0.005	0.00075 J	<0.005	0.0021 J	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	0.0197	0.0011	<0.001	0.0011
	MW3-ROX-011614	1/16/2014		29.91	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW3-ROX-040914	4/9/2014		30.50	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW3-ROX-071114	7/10/2014		29.05	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW3-ROX-100914	10/9/2014		28.18	NE	<0.001	<0.005	<0.005		<0.005		0.0004 J	<0.005	0.0031	<0.005	0.00053 J	<0.005	<0.001	0.00046 J	<0.005	<0.005	<0.001	<0.001		0.0012 J	<0.005	<0.005 UJ	0.00095 J	<0.001	<0.00095 U
	MW3-ROX-011515	1/15/2015		29.65	NE	0.00039 J	<0.005	<0.005		<0.005		0.00065 J	<0.005	0.0101	<0.005	0.0018 J	<0.005	<0.001	0.00062 J	<0.005	<0.005	<0.001	<0.001		0.00071 J	0.00031 J	<0.005	0.0014	<0.001	0.0015
	MW3-ROX-041015	4/10/2015	34.67 - 44.67	31.16	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0012	<0.005	0.00042 J	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	0.00046 J

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						VOCs																								
						Ethylbenzene	Ethyl methacrylate	Hexachlorobutadiene	Hexane	2-Hexanone (Methyl N-Butyl Ketone)	Isopentane	Isopropylbenzene (Cumene)	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene	Styrene	Tetrachloroethene	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,2-Trichloroethane	Trichloroethene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl acetate	m,p-Xylenes	o-Xylenes	Xylenes (total)
			Screening Values (mg/L)			0.7 [1]		0.007 [3]	0.42 [3]	0.035 [3]		0.7 [1]	0.56 [3]	0.07 [1]	0.14 [1]	0.7 [3]	0.1 [1]	0.005 [1]	1.0 [1]	0.0056 [3]	0.07 [1]	0.005 [1]	0.005 [1]			0.07 [3]	7.0 [2]	10 [1]		10 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																								
MW-04	MW4-ROX-072512	7/25/2012	46.06 - 56.06	37.63	NE	0.00082 J	<0.005	<0.005 UJ		<0.005		0.0061	<0.005	0.015	<0.0001	0.0071	<0.005	<0.001	0.0418	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	0.0221	0.0042	0.0262
	MW4-ROX-072512-Dup	7/25/2012		37.63	NE	0.00083 J	<0.005	<0.005 UJ		<0.005		0.0063	<0.005	0.0154	<0.0001	0.0072	<0.005	<0.001	0.0427	<0.005	<0.005	<0.001	<0.001		0.00068 J	0.0057	<0.005	0.0214	0.0043	0.0257
	MW4-ROX-102912	10/29/2012		39.45	NE	<0.002	<0.01	<0.01		<0.01		0.0029 J	<0.01	0.0324	<0.01	0.0033 J	<0.01	<0.002	0.0175	<0.01	<0.01	<0.002	<0.002		<0.01	<0.01	<0.01	0.0114	<0.002	0.0114
	MW4-ROX-011113	1/11/2013		40.20	NE	0.00052 J	<0.005	<0.005		<0.005		0.0012 J	<0.005	0.0654	<0.005	0.0026 J	<0.005	<0.001	0.0075	<0.005	<0.005	<0.001	<0.001		0.0019 J	0.0024 J	<0.005	0.0056	<0.001	0.0056
	MW4-ROX-011113-DUP	1/11/2013		40.20	NE	0.00056 J	<0.005	<0.005		<0.005		0.0014 J	<0.005	0.0681	<0.005	0.003 J	<0.005	<0.001	0.0083	<0.005	<0.005	<0.001	<0.001		0.0019 J	0.0026 J	<0.005	0.006	<0.001	0.006
	MW4-ROX-030413	3/4/2013		40.20	NE	<0.1	<0.5	<0.5		<0.5		<0.5	<0.5	0.112	<0.5	<0.5	<0.5	<0.1	<0.1	<0.5	<0.5	<0.1	<0.1		<0.5	<0.5	<0.5	<0.1	<0.1	<0.1
	MW4-ROX-040913	4/9/2013		40.90	NE	<0.002	<0.01	<0.01		<0.01		<0.01	<0.01	0.112	<0.01	<0.01	<0.01	<0.002	0.0057	<0.01	<0.01	<0.002	<0.002		<0.01	<0.01	<0.01	0.0052	<0.002	0.0062
	MW4-ROX-040913-DUP	4/9/2013		40.90	NE	0.00081 J	<0.005	<0.005		<0.005		<0.005	<0.005	0.125	<0.005	0.004 J	<0.005	<0.001	0.0076	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	0.0073	0.0011	0.0084
	MW4-ROX-071713	7/17/2013		37.61	NE	0.0015	<0.005	<0.005		0.0041 J		0.0067	<0.005	0.0559	<0.005	0.008	<0.005	<0.001	0.0381	<0.005	<0.005	0.00085 J	<0.001		0.0012 J	<0.005	0.0392 J	0.0302	0.0052	0.0353
	MW4-ROX-101613	10/16/2013		38.80	NE	<0.01	<0.05 UJ	<0.05		<0.05		<0.05	<0.05	0.0333 J	<0.05	<0.05	<0.05	<0.01	<0.01	<0.05	<0.05	<0.01	<0.01		<0.05	<0.05	<0.05 UJ	<0.01	<0.01	0.0058 J
	MW4-ROX-013014	1/30/2014		41.09	NE	0.00048 J	<0.005	<0.005		<0.005		0.0021 J	<0.005	<0.001	<0.005	0.0026 J	<0.005	<0.001	0.0037	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	0.0132	0.0049	0.0181
	MW4-ROX-041614	4/16/2014		41.91	NE	<0.001	<0.005	<0.005		<0.005		0.00059 J	<0.005	<0.001	<0.005	0.00081 J	<0.005	<0.001	0.00099 J	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	0.0027	0.00039 J	0.0031
	MW4-ROX-071614	7/16/2014		40.18	NE	<0.01	<0.005	<0.005		<0.005		<0.05	<0.005	<0.001	<0.05	<0.05	<0.005	<0.001	0.006 J	<0.005	<0.005	<0.001	<0.001		<0.05	<0.05	<0.005	<0.01	<0.01	0.0055 J
	MW4-ROX-101614	10/16/2014		39.49	NE	<0.005	<0.025	<0.025		<0.025		0.0026 J	<0.025	0.0379	<0.025	<0.025	<0.025	<0.005	<0.005	<0.025 UJ	<0.025	<0.005	<0.005		0.0037 J	<0.025	<0.025 UJ	0.0086	0.0022 J	0.0108
	MW4-ROX-012115	1/21/2015		41.27	NE	<0.001	<0.005	<0.005		<0.005		0.0012 J	<0.005	0.0536	<0.005	0.00093 J	<0.005	<0.001	0.0024	<0.005	<0.005	<0.001	<0.001		0.00045 J	<0.005	<0.005	0.006	0.0013	0.0074
	MW4-ROX-042115	4/21/2015	46.06 - 56.06	42.58	NE	0.00051 J	<0.005	<0.005		<0.005		0.0012 J	<0.005	<0.001	<0.005	0.0013 J	<0.005	<0.001	0.0024	<0.005	<0.005	<0.001	<0.001		0.00045 J	<0.005	<0.005	0.0042	0.0011	0.0053
MW-05	MW5-ROX-072512	7/25/2012	33.97 - 43.97	26.18	NE	<0.001	<0.005	<0.005 UJ		<0.005		0.0066	<0.005	0.013	0.00032	0.0018 J	<0.005	<0.001	0.0032	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	0.008	0.0017	0.0097
	MW5-ROX-102912	10/29/2012		28.16	NE	<0.001	<0.005	<0.005		<0.005		0.002 J	<0.005	0.0219	<0.005	<0.005	<0.005	<0.001	0.0018	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	0.0018	<0.001	0.0018
	MW5-ROX-011113	1/11/2013		28.75	NE	<0.001	<0.005	<0.005		<0.005		0.00086 J	<0.005	0.0295	<0.005	<0.005	<0.005	<0.001	0.0008 J	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW5-ROX-040913	4/9/2013		29.41	NE	<0.001	<0.005	<0.005		<0.005		0.00085 J	<0.005	0.0427	<0.005	<0.005	<0.005	<0.001	0.002	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	0.001	<0.001	0.0014
	MW5-ROX-070913	7/9/2013		26.04	NE	<0.001	<0.005	<0.005		<0.005		0.0268	<0.005	0.0121	<0.005	0.0132	<0.005	<0.001	0.0029	<0.005	<0.005	0.0018	<0.001		<0.005	<0.005	<0.005 UJ	0.0079	0.0018	0.0097
	MW5-ROX-100813	10/8/2013		26.97	NE	<0.001	<0.005	<0.005		<0.005		0.0045 J	<0.005	0.0221	<0.005	<0.005	<0.005	<0.001	0.002	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	0.0129	0.0044	0.00097 J	0.0054
	MW5-ROX-011714	1/17/2014		29.59	NE	<0.001	<0.005	<0.005		<0.005		0.00097 J	<0.005	0.0282	<0.005	<0.005	<0.005	<0.001	0.0014	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	0.0081	0.0045	0.0127
	MW5-ROX-041014	4/10/2014		30.09	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0344	0.001 J	<0.005	<0.005	<0.001	0.0013	<0.005	<0.005	<0.001	<0.001		0.00052 J	<0.005	<0.005	0.0013	0.00095 J	0.0023
	MW5-ROX-071414	7/14/2014		28.59	NE	<0.001	<0.005	<0.005		<0.005		0.00049 J	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	0.0016	<0.005	<0.005	<0.001	<0.001		0.00033 J	<0.005	<0.005	0.002	0.00073 J	0.0027
	MW-5-ROX-100914	10/9/2014		27.75	NE	<0.001	<0.005	<0.005		<0.005 UJ		0.0012 J	<0.005	0.019	<0.005	<0.005	<0.005	<0.001	0.0015	<0.005	<0.005	<0.001	<0.001		0.00058 J	<0.005	<0.005	0.0027	0.0012 J	0.0039
	MW5-ROX-011515	1/15/2015		29.34	NE	<0.001	<0.005	<0.005		<0.005		0.0057	<0.005	0.0215	<0.005	0.0018 J	<0.005	<0.001	0.0014	<0.005	<0.005	<0.001	<0.001		0.00037 J	0.00031 J	<0.005	0.0076	0.0015	0.009
	MW5-ROX-041315	4/13/2015	33.97 - 43.97	30.97	NE	0.0005 J	<0.005	<0.005		<0.005		0.0076	<0.005	0.0349	<0.005	0.0056	<0.005	<0.001	0.00057 J	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	0.0088	0.00051 J	0.0093
MW-06A	MW6A-ROX-080112	8/1/2012	34.83 - 44.83	28.36	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0019	<0.0001	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6A-ROX-102412	10/24/2012		30.06	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6A-ROX-011413	1/14/2013		31.00	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6A-ROX-040313	4/3/2013		31.62	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6A-ROX-070913	7/9/2013		28.25	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0027	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	MW6A-ROX-070913-DUP	7/9/2013		28.25	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0025	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	MW6A-ROX-100713	10/7/2013		28.87	NE	<0.001	<0.005	<0.005		<0.005 UJ		<0.005	<0.005	0.0131	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6A-ROX-100713-DUP	10/7/2013		28.87	NE	<0.001	<0.005	<0.005		<0.005 UJ		<0.005	<0.005	0.0132	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6A-ROX-011614	1/16/2014		31.62	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0108	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6A-ROX-011614-DUP	1/16/2014		31.62	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0103	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6A-ROX-040814	4/8/2014		32.16	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.00086 J	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6A-ROX-040814-DUP	4/8/2014		32.16	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6A-ROX-071014	7/10/2014		30.75	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0148	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6A-ROX-100814	10/8/2014		29.84	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0082	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6A-ROX-011415	1/14/2015		31.54	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6A-ROX-040715	4/7/2015	34.83 - 44.83	33.08	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0077	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						VOCs																							
						Ethylbenzene	Ethyl methacrylate	Hexachlorobutadiene	Hexane	2-Hexanone (Methyl N-Butyl Ketone)	Isopentane	Isopropylbenzene (Cumene)	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene	Styrene	Tetrachloroethene	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,2-Trichloroethane	Trichloroethene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl acetate	m,p-Xylenes	o-Xylenes	Xylenes (total)
			Screening Values (mg/L)			0.7 [1]		0.007 [3]	0.42 [3]	0.035 [3]		0.7 [1]	0.56 [3]	0.07 [1]	0.14 [1]	0.7 [3]	0.1 [1]	0.005 [1]	1.0 [1]	0.0056 [3]	0.07 [1]	0.005 [1]	0.005 [1]			0.07 [3]	7.0 [2]	10 [1]		10 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																							
MW-06B	MW6B-ROX-080112	8/1/2012	64.05 - 69.05	28.39	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0122	<0.0001	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6B-ROX-102412	10/24/2012		30.11	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0091	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6B-ROX-011713	1/17/2013		31.11	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0166	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6B-ROX-040313	4/3/2013		31.68	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0132	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6B-ROX-070913	7/9/2013		28.25	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0069	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	MW6B-ROX-100713	10/7/2013		28.93	NE	<0.001	<0.005	<0.005		<0.005 UJ		<0.005	<0.005	0.0113	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6B-ROX-011614	1/16/2014		31.67	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0069	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6B-ROX-040814	4/8/2014		32.21	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0047	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6B-ROX-071014	7/10/2014		30.81	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0054	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6B-ROX-100814	10/8/2014		29.87	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0031	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6B-ROX-011415	1/14/2015		31.59	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6B-ROX-040715	4/7/2015	64.05 - 69.05	33.10	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0052	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6B-ROX-040715-DUP	4/7/2015		33.10	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0054	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
MW-06C	MW6C-ROX-080112	8/1/2012	84.95 - 89.95	28.15	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.0001	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6C-ROX-102412	10/24/2012		27.85	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6C-ROX-011713	1/17/2013		30.88	NE	<0.001 UJ	<0.005 UJ	<0.005 UJ		<0.005 UJ		<0.005 UJ	<0.005 UJ	0.0012 J	<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ		<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.001 UJ
	MW6C-ROX-040313	4/3/2013		31.41	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0022	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6C-ROX-070913	7/9/2013		28.03	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	MW6C-ROX-100713	10/7/2013		28.72	NE	<0.001	<0.005	<0.005		<0.005 UJ		<0.005	<0.005	0.00075 J	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6C-ROX-011614	1/16/2014		31.48	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.00068 J	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6C-ROX-040814	4/8/2014		32.01	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6C-ROX-071014	7/10/2014		30.60	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6C-ROX-100814	10/8/2014		29.67	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.00057 J	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6C-ROX-011415	1/14/2015		31.41	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0037	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6C-ROX-040915	4/9/2015	84.95 - 89.95	32.80	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
MW-06D	MW6D-ROX-080212	8/2/2012	104.72 - 109.72	30.56	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.0001	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6D-ROX-102412	10/24/2012		29.71	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6D-ROX-011713	1/17/2013		30.75	NE	<0.001 UJ	<0.005 UJ	<0.005 UJ		<0.005 UJ		<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ		<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.001 UJ
	MW6D-ROX-040313	4/3/2013		31.27	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6D-ROX-070913	7/9/2013		27.91	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	MW6D-ROX-100713	10/7/2013		28.58	NE	<0.001	<0.005	<0.005		<0.005 UJ		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6D-ROX-011614	1/16/2014		31.33	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.00061 J	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6D-ROX-040814	4/8/2014		31.85	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.00094 J	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6D-ROX-071014	7/10/2014		31.47	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6D-ROX-071014-DUP	7/10/2014		31.47	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6D-ROX-100814	10/8/2014		29.53	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.00054 J	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6D-ROX-100814-DUP	10/8/2014		29.53	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.00062 J	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6D-ROX-011415	1/14/2015		31.26	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6D-ROX-011415-DUP	1/14/2015		31.26	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW6D-ROX-040715	4/7/2015	104.72 - 109.72	32.74	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						VOCs																								
						Ethylbenzene	Ethyl methacrylate	Hexachlorobutadiene	Hexane	2-Hexanone (Methyl N-Butyl Ketone)	Isopentane	Isopropylbenzene (Cumene)	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene	Styrene	Tetrachloroethene	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,2-Trichloroethane	Trichloroethene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl acetate	m,p-Xylenes	o-Xylenes	Xylenes (total)
			Screening Values (mg/L)			0.7 [1]		0.007 [3]	0.42 [3]	0.035 [3]		0.7 [1]	0.56 [3]	0.07 [1]	0.14 [1]	0.7 [3]	0.1 [1]	0.005 [1]	1.0 [1]	0.0056 [3]	0.07 [1]	0.005 [1]	0.005 [1]			0.07 [3]	7.0 [2]	10 [1]		10 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																								
MW-07	MW7-ROX-080712	8/7/2012	42.92 - 52.92	39.50	NE	0.0619	<0.05	<0.05		<0.05		<0.05	<0.05	<0.01	0.0089	0.0102 J	<0.05	<0.01	0.0629	<0.05	<0.05	<0.01	<0.01		0.1	0.021 J	<0.05	0.12	0.0486	0.169
	MW7-ROX-103012	10/30/2012		41.23	NE	<2	<10	<10		<10		<10	<10	<2	<10	<10	<10	<2	<2	<10	<10	<2	<2		<10	<10	<10	<2	<2	<2
	MW7-ROX-103012-DUP	10/30/2012		41.23	NE	<2	<10	<10		<10		<10	<10	<2	<10	<10	<10	<2	<2	<10	<10	<2	<2		<10	<10	<10	<2	<2	<2
	MW7-ROX-011513	1/15/2013		42.21	NE	<4	<20	<20		<20		<20	<20	<4	<20	<20	<20	<4	<4	<20	<20	<4	<4		<20	<20	<20	<4	<4	<4
	MW7-ROX-011513-DUP	1/15/2013		42.21	NE	<4	<20	<20		<20		<20	<20	<4	<20	<20	<20	<4	<4	<20	<20	<4	<4		<20	<20	<20	<4	<4	<4
	MW7-ROX-041013	4/10/2013		42.70	NE	<2	<10	<10		<10		<10	<10	<2	<10	<10	<10	<2	<2	<10	<10	<2	<2		<10	<10	<10	<2	<2	<2
	MW7-ROX-041013-DUP	4/10/2013		42.70	NE	<2	<10	<10		<10		<10	<10	<2	<10	<10	<10	<2	<2	<10	<10	<2	<2		<10	<10	<10	<2	<2	<2
	MW7-ROX-071713	7/17/2013		39.60	NE	0.2 J	<0.005	<0.005		<0.005		0.0096 J	<0.005	0.0031 J	0.0185 J	0.0173 J	<0.005	<0.001	0.289 J	<0.005	<0.005	<0.001	<0.001		0.117 J	0.0264 J	0.0094 J	0.455 J	0.183 J	0.639 J
	MW7-ROX-101613	10/16/2013		40.64	NE	<2	<10 UJ	<10		<10		<10	<10	<2 UJ	<10	<10	<10	<2	<2	<10	<10	<2	<2		<10	<10	<10 UJ	<2	<2	<2
	MW7-ROX-013014	1/30/2014		42.94	NE	<2.5	<13	<13		<13		<13	<13	<2.5	<13	<13	<13	<2.5	<2.5	<13	<13	<2.5	<2.5		<13	<13	<13	<2.5	<2.5	<2.5
	MW7-ROX-041614	4/16/2014		43.79	NE	<5	<25	<25		<25		<25	<25	<5	<25	<25	<25	<5	<5	<25	<25	<5	<5		<25	<25	<25	<5	<5	<5
	MW7-ROX-071614	7/16/2014		42.05	NE	0.208 J	<0.005	<0.005		<0.005		0.0127 J	<0.005	<0.001	0.0165 J	0.0197 J	<0.005	<0.001	0.224 J	<0.005	<0.005	<0.001	<0.001		0.143 J	0.0324 J	<0.005	0.48 J	0.187 J	0.667 J
	MW7-ROX-071614-DUP	7/16/2014		42.05	NE	0.206 J	<0.005	<0.005		<0.005		0.0131 J	<0.005	<0.001	0.0141 J	0.0194 J	<0.005	<0.001	0.222 J	<0.005	<0.005	<0.001	<0.001		0.142 J	0.0318 J	<0.005	0.465 J	0.181 J	0.647 J
	MW7-ROX-101614	10/16/2014		41.31	NE	<5	<25	<25		<25		<25	<25	<5	<25	<25	<25	<5	<5	<25 UJ	<25	<5	<5		<25	<25	<25 UJ	<5	<5	<5
	MW7-ROX-101614-DUP	10/16/2014		41.31	NE	<5	<25	<25		<25		<25	<25	<5	<25	<25	<25	<5	<5	<25 UJ	<25	<5	<5		<25	<25	<25 UJ	<5	<5	<5
	MW7-ROX-012215	1/22/2015		43.45	NE	<1	<5	<5		<5		<5	<5	<1	<5	<5	<5	<1	<1	<5	<5	<1	<1		<5	<5	<5	<1	<1	<1
	MW7-ROX-012215-DUP	1/22/2015		43.45	NE	<1	<5	<5		<5		<5	<5	<1	<5	<5	<5	<1	<1	<5	<5	<1	<1		<5	<5	<5	<1	<1	<1
	MW7-ROX-042115	4/21/2015	42.92 - 52.92	44.63	NE	0.0822	<0.25	<0.25		<0.25		<0.25	<0.25	<0.05	<0.25	<0.25	<0.25	<0.05	0.295	<0.25	<0.25	<0.05	<0.05		0.0791 J	0.0174 J	<0.25	0.116	0.0357 J	0.152
	MW7-ROX-042115-DUP	4/21/2015		44.63	NE	0.081	<0.25	<0.25		<0.25		<0.25	<0.25	<0.05	<0.25	<0.25	<0.25	<0.05	0.285	<0.25	<0.25	<0.05	<0.05		0.0784 J	0.0173 J	<0.25	0.116	0.0369 J	0.153
MW-08	MW8-ROX-080712	8/7/2012	33.60 - 43.60	30.97	NE	0.249	<0.1	<0.1		<0.1		<0.1	<0.1	0.878	0.0164	0.0191 J	<0.1	<0.02	0.781	<0.1	<0.1	<0.02	<0.02		0.104	0.0299 J	<0.1	0.623	0.246	0.868
	MW8-ROX-080712-DUP	8/7/2012		30.97	NE	0.232	<0.05	<0.05		<0.05		<0.05	<0.05	0.885	0.0164	0.0176 J	<0.05	<0.01	0.729	<0.05	<0.05	<0.01	<0.01		0.0921	0.0265 J	<0.05	0.598	0.235	0.833
	MW8-ROX-103012	10/30/2012		32.32	NE	<1	<5	<5		<5		<5	<5	<1	<5	<5	<5	<1	<1	<5	<5	<1	<1		<5	<5	<5	<1	<1	<1
	MW8-ROX-011513	1/15/2013		33.30	NE	<2	<10	<10		<10		<10	<10	<2	<10	<10	<10	<2	2.09	<10	<10	<2	<2		<10	<10	<10	<2	<2	<2
	MW8-ROX-041013	4/10/2013		33.77	NE	<5	<25	<25		<25		<25	<25	<5	<25	<25	<25	<5	<5	<25	<25	<5	<5		<25	<25	<25	<5	<5	<5
	MW8-ROX-071713	7/17/2013		30.43	NE	0.508	<0.005	<0.005		<0.005		0.0173	<0.005	0.197	0.0335	0.0374	<0.005	<0.001	0.348	<0.005	<0.005	<0.001	<0.001		0.199	0.0598	<0.005 UJ	1.01	0.361	1.3
	MW8-ROX-071713-DUP	7/17/2013		30.43	NE	0.442 J	<0.005	<0.005		<0.005		0.0174	<0.005	0.187	0.0347	0.0383	<0.005	<0.001	0.341	<0.005	<0.005	<0.001	<0.001		0.203	0.0613	<0.005 UJ	0.818 J	0.364	1.05
	MW8-ROX-101613	10/16/2013		31.59	NE	<2	<10 UJ	<10		<10		<10	<10	<2 UJ	<10	<10	<10	<2	<2	<10	<10	<2	<2		<10	<10	<10 UJ	<2	<2	<2
	MW8-ROX-101613-DUP	10/16/2013		31.59	NE	<2	<10 UJ	<10		<10		<10	<10	<2 UJ	<10	<10	<10	<2	<2	<10	<10	<2	<2		<10	<10	<10 UJ	<2	<2	<2
	MW8-ROX-013014	1/30/2014		34.02	NE	<2.5	<13	<13		<13		<13	<13	1.92 J	<13	<13	<13	<2.5	<2.5	<13	<13	<2.5	<2.5		<13	<13	<13	<2.5	<2.5	<2.5
	MW8-ROX-013014-DUP	1/30/2014		34.02	NE	<2.5	<13	<13		<13		<13	<13	1.99 J	<13	<13	<13	<2.5	<2.5	<13	<13	<2.5	<2.5		<13	<13	<13	<2.5	<2.5	<2.5
	MW8-ROX-041614	4/16/2014		34.73	NE	<2	<10	<10		<10		<10	<10	<2	<10	<10	<10	<2	<2	<10	<10	<2	<2		<10	<10	<10	<2	<2	<2
	MW8-ROX-041614-DUP	4/16/2014		34.73	NE	<2	<10	<10		<10		<10	<10	<2	<10	<10	<10	<2	<2	<10	<10	<2	<2		<10	<10	<10	<2	<2	<2
	MW8-ROX-071614	7/16/2014		33.01	NE	0.266	<0.005 UJ	<0.005 UJ		<0.005 UJ		0.0266 J	<0.005 UJ	0.392 J	0.0598 J	0.0606 J	<0.005 UJ	<0.001 UJ	0.108 J	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ		0.226 J	0.0904 J	<0.005 UJ	0.377 J	0.141 J	0.518 J
	MW8-ROX-101614	10/16/2014		32.23	NE	0.305 J	<5	<5		<5		<5	<5	1.19	<5	<5	<5	<1	<1	<5 UJ	<5	<1	<1		<5	<5	<5 UJ	<1	<1	<1
	MW8-ROX-012215	1/22/2015		34.22	NE	0.359 J	<5	<5		<5		<5	<5	0.906 J	<5	<5	<5	<1	0.259 J	<5	<5	<1	<1		<5	<5	<5	<1	<1	0.318 J
	MW8-ROX-042115	4/21/2015	33.60 - 43.60	35.41	NE	0.203	<0.25	<0.25		<0.25		<0.25	<0.25	0.506	<0.25	0.0251 J	<0.25	<0.05	0.325	<0.25	<0.25	<0.05	<0.05		0.0473 J	0.0241 J	<0.25	0.164	0.0552	0.22
MW-09	MW9-ROX-072712	7/27/2012	46.45 - 56.45	41.30	NE	<0.001	<0.005	<0.005		<0.005 UJ		<0.005	<0.005	<0.001	<0.0001	<0.005	<0.005 UJ	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	MW9-ROX-102912	10/29/2012		43.17	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW9-ROX-011113	1/11/2013		43.90	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW9-ROX-040913	4/9/2013		44.67	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW9-ROX-070813	7/8/2013		42.35	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW9-ROX-100313	10/3/2013		42.27	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW9-ROX-011414	1/14/2014		44.47	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW9-ROX-040714	4/7/2014		44.99	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW9-ROX-070914	7/9/2014		44.35	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW9-ROX-100714	10/7/2014		43.52	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	MW9-ROX-011315	1/13/2015		44.21	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW9-ROX-040915	4/9/2015	46.45 - 56.45	45.38	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						VOCs																							
						Ethylbenzene	Ethyl methacrylate	Hexachlorobutadiene	Hexane	2-Hexanone (Methyl N-Butyl Ketone)	Isopentane	Isopropylbenzene (Cumene)	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene	Styrene	Tetrachloroethene	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,2-Trichloroethane	Trichloroethene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl acetate	m,p-Xylenes	o-Xylenes	Xylenes (total)
					Screening Values (mg/L)	0.7 [1]		0.007 [3]	0.42 [3]	0.035 [3]		0.7 [1]	0.56 [3]	0.07 [1]	0.14 [1]	0.7 [3]	0.1 [1]	0.005 [1]	1.0 [1]	0.0056 [3]	0.07 [1]	0.005 [1]	0.005 [1]			0.07 [3]	7.0 [2]	10 [1]		10 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																							
MW-10	MW10-ROX-072712	7/27/2012	44.43 - 54.43	41.21	NE	<0.001	<0.005	<0.005		<0.005 UJ		<0.005	<0.005	<0.001	<0.0001	<0.005	<0.005 UJ	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	MW10-ROX-102612	10/26/2012		43.08	NE																									
	MW10-ROX-121712	12/17/2012		43.08	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	0.00058 J
	MW10-ROX-011013	1/10/2013		44.10	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	0.016	<0.001	<0.001	<0.001
	MW10-ROX-012113	1/21/2013		44.10	NE	<0.005	<0.005	<0.005	<0.02	<0.025		<0.005	<0.025	<0.002	<0.0001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	
	MW10-ROX-040913	4/9/2013		44.60	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW10-ROX-070813	7/8/2013		42.27	NE	<0.001	<0.005	<0.005		<0.005	1.9	<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW10-ROX-100313	10/3/2013		42.38	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW10-ROX-011514	1/15/2014		44.42	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW10-ROX-040714	4/7/2014		45.00	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW10-ROX-070914	7/9/2014		44.35	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW10-ROX-100714	10/7/2014		43.58	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	MW10-ROX-011315	1/13/2015		44.27	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW10-ROX-040815	4/8/2015		45.30	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
MW-11	MW11-ROX-072712	7/27/2012	41.66 - 51.66	38.90	NE	<0.001	<0.005	<0.005		<0.005 UJ		<0.005	<0.005	<0.001	<0.00012	<0.005	<0.005 UJ	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	MW11-ROX-102512	10/25/2012		40.59	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW11-ROX-011013	1/10/2013		41.43	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW11-ROX-040813	4/8/2013		42.02	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW11-ROX-070813	7/8/2013		39.24	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW11-ROX-100713	10/7/2013		39.95	NE	<0.001	<0.005	<0.005		<0.005 UJ		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW11-ROX-011514	1/15/2014		42.16	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW11-ROX-040714	4/7/2014		42.70	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW11-ROX-070914	7/9/2014		41.75	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW11-ROX-100714	10/7/2014		40.89	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	MW11-ROX-011315	1/13/2015		41.93	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW11-ROX-040815	4/8/2015		43.19	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
MW-12	MW12-ROX-072712	7/27/2012	41.92 - 51.92	39.22	NE	<0.001	<0.005	<0.005		<0.005 UJ		<0.005	<0.005	<0.001	<0.00011	<0.005	<0.005 UJ	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	MW12-ROX-102512	10/25/2012		40.95	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW12-ROX-011013	1/10/2013		41.83	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	0.00089 J	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW12-ROX-040813	4/8/2013		42.46	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW12-ROX-070913	7/9/2013		39.28	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	MW12-ROX-100713	10/7/2013		40.22	NE	<0.001	<0.005	<0.005		<0.005 UJ		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW12-ROX-011514	1/15/2014		42.54	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW12-ROX-040814	4/8/2014		43.15	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW12-ROX-070914	7/9/2014		41.97	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW12-ROX-100614	10/6/2014		40.98	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	MW12-ROX-011215	1/12/2015		42.33	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW12-ROX-040615	4/6/2015		43.75	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						VOCs																							
						Ethylbenzene	Ethyl methacrylate	Hexachlorobutadiene	Hexane	2-Hexanone (Methyl N-Butyl Ketone)	Isopentane	Isopropylbenzene (Cumene)	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene	Styrene	Tetrachloroethene	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,2-Trichloroethane	Trichloroethene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl acetate	m,p-Xylenes	o-Xylenes	Xylenes (total)
			Screening Values (mg/L)			0.7 [1]		0.007 [3]	0.42 [3]	0.035 [3]		0.7 [1]	0.56 [3]	0.07 [1]	0.14 [1]	0.7 [3]	0.1 [1]	0.005 [1]	1.0 [1]	0.0056 [3]	0.07 [1]	0.005 [1]	0.005 [1]			0.07 [3]	7.0 [2]	10 [1]		10 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																							
MW-13	MW13-ROX-080812	8/8/2012	25.57 - 35.57	26.67	NE	<0.001 UJ	<0.005 UJ	<0.005 UJ		<0.005 UJ		<0.005 UJ	<0.005 UJ	0.0133 J	<0.0013 U	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ		<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.001 UJ
	MW13-ROX-110812	11/8/2012		25.30	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0093	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW13-ROX-012313	1/23/2013		29.26	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0082	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	MW13-ROX-041213	4/12/2013		29.44	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0093	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW13-ROX-071213	7/12/2013		25.67	NE	<0.001	<0.005	<0.005 UJ		<0.005		<0.005	<0.005	0.0094	<0.005	0.00064 J	<0.005	<0.001 UJ	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	MW13-ROX-100913	10/9/2013		26.94	NE	<0.001	<0.005	<0.005 UJ		<0.005		<0.005	<0.005	0.0072	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW13-ROX-012914	1/29/2014		29.63	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.008	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW13-ROX-041114	4/11/2014		30.15	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0062	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW13-ROX-070714	7/7/2014		28.49	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0091	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW13-ROX-101014	10/10/2014		27.48	NE	<0.001	<0.005	<0.005		<0.005 UJ		<0.005	<0.005	0.0045	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	0.0011
	MW13-ROX-011615	1/16/2015		29.09	NE	0.00097 J	<0.005	<0.005		<0.005		<0.005	<0.005	0.006	<0.005	<0.005	<0.005	<0.001	0.00076 J	<0.005	<0.005	<0.001	<0.001		0.00064 J	<0.005	<0.005	0.0022	0.00072 J	0.003
	MW13-ROX-041415	4/14/2015	25.57 - 35.57	30.71	NE	0.00033 J	<0.005	<0.005		<0.005		<0.005	<0.005	0.0075	<0.005	<0.005	<0.005	<0.001	0.00035 J	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	0.00057 J	0.00024 J	0.00082 J
MW-14	MW14-ROX-080312	8/3/2012	33.42 - 43.42	NM	NE	0.00065 J	<0.005	<0.005		<0.005		0.0173	<0.005	<0.001	0.0013	0.0137	<0.005	<0.001	0.00093 J	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	0.0033	0.00061 J	0.0039
	MW14-ROX-103112	10/31/2012		32.02	NE	<0.001	<0.005	<0.005		<0.005		0.0161	<0.005	<0.001	<0.005	0.0121	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	0.0024	<0.001	0.0024
	MW14-ROX-011813	1/18/2013		33.05	NE	<0.001	<0.005	<0.005		<0.005		0.021	<0.005	<0.001	<0.005	0.0162	<0.005	<0.001	0.00097 J	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	0.0026	<0.001	0.003
	MW14-ROX-041113	4/11/2013		33.31	NE	<0.001	<0.005	<0.005		<0.005		0.0346	<0.005	<0.001	<0.005	0.0206	<0.005	<0.001	0.0014	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	0.0038	<0.001	0.0043
	MW14-ROX-071213	7/12/2013		30.36	NE	<0.001	<0.005	<0.005 UJ		<0.005		0.0168	<0.005	<0.001	<0.005	0.0109	<0.005	<0.001 UJ	0.00059 J	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	0.0026	<0.001	0.0029
	MW14-ROX-101013	10/10/2013		30.80	NE	<0.001	<0.005	<0.005		<0.005		0.0011 J	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		0.00088 J	0.0011 J	<0.005	<0.001	<0.001	<0.001
	MW14-ROX-012914	1/29/2014		33.67	NE	<0.001	<0.005	<0.005		<0.005		0.0036 J	<0.005	<0.001	<0.005	0.002 J	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW14-ROX-041114	4/11/2014		34.30	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW14-ROX-070714	7/7/2014		32.82	NE	<0.001	<0.005	<0.005		<0.005		0.00073 J	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW14-ROX-101414	10/14/2014		31.65	NE	<0.001	<0.005	<0.005		<0.005 UJ		0.00043 J	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	0.00041 J
	MW14-ROX-011615	1/16/2015		33.58	NE	0.00036 J	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	0.00042 J	<0.005	<0.005	<0.001	<0.001		0.00032 J	<0.005	<0.005	0.00072 J	<0.001	0.001
	MW14-ROX-041415	4/14/2015	33.42 - 43.42	35.16	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
MW-16	MW16-ROX-012313	1/23/2013	37.06 - 47.06	43.05	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	MW16-ROX-040813	4/8/2013		43.39	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW16-ROX-070813	7/8/2013		40.62	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW16-ROX-100813	10/8/2013		41.62	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW16-ROX-011514	1/15/2014		43.76	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW16-ROX-040914	4/9/2014		44.63	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW16-ROX-071014	7/10/2014		43.15	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW16-ROX-100714	10/7/2014		42.27	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	MW16-ROX-011315	1/13/2015		43.59	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW16-ROX-040915	4/9/2015	37.06 - 47.06	44.87	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
MW-22	MW22-ROX-012313	1/23/2013	37.88 - 47.88	41.80	NE	3.45	<0.25	<0.25		<0.25		0.126 J	<0.25	<0.05	0.396	0.22 J	<0.25	<0.05	10.5	<0.25	<0.25	<0.05	<0.05		1.23	0.288	<0.25 UJ	7.56	3.73	11.3
	MW22-ROX-012313-DUP	1/23/2013		41.80	NE	3.19	<0.25	<0.25		<0.25		0.124 J	<0.25	<0.05	0.377	0.234 J	<0.25	<0.05	9.06	<0.25	<0.25	<0.05	<0.05		1.26	0.291	<0.25 UJ	6.96	3.52	10.5
	MW22-ROX-040513	4/5/2013		42.23	NE	2.44	<0.005	<0.005		<0.005		0.159 J	0.0124 J	<0.001	0.286 J	0.29 J	<0.005	<0.001	6.14	<0.005	<0.005	<0.001	<0.001		0.931	0.379 J	<0.005	5.15	2.64	7.79
	MW22-ROX-071113	7/11/2013		39.35	NE	2.07	<0.005	<0.005		<0.005 UJ		0.131	0.0102	<0.001	0.345	0.242	<0.005	<0.001	3.92	<0.005	<0.005	<0.001	<0.001		0.864	0.309	<0.005 UJ	4.13	2.26	6.39
	MW22-ROX-071113-DUP	7/11/2013		39.35	NE	1.79	<0.005	<0.005		<0.005 UJ		0.133	0.0103	<0.001	0.362	0.245	<0.005	<0.001	3.57	<0.005	<0.005	<0.001	<0.001		0.754	0.311	<0.005 UJ	3.83	2.05	5.88
	MW22-ROX-100913	10/9/2013		40.39	NE	3.79	<0.005	<0.005 UJ		<0.005		0.137	0.0101	<0.001	0.47	0.244	<0.005	<0.001	6.02	<0.005	<0.005	<0.001	<0.001		1.37	0.357	<0.005	7.46	3.48	10.9
	MW22-ROX-100913-DUP	10/9/2013		40.39	NE	3.97	<0.005	<0.005 UJ		<0.005		0.136	0.0084	<0.001	0.445	0.243	<0.005	<0.001	6.32	<0.005	<0.005	<0.001	<0.001		1.43	0.343	<0.005	7.75	3.65	11.4
	MW22-ROX-012014	1/20/2014		42.49	NE	3.17	<0.005	<0.005		0.0082		0.169	0.007	<0.001	0.287	0.287	<0.005	<0.001	5.33	<0.005	<0.005	<0.001	<0.001		1.3	0.298	<0.005	5.65	2.65	8.29
	MW22-ROX-012014-DUP	1/20/2014		42.49	NE	3.4	<0.005	<0.005		0.0088		0.169	0.007	<0.001	0.262	0.286	<0.005	<0.001	5.71	<0.005	<0.005	<0.001	<0.001		1.37	0.398	<0.005	6.01	2.81	8.83
	MW22-ROX-041014	4/10/2014		43.15	NE	3.32	<0.005	<0.005		<0.005		0.157	<0.005	<0.001	0.334	0.254	<0.005	<0.001	5.95	<0.005	<0.005	<0.001	<0.001		1.1	0.384	<0.005	6.85	3.38	10.2
	MW22-ROX-041014-DUP	4/10/2014		43.15	NE	3.02	<0.005	<0.005		<0.005		0.138	0.0082	<0.001	0.28	0.235	<0.005	<0.001	5.52	<0.005	<0.005	<0.001	<0.001		1	0.35	<0.005	6.23	3.12	9.35
	MW22-ROX-071414	7/14/2014		41.85	NE	1.93	<0.005	<0.005		<0.005		0.153 J	<0.005	<0.001	0.282 J	0.205 J	<0.005	<0.001	3.14	<0.005	<0.005	<0.001	<0.001		0.353 J	0.262 J	<0.005	3.78	1.85	5.64
	MW22-ROX-101014	10/10/2014		41.43	NE	1.88	<0.05	<0.05		<0.05 UJ		0.0661	<0.05	<0.01	0.202	0.112	<0.05	<0.01	2.3	<0.05	<0.05	<0.01	<0.01		0.688	0.207	<0.05	3.08	1.74	4.82
	MW22-ROX-011615	1/16/2015		42.19	NE	2.84	<0.05	<0.05		<0.05		0.11	0.0111 J	<0.01	0.339	0.2	<0.05	<0.01	3.24	0.0129 J	0.0106 J	<0.01	<0.01		1.05	0.373	<0.05	5.19	2.74	7.93
	MW22-ROX-041415	4/14/2015	37.88 - 47.88	43.71	NE	3.05	<0.005	<0.005		<0.005		0.124	<0.005	<0.001	0.315	0.219	<0.005	<0.001	4.3	<0.005	<0.005	<0.001	<0.001		1.04	0.321	<0.005	6.26	3.09	9.35

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						VOCs																								
						Ethylbenzene	Ethyl methacrylate	Hexachlorobutadiene	Hexane	2-Hexanone (Methyl N-Butyl Ketone)	Isopentane	Isopropylbenzene (Cumene)	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene	Styrene	Tetrachloroethene	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,2-Trichloroethane	Trichloroethene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl acetate	m,p-Xylenes	o-Xylenes	Xylenes (total)
			Screening Values (mg/L)			0.7 [1]		0.007 [3]	0.42 [3]	0.035 [3]		0.7 [1]	0.56 [3]	0.07 [1]	0.14 [1]	0.7 [3]	0.1 [1]	0.005 [1]	1.0 [1]	0.0056 [3]	0.07 [1]	0.005 [1]	0.005 [1]			0.07 [3]	7.0 [2]	10 [1]		10 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																								
MW-23	MW23-ROX-012615	1/26/2015	29.02 - 39.02	30.90	NE	<0.001	<0.005	<0.002		<0.01		<0.001	<0.005	0.0037	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.002	<0.002	<0.01	<0.002	<0.001	<0.003
	MW23-ROX-040815	4/8/2015	29.02 - 39.02	32.24	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0039	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
MW-24	MW24-ROX-040513	4/5/2013	38.89 - 48.89	43.39	NE	0.0012	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	0.0014	<0.005	<0.005	<0.001	<0.001		0.00051 J	<0.005	<0.005	0.0021	0.0009 J	0.003
	MW24-ROX-071113	7/11/2013		40.35	NE	<0.001	<0.005	<0.005		<0.005 UJ		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	MW24-ROX-100913	10/9/2013		41.27	NE	<0.001	<0.005	<0.005 UJ		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW24-ROX-011514	1/15/2014		43.47	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW24-ROX-040914	4/9/2014		44.13	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW24-ROX-071114	7/10/2014		42.97	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW24-ROX-100814	10/8/2014		42.16	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW24-ROX-011315	1/13/2015		43.17	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW24-ROX-040915	4/9/2015	38.89 - 48.89	44.45	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
MW-25	MW25-ROX-102114	10/21/2014	35.59 - 45.59	36.44	NE	<2	<10	<10		<10		<10	<10	<2	<10	<10	<10	<2	2.65	<10	<10	<2	<2		<10	<10	<10	<2	<2	0.753 J
	MW25-ROX-012215	1/22/2015		38.45	NE	<0.25	<1.3	<1.3		<1.3		<1.3	<1.3	0.282	<1.3	<1.3	<1.3	<0.25	<0.25	<1.3	<1.3	<0.25	<0.25		<1.3	<1.3	<1.3	<0.25	<0.25	0.0821 J
	MW25-ROX-042115	4/21/2015	35.59 - 45.59	39.71	NE	<0.05	<0.25	<0.25		<0.25		<0.25	<0.25	0.125	<0.25	<0.25	<0.25	<0.25	<0.05	<0.05	<0.25	<0.25	<0.05		<0.25	<0.25	<0.25	<0.25	<0.05	<0.05
MW-26	MW26-ROX-102114	10/21/2014	38.15 - 48.15	39.43	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.002	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW26-ROX-011215	1/12/2015		41.09	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW26-ROX-040815	4/8/2015	38.15 - 48.15	42.52	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
MW-27	MW27-ROX-102114	10/21/2014	39.79 - 49.79	41.57	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW27-ROX-011515	1/15/2015		42.06	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	MW27-ROX-041015	4/10/2015	39.79 - 49.79	43.22	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
MW-28	MW28-ROX-102114	10/21/2014	33.61 - 43.61	36.44	NE	<0.001	<0.005	<0.005		<0.005		0.00075 J	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	0.0011	<0.005	<0.005	<0.001	<0.001		0.0036 J	0.00059 J	<0.005	0.0036	0.0051	0.0087
	MW28-ROX-011515	1/15/2015		41.14	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	0.00026 J	<0.005	<0.005	<0.001	<0.001		0.00059 J	<0.005	<0.005	0.0012	0.00092 J	0.0021
	MW28-ROX-041415	4/14/2015	33.61 - 43.61	42.34	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	0.00042 J	0.00042 J
P-54	P54-ROX-080212	8/2/2012	38.00 - 63.00	38.95	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.00011	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P54-ROX-103012	10/30/2012		40.70	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P54-ROX-011113	1/11/2013		41.56	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P54-ROX-041013	4/10/2013		41.80	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P54-ROX-050313	5/3/2013		41.80	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P54-ROX-071113	7/11/2013		39.07	NE	<0.001	<0.005	<0.005		<0.005 UJ		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	P54-ROX-100813	10/8/2013		39.94	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P54-ROX-011514	1/15/2014		42.20	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P54-ROX-040914	4/9/2014		42.80	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P54-ROX-071114	7/10/2014		41.71	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P54-ROX-100814	10/8/2014		40.88	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P54-ROX-011415	1/14/2015		41.79	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P54-ROX-041015	4/10/2015	38.00 - 63.00	43.20	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
P-55	P55-ROX-012113	1/21/2013	40.43 - 50.43	43.60	NE	0.316	<0.05	<0.01	0.276	<0.25		0.0678	<0.25	<0.02	0.079 J	0.14	<0.05	<0.05	0.189	<0.05	<0.01	<0.05	<0.05	0.183	0.039 J	0.026 J	<0.1	0.279	0.347	
	P55-ROX-012113	1/21/2013		43.60	NE	0.366	<0.005	<0.005		<0.005		0.0937	<0.005	0.002	0.12	0.206	<0.005	<0.001	0.262	<0.005	<0.005	<0.001	<0.001		0.046	0.0312	<0.005	0.356	0.382	0.738
	P55-ROX-041513	4/15/2013		43.63	NE	0.35	<0.01	<0.01		<0.01		0.068	<0.01	<0.002	0.0974 J	0.148	<0.01	<0.002	0.143	<0.01	<0.01	<0.002	<0.002		0.0241	0.0229	<0.01	0.235	0.362	0.597
	P55-ROX-071613	7/16/2013		40.06	NE	0.495	<0.005	<0.005 UJ		<0.005	0.72	0.0884	<0.005	<0.001	0.0841	0.175	<0.005	<0.001	0.343	<0.005	<0.005	<0.001	<0.001		0.073	0.0559	<0.005 UJ	0.535	0.558	1.11
	P55-ROX-101013	10/10/2013		41.67	NE	0.602	<0.005	<0.005		<0.005		0.0851	<0.005	0.001	0.121	0.167	<0.005	<0.001	0.601	<0.005	<0.005	<0.001	<0.001		0.151	0.062	<0.005	0.739	0.639	1.38

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						VOCs																							
						Ethylbenzene	Ethyl methacrylate	Hexachlorobutadiene	Hexane	2-Hexanone (Methyl N-Butyl Ketone)	Isopentane	Isopropylbenzene (Cumene)	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene	Styrene	Tetrachloroethene	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,2-Trichloroethane	Trichloroethene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl acetate	m,p-Xylenes	o-Xylenes	Xylenes (total)
					Screening Values (mg/L)	0.7 [1]		0.007 [3]	0.42 [3]	0.035 [3]		0.7 [1]	0.56 [3]	0.07 [1]	0.14 [1]	0.7 [3]	0.1 [1]	0.005 [1]	1.0 [1]	0.0056 [3]	0.07 [1]	0.005 [1]	0.005 [1]			0.07 [3]	7.0 [2]	10 [1]		10 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																							
P-56	P56-ROX-080612	8/6/2012	40.82 - 65.82	43.60	NE	0.101	<0.025	<0.025		<0.025 UJ		0.0442	<0.025	<0.005	0.0197	0.0439	<0.025	<0.005	0.0109	<0.025 UJ	<0.025 UJ	<0.005	<0.005		0.0131 J	0.005 J	<0.025 UJ	0.11	0.0083	0.118
	P56-ROX-103112	10/31/2012		44.80	NE	1.29	<0.005	<0.005		<0.005		0.0752	<0.005	<0.001	0.167	0.105	<0.005	<0.001	0.187	<0.005	<0.005	<0.001	<0.001		0.387	0.0901	<0.005	1.62	0.144	1.73
	P56-ROX-011713	1/17/2013		45.65	NE	0.0088	<0.025	<0.025		<0.025		0.0398	<0.025	<0.005	0.0322	0.0456	<0.025	<0.005	0.0119	<0.025	<0.025	<0.005	<0.005		0.0172 J	0.0092 J	<0.025	0.0745	<0.005	0.0745
	P56-ROX-041213	4/12/2013		46.12	NE	0.691	<0.01	<0.01		<0.01		0.0581	<0.01	<0.002	0.0964 J	0.0805	<0.01	<0.002	0.0799	<0.01	<0.01	<0.002	<0.002		0.27	0.0486	<0.01	1	0.0243	1.03
	P56-ROX-071513	7/15/2013		43.25	NE	2	<0.005	<0.005		<0.005		0.0968	<0.005	<0.001	0.316	0.145	<0.005	<0.001	0.311	<0.005	<0.005	<0.001	<0.001		0.551	0.134	<0.005	2.67	0.21	2.85
	P56-ROX-101013	10/10/2013		44.48	NE	1.58	<0.005	<0.005		<0.005		0.0822	<0.005	0.00058 J	0.156	0.105	<0.005	<0.001	0.157	<0.005	<0.005	<0.001	<0.001		0.33	0.0714	<0.005	1.7	0.0617	1.76
	P56-ROX-012214	1/22/2014		46.35	NE	0.305	<0.005	<0.005		<0.005		0.0399	<0.005	<0.001	0.0566	0.0426	<0.005	<0.001	0.0263	<0.005	<0.005	<0.001	<0.001		0.074	0.0172	<0.005	0.224	0.0093	0.233
	P56-ROX-041414	4/14/2014		47.32	NE	0.608	<0.005	<0.005		<0.005		0.0781	<0.005	<0.001	0.0836	0.0951	<0.005	<0.001	0.0669	<0.005	<0.005	<0.001	<0.001		0.205	0.0472	<0.005	0.742	0.0156	0.758
	P56-ROX-070814	7/8/2014		45.97	NE	1.71 J	<0.005	<0.005		<0.005		0.106 J	<0.005	<0.001	0.156 J	0.133 J	<0.005	<0.001	0.288 J	<0.005	<0.005	<0.001	<0.001		0.487 J	0.166 J	<0.005	2.04 J	0.122 J	2.09 J
	P56-ROX-101314	10/13/2014		45.05	NE	0.164	<0.005	<0.005		<0.005 UJ		0.0645	<0.005	<0.001	0.0679	0.0709	<0.005	<0.001	0.0183	<0.005	<0.005	<0.001	<0.001		0.0657	0.0194	<0.005	0.17	0.0066	0.176
	P56-ROX-011915	1/19/2015		46.58	NE	0.104	<0.005	<0.005		<0.005		0.0532	<0.005	<0.001	0.0261	0.0574	<0.005	<0.001	0.0114	<0.005	<0.005	<0.001	<0.001		0.0466	0.0135	<0.005	0.143	0.0043	0.148
	P56-ROX-041515	4/15/2015	40.82 - 65.82	48.05	NE	0.624	<0.005	<0.005		<0.005		0.0768	<0.005	<0.001	0.0754	0.0918	<0.005	<0.001	0.068	<0.005	<0.005	<0.001	<0.001		0.189	0.0454	<0.005	0.737	0.0124	0.749
P-57	P57-ROX-080612	8/6/2012	40.46 - 65.46	43.53	NE	0.795	<0.25	<0.25		<0.25 UJ		<0.25	<0.25	0.238	0.119	<0.25	<0.25	<0.05	0.0577	<0.25	<0.25	<0.05	<0.05		0.506	0.123 J	<0.25 UJ	0.74	0.0328 J	0.773
	P57-ROX-080612-DUP	8/6/2012		43.53	NE	0.759 E	<0.005	<0.005		<0.005 UJ		0.0432	<0.005	0.212	0.115	0.0519	<0.005	<0.001	0.0558	<0.005	<0.005	<0.001	<0.001		0.505 E	0.137	<0.005 UJ	0.692	0.0348	0.727
	P57-ROX-110512	11/5/2012		44.98	NE	1.09	<2.5	<2.5		<2.5		<2.5	<2.5	<0.5	1.53 J	<2.5	<2.5	<0.5	<0.5	<2.5	<2.5	<0.5	<0.5		0.577 J	<2.5	<2.5	1.03	<0.5	1.03
	P57-ROX-012913	1/29/2013		45.92	NE	1.1	<2.5	<2.5		<2.5		<2.5	<2.5	<0.5	<2.5	0.331 J	<2.5	<0.5	<0.5	<2.5	<2.5	<0.5	<0.5		<2.5	<2.5	<2.5	<0.5	<0.5	<0.5
	P57-ROX-041113	4/11/2013		46.29	NE	1.19	<2.5	<2.5		<2.5		<2.5	<2.5	<0.5	<2.5	<2.5	<2.5	<0.5	<0.5	<2.5	<2.5	<0.5	<0.5		0.494 J	<2.5	<2.5	<0.5	<0.5	<0.5
	P57-ROX-071613	7/16/2013		43.38	NE	1.59	<0.005	<0.005 UJ		<0.005		0.0698 J	<0.005	0.112 J	0.203 J	0.0802 J	<0.005	<0.001	0.202 J	<0.005	<0.005	<0.001	<0.001		<5	0.129 J	<0.005 UJ	1.81	0.256 J	2.01
	P57-ROX-101413	10/14/2013		44.38	NE	1.1	<0.005	<0.005		<0.005		0.0539	<0.005	0.107	0.206	0.0586	<0.005	<0.001	0.0421	<0.005	<0.005	<0.001	<0.001		0.763 J	0.12	<0.005	0.468	0.0206	0.489
	P57-ROX-020314	2/3/2014		46.57	NE	0.697 J	<5	<5		<5		<5	<5	<1	<5	<5	<5	<1	<1	<5	<5	<1	<1		<5	<5	<5	<1	<1	<1
	P57-ROX-041514	4/15/2014		46.70	NE	1.08	<0.005	<0.005		0.0062		0.0492	<0.005	0.0563	0.272	0.0585	<0.005	<0.001	0.0248	0.0015 J	<0.005	<0.001	<0.001		0.503 E J	0.114	<0.005	0.296	0.0143	0.311
	P57-ROX-070814	7/8/2014		45.95	NE	1.12	<0.005 UJ	<0.005 UJ		<0.005 UJ		0.0656 J	<0.005 UJ	<0.001 UJ	0.128 J	0.0605 J	<0.005 UJ	<0.001 UJ	0.154 J	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ		0.375 J	0.0913 J	<0.005 UJ	1.46	0.237	1.7
	P57-ROX-070814-DUP	7/8/2014		45.95	NE	1.21	<0.005 UJ	<0.005 UJ		<0.005 UJ		0.0689 J	<0.005 UJ	<0.001 UJ	0.139 J	0.0633 J	<0.005 UJ	<0.001 UJ	0.16 J	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ		0.392 J	0.0954 J	<0.005 UJ	1.56	0.234	1.79
	P57-ROX-101414-DUP	10/14/2014		45.00	NE	1.77 J	<10	<10		<10 UJ		<10	<10	<2	<10	<10	<10	<2	0.849 J	<10	<10	<2	<2		1.18 J	<10	<10	2.37	0.949 J	3.32 J
	P57-ROX-101414	10/14/2014		45.00	NE	3.86	<10	<10		<10 UJ		<10	<10	<2	2.05 J	<10	<10	<2	2.65	<10	<10	<2	<2		2.37 J	<10	<10	5.79	2.1	7.89 J
	P57-ROX-012315	1/23/2015	44.19 - 54.19	47.52	NE	0.773	<2.5	<2.5		<2.5		<2.5	<2.5	<0.5	<2.5	<2.5	<2.5	<0.5	<0.5	<2.5	<2.5	<0.5	<0.5		0.652 J	<2.5	<2.5	0.342 J	<0.5	0.342 J
	P57-ROX-042015	4/20/2015	44.19 - 54.19	48.73	NE	0.487	<0.25	<0.25		<0.25		0.0246 J	<0.25	<0.05	<0.25	0.0468 J	<0.25	<0.05	0.0376 J	<0.25	<0.25	<0.05	<0.05		0.305	0.0323 J	<0.25	0.14	0.0141 J	0.154
P-58	P58-ROX-080612	8/6/2012	40.21 - 65.21	41.63	NE	0.889	<0.1	<0.1		<0.1 UJ		0.0649 J	<0.1	<0.02	0.142	0.0909 J	<0.1	<0.02	0.117	<0.1	<0.1	<0.02	<0.02		0.705	0.0955 J	<0.1 UJ	0.652	0.0976	0.749
	P58-ROX-080612-DUP	8/6/2012		41.63	NE	0.931	<0.05	<0.05		<0.05		0.0718	<0.05	<0.01	0.15	0.0996	<0.05	<0.01	0.128	<0.05	<0.05	<0.01	<0.01		0.737	0.102	<0.05	0.656	0.104	0.759
	P58-ROX-110612	11/6/2012		43.09	NE	0.844	<0.5	<0.5		<0.5		<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.1	0.124	<0.5	<0.5	<0.1	<0.1		0.658	0.108 J	<0.5	0.544	0.0807 J	0.624
	P58-ROX-121012	12/10/2012		43.09	NE																									
	P58-ROX-012213	1/22/2013		44.21	NE	1.27	<5	<5		<5		<5	<5	<1	<5	<5	<5	<1	<1	<5	<5	<1	<1		<5	<5	<5	<1	<1	0.728 J
	P58-ROX-041113	4/11/2013		44.40	NE	1.28 J	<10	<10		<10		<10	<10	<2	<10	<10	<10	<2	<2	<10	<10	<2	<2		0.926 J	<10	<10	<2	<2	<2
	P58-ROX-071613	7/16/2013		41.49	NE	1.07	<0.005	<0.005 UJ		<0.005		0.101	<0.005	<0.001	0.234	0.131	<0.005	<0.001	0.147	<0.005	<0.005	<0.001	<0.001		0.634 J	0.13	<0.005 UJ	0.723	0.12	0.843
	P58-ROX-101413	10/14/2013		42.19	NE	1.53	<0.005	<0.005		<0.005		0.0999	0.0055	0.0015	0.234	0.135	<0.005	<0.001	0.2	<0.005	<0.005	<0.001	<0.001		1.17 J	0.131	<0.005	0.74	0.112	0.852
	P58-ROX-020314	2/3/2014		44.66	NE	0.767 J	<5	<5		<5		<5	<5	<1	<5	<5	<5	<1	<1	<5	<5	<1	<1		<5	<5	<5	<1	<1	<1
	P58-ROX-041514	4/15/2014		45.66	NE	0.891 J	<0.005	<0.005		<0.005		0.0777 J	<0.005	<0.001	0.277 J	0.104 J	<0.005	<0.001	0.127 J	<0.005	<0.005	<0.001	<0.001		0.53 E J	0.0992 J	<0.005	0.552 J	0.0908 J	0.643 J
	P58-ROX-071814	7/18/2014		43.80	NE	<2	<10	<10		<10		<10	<10	<2	<10	<10	<10	<2	<2	<10	<10	<2	<2		<10	<10	<10	<2	<2	<2
	P58-ROX-101514	10/15/2014		43.14	NE	0.793	<2.5	<2.5		<2.5		1.43 J	<2.5	<0.5	<2.5	0.781 J	<2.5	<0.5	<0.5	<2.5	<2.5	<0.5	<0.5		0.72 J	0.453 J	<2.5	<0.5	0.253 J	0.718
	P58-ROX-012315	1/23/2015		45.32	NE	1.13	<5	<5		<5		<5	<5	<1	<5	<5	<5	<1	<1	<5	<5	<1	<1		0.714 J	<5	<5	0.686 J	<1	0.686 J
	P58-ROX-042015	4/20/2015	40.21 - 65.21	46.67	NE	0.81	<0.05	<0.05		<0.05		0.0575	<0.05	<0.01	0.12	0.0762	<0.05	<0.01	0.101	<0.05	<0.05	<0.01	<0.01		0.549	0.0691	<0.05	0.433	0.0525	0.486

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						VOCs																							
						Ethylbenzene	Ethyl methacrylate	Hexachlorobutadiene	Hexane	2-Hexanone (Methyl N-Butyl Ketone)	Isopentane	Isopropylbenzene (Cumene)	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene	Styrene	Tetrachloroethene	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,2-Trichloroethane	Trichloroethene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl acetate	m,p-Xylenes	o-Xylenes	Xylenes (total)
			Screening Values (mg/L)			0.7 [1]		0.007 [3]	0.42 [3]	0.035 [3]		0.7 [1]	0.56 [3]	0.07 [1]	0.14 [1]	0.7 [3]	0.1 [1]	0.005 [1]	1.0 [1]	0.0056 [3]	0.07 [1]	0.005 [1]	0.005 [1]			0.07 [3]	7.0 [2]	10 [1]		10 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																							
P-59	P59-ROX-080212	8/2/2012	47.91 - 72.91	44.07	NE	1.74	<0.1	<0.1		<0.1		0.0452 J	<0.1	<0.02	0.0886	0.0974 J	<0.1	<0.02	0.506	<0.1	<0.1	<0.02	<0.02		0.563	0.158	<0.1	4.35	0.376	4.73
	P59-ROX-110212	11/2/2012		45.98	NE	1.87	<0.5	<0.5		<0.5		<0.5	<0.5	<0.1	<0.5	0.105 J	<0.5	<0.1	1.09	<0.5	<0.5	<0.1	<0.1		0.558	0.154 J	<0.5	4.49	0.686	5.17
	P59-ROX-110212-DUP	11/2/2012		45.98	NE	1.94	<0.5	<0.5		<0.5		<0.5	<0.5	<0.1	<0.5	0.111 J	<0.5	<0.1	1.1	<0.5	<0.5	<0.1	<0.1		0.592	0.167 J	<0.5	4.68	0.721	5.4
	P59-ROX-013013	1/30/2013		46.60	NE	1.9	<0.25	<0.25		<0.25		0.0455 J	<0.25 UJ	<0.05 UJ	0.376	0.085 J	<0.25	<0.05	0.296	<0.25	<0.25	<0.05	<0.05		0.563	0.0491 J	<0.25	4.19	0.264	4.45
	P59-ROX-041213	4/12/2013		46.95	NE	2.85	<0.25	<0.25		<0.25		0.062 J	<0.25	<0.05	0.664	0.136 J	<0.25	<0.05	0.523	<0.25	<0.25	<0.05	<0.05		0.946	<0.25	<0.25	6.52	0.646	7.16
	P59-ROX-041213-DUP	4/12/2013		46.95	NE	2.57	<0.25	<0.25		<0.25		0.0543 J	<0.25	<0.05	0.547	0.117 J	<0.25	<0.05	0.463	<0.25	<0.25	<0.05	<0.05		0.843	<0.25	<0.25	5.89	0.591	6.48
	P59-ROX-071613	7/16/2013		44.13	NE	2.4	<0.005	<0.005 UJ		<0.005		0.074 J	<0.005	<0.001	0.215 J	0.149 J	<0.005	<0.001	1.03	<0.005	<0.005	<0.001	<0.001		0.784	0.219	<0.005 UJ	5.76	0.431	6.19
	P59-ROX-101013	10/10/2013		45.50	NE	3.19	<0.005	<0.005		<0.005		0.086	<0.005	0.0012	0.285	0.176	<0.005	<0.001	2.89	<0.005	<0.005	<0.001	<0.001		1.14	0.273	<0.005	7.47	1.28	8.75
	P59-ROX-020314	2/3/2014		47.35	NE	1.86	<0.1	<0.1		<0.1		0.0409 J	<0.1	<0.02	0.0321 J	0.0824 J	<0.1	<0.02	0.66	<0.1	<0.1	<0.02	<0.02		0.621	0.193	<0.1	3.79	0.438	4.23
	P59-ROX-041514	4/15/2014		48.60	NE	1.69	<0.005	<0.005		0.054		0.0495	<0.005	<0.001	0.196	0.0798	<0.005	<0.001	0.746	0.0027 J	<0.005	<0.001	<0.001		0.385	0.214	<0.005	4.83	0.902	5.73
	P59-ROX-070814	7/8/2014		47.69	NE	1.92	<0.005	<0.005		<0.005		0.0948 J	<0.005	<0.001	0.228 J	0.16 J	<0.005	<0.001	1.55	<0.005	<0.005	<0.001	<0.001		0.607	0.285 J	<0.005	4.48	0.929	5.41
	P59-ROX-101414	10/14/2014		46.18	NE	2.33	<0.005	<0.005		<0.005 UJ		0.0932 J	<0.005	0.0041 J	0.38 J	0.188 J	<0.005	<0.001	1.13	<0.005	<0.005	<0.001	<0.001		0.901	0.26 J	<0.005	5.14	1.03	6.17
	P59-ROX-011915	1/19/2015		47.42	NE	2.2	<0.5	<0.5		<0.5		0.0619 J	<0.5	<0.1	0.572	0.108 J	<0.5	<0.1	0.375	<0.5	<0.5	<0.1	<0.1		0.609	0.21 J	<0.5	4.95	0.245	5.2
	P59-ROX-041615	4/16/2015	47.91 - 72.91	48.83	NE	2.13	<0.05	<0.05		<0.05		0.0432 J	<0.05	<0.01	0.161	0.0763	<0.05	0.0032 J	0.69	<0.05	<0.05	<0.01	<0.01		0.576	0.177	<0.05	4.78	0.534	5.32
P-66	P66-ROX-080312	8/3/2012	34.72 - 59.72	30.51	NE	0.0013	<0.005	<0.005		<0.005		0.0874	<0.005	0.103	0.0013	0.112	<0.005	<0.001	0.0013	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	0.0011	0.0011	0.0022
	P66-ROX-103112	10/31/2012		34.75	NE	0.0012	<0.005	<0.005		<0.005		0.122	<0.005	0.0733	<0.005	0.156	<0.005	<0.001	0.0014	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P66-ROX-011813	1/18/2013		35.70	NE	0.0014	<0.005	<0.005		<0.005		0.146	<0.005	0.104	<0.005	0.193	<0.005	<0.001	0.0015	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	0.00093 J	0.00093 J
	P66-ROX-041113	4/11/2013		36.03	NE	0.0036	<0.005	<0.005		<0.005		0.287	<0.005	0.086	<0.005	0.384	<0.005	<0.001	0.0012	<0.005	<0.005	<0.001	<0.001		0.0041 J	<0.005	<0.005	<0.001	<0.001	<0.001
	P66-ROX-071213	7/12/2013		33.20	NE	0.0022	<0.005	<0.005 UJ		<0.005		0.191	<0.005	<0.001	<0.005	0.229	<0.005	<0.001 UJ	0.0018	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	0.001	0.0015
	P66-ROX-101013	10/10/2013		33.66	NE	0.0045	<0.005	<0.005		<0.005		0.151	<0.005	0.085	0.0104	0.204	<0.005	<0.001	0.0013	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	0.00096 J	0.00096 J
	P66-ROX-110713	11/7/2013		33.66	NE	0.0016	<0.005	<0.005		<0.005		0.0958	<0.005	0.0528	0.0057	0.0658	<0.005	<0.001	0.00086 J	<0.005	<0.005	0.0015	<0.001		<0.005	<0.005	<0.005	<0.001	0.00057 J	0.00057 J
	P66-ROX-012914	1/29/2014		36.39	NE	0.0013	<0.005	<0.005		<0.005		0.131	<0.005	<0.001	<0.005	0.157	<0.005	<0.001	0.0017	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	0.0045	0.0045
	P66-ROX-041114	4/11/2014		37.10	NE	0.0014	<0.005	<0.005		<0.005		0.115	<0.005	<0.001	0.0014 J	0.136	<0.005	<0.001	0.0017	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	0.00072 J	0.0013
	P66-ROX-070714	7/7/2014		35.60	NE	0.0016	<0.005	<0.005		<0.005		0.144	<0.005	<0.001	<0.005	0.102	<0.005	<0.001	0.0022	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	0.001	0.00099 J	0.002
	P66-ROX-101414	10/14/2014		34.48	NE	0.0013	<0.005	<0.005		<0.005 UJ		0.129	<0.005	0.0111	<0.005	0.137	<0.005	<0.001	0.0016	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	0.0009 J	0.0018
	P66-ROX-011615	1/16/2015		36.62	NE	0.0016	<0.005	<0.005		<0.005		0.121	<0.005	0.0171	0.006	0.136	<0.005	<0.001	0.0018	<0.005	<0.005	<0.001	<0.001		0.00073 J	0.00029 J	<0.005	0.00093 J	0.0012	0.0021
	P66-ROX-011615-DUP	1/16/2015		36.62	NE	0.0014	<0.005	<0.005		<0.005		0.116	<0.005	0.0172	0.0053	0.127	<0.005	<0.001	0.0016	<0.005	<0.005	<0.001	<0.001		0.00041 J	0.00019 J	<0.005	0.001	0.0013	0.0022
	P66-ROX-041415	4/14/2015	34.72 - 59.72	38.27	NE	0.003	<0.005	<0.005		<0.005		0.133	<0.005	<0.001	<0.005	0.134	<0.005	<0.001	0.0024	<0.005	<0.005	<0.001	<0.001		0.00064 J	<0.005	<0.005	0.0028	0.0015	0.0044
	P66-ROX-041415-DUP	4/14/2015		38.27	NE	0.0027	<0.005	<0.005		<0.005		0.13	<0.005	<0.001	<0.005	0.132	<0.005	<0.001	0.0022	<0.005	<0.005	<0.001	<0.001		0.00053 J	<0.005	<0.005	0.0024	0.0013	0.0037
P-74	P74-ROX-080612	8/6/2012	44.43 - 69.43	40.71	NE	0.0782	<0.05	<0.05		<0.05 UJ		<0.05	<0.05	<0.01	0.0177	<0.05	<0.05	<0.01	0.159	<0.05	<0.05	<0.01	<0.01		0.187	0.0663	<0.05 UJ	0.388	0.125	0.512
	P74-ROX-110112	11/1/2012		41.72	NE	0.0493	<0.1	<0.1		<0.1		<0.1	<0.1	<0.02	0.0834 J	<0.1	<0.1	<0.02	0.232	<0.1	<0.1	<0.02	<0.02		0.125	0.0414 J	<0.1	0.246	0.0811	0.328
	P74-ROX-011713	1/17/2013		42.65	NE	0.0997	<0.1	<0.1		<0.1		<0.1	<0.1	<0.02	0.141	<0.1	<0.1	<0.02	0.278	<0.1	<0.1	<0.02	<0.02		0.249	0.0973 J	<0.1	0.547	<0.02	0.555
	P74-ROX-041113	4/11/2013		42.83	NE	0.0086	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	0.0016 J	<0.005	<0.005	<0.001	0.003	<0.005	<0.005	<0.001	<0.001		0.0184	0.0138	<0.005	0.0456	0.0146	0.0601
	P74-ROX-071513	7/15/2013		40.11	NE	0.0306	<0.005	<0.005		<0.005		0.0031 J	<0.005	<0.001	0.024	0.0054	<0.005	<0.001	0.0064	<0.005	<0.005	<0.001	<0.001		0.101	0.0365	<0.005	0.109	0.027	0.136
	P74-ROX-101413	10/14/2013		41.72	NE	0.0653	<0.005	<0.005		<0.005		0.0052	0.0074	0.0011	0.0257	0.0094	<0.005	<0.001	0.0344	<0.005	<0.005	<0.001	<0.001		0.192	0.0739	<0.005	0.237	0.0483	0.285
	P74-ROX-012414	1/24/2014		43.35	NE	0.115	<0.005	<0.005		<0.005		0.0058	<0.005	<0.001	0.0322	0.0112	<0.005	<0.001	0.153	<0.005	<0.005	<0.001	<0.001		0.292	0.11	<0.005	0.316	0.0579	0.374
	P74-ROX-041514	4/15/2014		44.74	NE	0.0043	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	0.00074 J	<0.005	<0.005	<0.001	0.00078 J	<0.005	<0.005	<0.001	<0.001		0.0083	0.0039 J	<0.005	0.0193	0.0015	0.0208
	P74-ROX-070814	7/8/2014		43.02	NE	0.0374	<0.005	<0.005		<0.005		0.0018 J J	<0.005	<0.001	0.0128	0.0036 J	<0.005	<0.001	0.0087	<0.005	<0.005	<0.001	<0.001		0.117	0.0518	<0.005	0.121	0.0122	0.133
	P74-ROX-101414	10/14/2014		41.48	NE	<0.001	<0.005	<0.005		<0.005 UJ		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	0.00043 J
	P74-ROX-011915	1/19/2015		43.47	NE	0.082	<0.005	<0.005		<0.005		0.0029 J	<0.005	0.0056	0.0193	0.0053	<0.005	<0.001	0.102	<0.005	<0.005	<0.001	<0.001		0.135	0.0589	<0.005	0.197	0.019	0.216
	P74-ROX-041515	4/15/2015	44.43 - 69.43	44.61	NE	0.0058	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	0.00042 J	<0.005	<0.001	0.0013	<0.005	<0.005	<0.001	<0.001		0.0086	0.0044 J	<0.005	0.0202	0.0012	0.0214

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						VOCs																							
						Ethylbenzene	Ethyl methacrylate	Hexachlorobutadiene	Hexane	2-Hexanone (Methyl N-Butyl Ketone)	Isopentane	Isopropylbenzene (Cumene)	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene	Styrene	Tetrachloroethene	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,2-Trichloroethane	Trichloroethene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl acetate	m,p-Xylenes	o-Xylenes	Xylenes (total)
			Screening Values (mg/L)			0.7 [1]		0.007 [3]	0.42 [3]	0.035 [3]		0.7 [1]	0.56 [3]	0.07 [1]	0.14 [1]	0.7 [3]	0.1 [1]	0.005 [1]	1.0 [1]	0.0056 [3]	0.07 [1]	0.005 [1]	0.005 [1]			0.07 [3]	7.0 [2]	10 [1]		10 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																							
P-93A	P93A-ROX-080912	8/9/2012	48.17 - 63.17	43.66	NE	0.225	<0.005	<0.005		<0.005		0.0126	<0.005	0.0485	0.0496	0.0137	<0.005	<0.001	0.0091	<0.005	<0.005	<0.001	<0.001		0.145	0.0273	<0.005	0.436	0.0642	0.5
	P93A-ROX-110712	11/7/2012		45.00	NE	0.265	<0.5	<0.5		<0.5		<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.1	<0.1	<0.5	<0.5	<0.1	<0.1		<0.5	<0.5	<0.5	0.43	0.076 J	0.506
	P93A-ROX-110712-DUP	11/7/2012		45.00	NE	0.262	<0.5	<0.5		<0.5		<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.1	<0.1	<0.5	<0.5	<0.1	<0.1		<0.5	<0.5	<0.5	0.404	0.073 J	0.477
	P93A-ROX-012313	1/23/2013		45.89	NE	<0.5	<2.5	<2.5		<2.5		<2.5	<2.5	<0.5	<2.5	<2.5	<2.5	<0.5	<0.5	<2.5	<2.5	<0.5	<0.5		<2.5	<2.5	<2.5 UJ	<0.5	<0.5	<0.5
	P93A-ROX-012313-DUP	1/23/2013		45.89	NE	<0.5	<2.5	<2.5		<2.5		<2.5	<2.5	<0.5	<2.5	<2.5	<2.5	<0.5	<0.5	<2.5	<2.5	<0.5	<0.5		<2.5	<2.5	<2.5 UJ	<0.5	<0.5	<0.5
	P93A-ROX-041113	4/11/2013		46.29	NE	0.255 J	<2.5	<2.5		<2.5		<2.5	<2.5	<0.5	<2.5	<2.5	<2.5	<0.5	<0.5	<2.5	<2.5	<0.5	<0.5		<2.5	<2.5	<2.5	<0.5	<0.5	<0.5
	P93A-ROX-041113-DUP	4/11/2013		46.29	NE	<0.5	<2.5	<2.5		<2.5		<2.5	<2.5	<0.5	<2.5	<2.5	<2.5	<0.5	<0.5	<2.5	<2.5	<0.5	<0.5		<2.5	<2.5	<2.5	<0.5	<0.5	<0.5
	P93A-ROX-071813	7/18/2013		43.25	NE	0.162	<0.005	<0.005		<0.005		0.0101	<0.005	0.0054	0.0303	0.0113	<0.005	<0.001	0.0072	<0.005	<0.005	<0.001	<0.001		0.0915	0.0116	<0.005 UJ	0.273	0.0426	0.316
	P93A-ROX-101113	10/11/2013		44.18	NE	0.264	<0.005	<0.005		<0.005		0.0142	<0.005	0.0034	0.0621	0.015	<0.005	<0.001	0.0133	<0.005	<0.005	<0.001	<0.001		0.146	0.0163	<0.005 UJ	0.451	0.0789	0.53
	P93A-ROX-012914	1/29/2014		46.53	NE	<0.5	<2.5	<2.5		<2.5		<2.5	<2.5	<0.5	<2.5	<2.5	<2.5	<0.5	<0.5	<2.5	<2.5	<0.5	<0.5		<2.5	<2.5	<2.5	<0.5	<0.5	<0.5
	P93A-ROX-041714	4/17/2014		47.41	NE	<0.5	<2.5	<2.5		<2.5		<2.5	<2.5	<0.5	<2.5	<2.5	<2.5	<0.5	<0.5	<2.5	<2.5	<0.5	<0.5		<2.5	<2.5	<2.5	<0.5	<0.5	<0.5
	P93A-ROX-071814	7/18/2014		45.70	NE	<1	<5	<5		<5		<5	<5	<1	<5	<5	<5	<1	<1	<5	<5	<1	<1		<5	<5	<5	<1	<1	<1
	P93A-ROX-071814-DUP	7/18/2014		45.70	NE	<1	<5	<5		<5		<5	<5	<1	<5	<5	<5	<1	<1	<5	<5	<1	<1		<5	<5	<5	<1	<1	<1
	P93A-ROX-101514	10/15/2014		45.06	NE	0.229 J	<2.5	<2.5		<2.5		<2.5	<2.5	<0.5	<2.5	<2.5	<2.5	<0.5	<0.5	<2.5	<2.5	<0.5	<0.5		0.442 J	<2.5	<2.5	<0.5	0.263 J	0.65
	P93A-ROX-101514-DUP	10/15/2014		45.06	NE	0.226 J	<2.5	<2.5		<2.5		<2.5	<2.5	<0.5	<2.5	<2.5	<2.5	<0.5	<0.5	<2.5	<2.5	<0.5	<0.5		<2.5	<2.5	<2.5	<0.5	0.258 J	0.635
	P93A-ROX-012715	1/27/2015	43.07 - 53.07	46.05	NE	0.0856 J	<0.005 UJ	<0.002 UJ		<0.01 UJ		0.0073 J	0.0011 J J	0.0013 J	0.0243 J	0.008 J	<0.001 UJ	<0.001 UJ	0.0039 J	<0.001 UJ	<0.001 UJ	<0.001 UJ	<0.001 UJ		0.127 E J	0.0282 J	<0.01 UJ	0.138 J	0.0347 J	0.173 J
	P93A-ROX-041715	4/17/2015	43.07 - 53.07	47.02	NE	0.0559	<0.005	<0.005		<0.005		0.0049 J	<0.005	<0.001	0.011	0.0059	<0.005	<0.001	0.003	<0.005	<0.005	<0.001	<0.001		0.0886	0.03	<0.005	0.0477	0.0199	0.0677
P-93B	P93B-ROX-080912	8/9/2012	74.60 - 76.60	43.69	NE	0.0741	<0.005	<0.005		<0.005		0.0266	<0.005	<0.001	0.0049	0.0406	<0.005	<0.001	0.0786	<0.005	<0.005	<0.001	<0.001		0.0372	0.0107	<0.005	0.245	0.0468	0.292
	P93B-ROX-110712	11/7/2012		45.05	NE	<0.1	<0.5	<0.5		<0.5		<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.1	<0.1	<0.5	<0.5	<0.1	<0.1		<0.5	<0.5	<0.5	0.0986 J	<0.1	0.0986 J
	P93B-ROX-110712-DUP	11/7/2012		45.05	NE	0.0695 J	<0.5	<0.5		<0.5		<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.1	0.0719 J	<0.5	<0.5	<0.1	<0.1		<0.5	<0.5	<0.5	0.237	<0.1	0.237
	P93B-ROX-012313	1/23/2013		45.89	NE	<1	<5	<5		<5		<5	<5	<1	<5	<5	<5	<1	<1	<5	<5	<1	<1		<5	<5	<5 UJ	<1	<1	<1
	P93B-ROX-041113	4/11/2013		46.32	NE	<0.5	<2.5	<2.5		<2.5		<2.5	<2.5	<0.5	<2.5	<2.5	<2.5	<0.5	<0.5	<2.5	<2.5	<0.5	<0.5		<2.5	<2.5	<2.5	<0.5	<0.5	<0.5
	P93B-ROX-071813	7/18/2013		43.30	NE	0.0652	<0.005	<0.005		<0.005		0.0247	<0.005	0.0035	0.0093	0.0357	<0.005	<0.001	0.0646	<0.005	<0.005	<0.001	<0.001		0.025	0.0069	0.0176 J	0.195	0.0418	0.236
	P93B-ROX-101613	10/16/2013		44.43	NE	<2	<10 UJ	<10		<10		<10	<10	<2 UJ	<10	<10	<10	<2	<2	<10	<10	<2	<2		<10	<10	<10 UJ	<2	<2	<2
	P93B-ROX-101613-DUP	10/16/2013		44.43	NE	<2	<10 UJ	<10		<10		<10	<10	<2 UJ	<10	<10	<10	<2	<2	<10	<10	<2	<2		<10	<10	<10 UJ	<2	<2	<2
	P93B-ROX-012814	1/28/2014		46.58	NE	<1	<5	<5		<5		<5	<5	<1	<5	<5	<5	<1	<1	<5	<5	<1	<1		<5	<5	<5	<1	<1	<1
	P93B-ROX-012814-DUP	1/28/2014		46.58	NE	<1	<5	<5		<5		<5	<5	<1	<5	<5	<5	<1	<1	<5	<5	<1	<1		<5	<5	<5	<1	<1	<1
	P93B-ROX-041714	4/17/2014		47.46	NE	<0.5	<2.5	<2.5		<2.5		<2.5	<2.5	<0.5	<2.5	<2.5	<2.5	<0.5	<0.5	<2.5	<2.5	<0.5	<0.5		<2.5	<2.5	<2.5	<0.5	<0.5	<0.5
	P93B-ROX-041714-DUP	4/17/2014		47.46	NE	<0.5	<2.5	<2.5		<2.5		<2.5	<2.5	<0.5	<2.5	<2.5	<2.5	<0.5	<0.5	<2.5	<2.5	<0.5	<0.5		<2.5	<2.5	<2.5	<0.5	<0.5	<0.5
	P93B-ROX-071714	7/17/2014		45.75	NE	0.0236 J	<0.005 UJ	<0.005 UJ		<0.005 UJ		0.0227 J	<0.005 UJ	<0.001 UJ	0.0053 J	0.0297 J	<0.005 UJ	<0.001 UJ	0.0129 J	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ		0.008 J	0.0037 J J	<0.005 UJ	0.0662 J	0.0047 J	0.0708
	P93B-ROX-101514	10/15/2014		45.15	NE	<0.5	<2.5	<2.5		<2.5		<2.5	<2.5	<0.5	<2.5	<2.5	<2.5	<0.5	<0.5	<2.5	<2.5	<0.5	<0.5		<2.5	<2.5	<2.5	<0.5	<0.5	<0.5
	P93B-ROX-012315	1/23/2015		47.24	NE	<1	<5	<5		<5		<5	<5	<1	<5	<5	<5	<1	<1	<5	<5	<1	<1		<5	<5	<5	<1	<1	<1
	P93B-ROX-012315-DUP	1/23/2015		47.24	NE	<1	<5	<5		<5		<5	<5	<1	<5	<5	<5	<1	<1	<5	<5	<1	<1		<5	<5	<5	<1	<1	<1
	P93B-ROX-021915	2/19/2015		47.24	NE	<0.5	<2.5	<1		<5		<0.5	<2.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<1	<1	<5	<1	<0.5	<1.5
	P93B-ROX-041615	4/16/2015	74.60 - 76.60	48.42	NE	0.0947	<0.005	<0.005		<0.005		0.0226	<0.005	<0.001	0.0033 J	0.0286	<0.005	0.00073 J	0.111	<0.005	<0.005	<0.001	<0.001		0.0124	0.0043 J	<0.005	0.0993	0.0378	0.137
	P93B-ROX-041615-DUP	4/16/2015		48.42	NE	0.249 J	<5	<5		<5		<5	<5	<1	<5	<5	<5	0.216 J	<1	<5	<5	<1	<1		<5	<5	<5	<1	<1	0.338 J

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						VOCs																								
						Ethylbenzene	Ethyl methacrylate	Hexachlorobutadiene	Hexane	2-Hexanone (Methyl N-Butyl Ketone)	Isopentane	Isopropylbenzene (Cumene)	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene	Styrene	Tetrachloroethene	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,2-Trichloroethane	Trichloroethene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl acetate	m,p-Xylenes	o-Xylenes	Xylenes (total)
			Screening Values (mg/L)			0.7 [1]		0.007 [3]	0.42 [3]	0.035 [3]		0.7 [1]	0.56 [3]	0.07 [1]	0.14 [1]	0.7 [3]	0.1 [1]	0.005 [1]	1.0 [1]	0.0056 [3]	0.07 [1]	0.005 [1]	0.005 [1]			0.07 [3]	7.0 [2]	10 [1]		10 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																								
P-93C	P93C-ROX-080912	8/9/2012	94.26 - 96.26	43.57	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0053	0.000065 J	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P93C-ROX-110812	11/8/2012		45.12	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0056	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P93C-ROX-012313	1/23/2013		45.78	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0044	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	P93C-ROX-041213	4/12/2013		46.21	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0045	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P93C-ROX-071813	7/18/2013		43.31	NE	0.0041	<0.005	<0.005		<0.005		0.002 J	<0.005	0.0049	<0.005	0.002 J	<0.005	<0.001	0.007	<0.005	<0.005	<0.001	<0.001		0.0016 J	<0.005	<0.005 UJ	0.0076	0.0015	0.0091
	P93C-ROX-080813	8/8/2013		43.31	NE	<0.05	<0.25	<0.25		<0.25		<0.25	<0.25	<0.05	<0.25	<0.25	<0.25	<0.05	<0.05	<0.25	<0.25	<0.05	<0.05		<0.25	<0.25	<0.25	<0.05	<0.05	<0.05
	P93C-ROX-101613	10/16/2013		44.31	NE	<0.001	<0.005 UJ	<0.005		<0.005		<0.005	<0.005	0.0035 J	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	P93C-ROX-012414	1/24/2014		46.44	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0047	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P93C-ROX-041714	4/17/2014		47.34	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0043	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P93C-ROX-071714	7/17/2014		45.61	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0061 J	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P93C-ROX-101514	10/15/2014		44.99	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0046	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P93C-ROX-011915	1/19/2015	92.47 - 97.47	46.77	NE	<0.1	<0.5	<0.5		<0.5		<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.1	<0.1	<0.5	<0.5	<0.1	<0.1		<0.5	<0.5	<0.5	<0.1	<0.1	<0.1
	P93C-ROX-021915	2/19/2015		46.77	NE	<1	<5	<2		<10		<1	<5	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1		<2	<2	<10	<2	<1	<3
	P93C-ROX-041615	4/16/2015	92.47 - 97.47	48.22	NE	<0.1	<0.5	<0.5		<0.5		<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.1	0.0295 J	<0.5	<0.5	<0.1	<0.1		<0.5	<0.5	<0.5	<0.1	<0.1	<0.1
P-93D	P93D-ROX-080812	8/8/2012	125.75 - 127.75	43.71	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.0092 U	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P93D-ROX-110812	11/8/2012		NM	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0023	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P93D-ROX-012213	1/22/2013		44.21	NE	0.00069 J	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		0.0015 J	<0.005	<0.005	<0.001	<0.001	<0.001
	P93D-ROX-041113	4/11/2013		46.37	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P93D-ROX-071213	7/12/2013		43.51	NE	<0.001	<0.005	<0.005 UJ		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001 UJ	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	P93D-ROX-101113	10/11/2013		44.24	NE	<0.001	<0.005 UJ	<0.005		<0.005		<0.005	<0.005	0.00066 J J	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	P93D-ROX-013114	1/31/2014		46.62	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0011	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P93D-ROX-041414	4/14/2014		47.54	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	0.0017 J	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P93D-ROX-071714	7/17/2014		45.78	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0011 J	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P93D-ROX-101514	10/15/2014		45.14	NE	<0.01	<0.05	<0.05		<0.05		<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.01	<0.01	<0.05	<0.05	<0.01	<0.01		0.0083 J	<0.05	<0.05	<0.01	<0.01	<0.01
	P93D-ROX-110414	11/4/2014		45.14	NE	0.0013	<0.005	<0.005		<0.005		<0.005	<0.005	0.002	<0.005	0.00067 J	<0.005	<0.001	0.0018	<0.005	<0.005	<0.001	<0.001		0.00057 J	<0.005	<0.005	<0.001	<0.001	<0.001
	P93D-ROX-012315	1/23/2015		42.28	NE	<0.25	<1.3	<1.3		<1.3		<1.3	<1.3	<0.25	<1.3	<1.3	<1.3	<0.25	<0.25	<1.3	<1.3	<0.25	<0.25		<1.3	<1.3	<1.3	<0.25	<0.25	<0.25
	P93D-ROX-021915	2/19/2015		42.28	NE	<2.5	<13	<5		<25		<2.5	<13	<2.5	<13	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5		<5	<5	<25	<5	<2.5	<7.5
	P93D-ROX-042015	4/20/2015	125.75 - 127.75	48.52	NE	<0.1	<0.5	<0.5		<0.5		<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.1	<0.1	<0.5	<0.5	<0.1	<0.1		<0.5	<0.5	<0.5	<0.1	<0.1	<0.1
P-114	P114-ROX-080912	8/9/2012	32.67 - 52.67	29.13	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.00083 J	<0.0001	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		0.00039 J	<0.005	<0.005	<0.001	<0.001	<0.001
	P114-ROX-110912	11/9/2012		30.90	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0076 J	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	0.0013 J	<0.001	0.0013 J
	P114-ROX-012313	1/23/2013		30.22	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.003 J	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	P114-ROX-041513	4/15/2013		31.80	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0051	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P114-ROX-071813	7/18/2013		27.22	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0023 J	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	P114-ROX-071813-DUP	7/18/2013		27.22	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0022 J	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001
	P114-ROX-101713	10/17/2013		29.43	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0036	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P114-ROX-012814	1/28/2014		32.11	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0153	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P114-ROX-042114	4/21/2014		32.22	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0093	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P114-ROX-071814	7/18/2014		30.87	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0037	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
	P114-ROX-101714	10/17/2014		29.43	NE	0.00045 J J	<0.005	<0.005		<0.005		<0.005	<0.005	0.0098 J	<0.005	0.00087 J J	<0.005	<0.001	<0.001	<0.005 UJ	<0.005	<0.001	<0.001		<0.005	0.00043 J J	<0.005 UJ	0.00059 J J	<0.001	0.00059 J J
	P114-ROX-012115	1/21/2015		31.53	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0268 J	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		0.00046 J J	<0.005	<0.005	0.00068 J J	<0.001	0.00093 J J
	P114-ROX-041715	4/17/2015	32.67 - 52.67	NM	NE	<0.001	<0.005	<0.005		<0.005		<0.005	<0.005	0.0237	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						VOCs																							
						Ethylbenzene	Ethyl methacrylate	Hexachlorobutadiene	Hexane	2-Hexanone (Methyl N-Butyl Ketone)	Isopentane	Isopropylbenzene (Cumene)	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene	Styrene	Tetrachloroethene	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,2-Trichloroethane	Trichloroethene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl acetate	m,p-Xylenes	o-Xylenes	Xylenes (total)
			Screening Values (mg/L)			0.7 [1]		0.007 [3]	0.42 [3]	0.035 [3]		0.7 [1]	0.56 [3]	0.07 [1]	0.14 [1]	0.7 [3]	0.1 [1]	0.005 [1]	1.0 [1]	0.0056 [3]	0.07 [1]	0.005 [1]	0.005 [1]			0.07 [3]	7.0 [2]	10 [1]		10 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																							
ROST-3-MW (ROST-3-PZ)	ROST3PZ-ROX-080712	8/7/2012	40.00 - 50.00	39.00	NE	0.0047	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	0.00038	<0.005	<0.005	<0.001	0.0015	<0.005	<0.005	<0.001	<0.001		0.0042 J	0.0012 J	<0.005	0.0289	0.0074	0.0363
	ROST3PZ-ROX-110112	11/1/2012		40.82	NE	0.0018	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		0.0026 J	<0.005	<0.005	0.0122	0.0037	0.0159
	ROST3MW-ROX-012313	1/23/2013	37.81 - 47.81	41.50	NE	0.0296	<0.005	<0.005		<0.005		0.0066	<0.005	<0.001	0.0076	0.0156	<0.005	<0.001	0.0016	<0.005	<0.005	<0.001	<0.001		0.0786	0.022	<0.005 UJ	0.114	0.0159	0.13
	ROST3MW-ROX-040513	4/5/2013		42.24	NE	0.0136	<0.005	<0.005		<0.005		0.0032 J	<0.005	<0.001	0.132 J	0.0082	<0.005	<0.001	0.0076	<0.005	<0.005	<0.001	<0.001		0.0531	0.0145	<0.005	0.0603	0.0126	0.0729
	ROST3MW-ROX-071113	7/11/2013		39.50	NE	0.218	<0.005	<0.005		<0.005 UJ		0.0146	<0.005	<0.001	0.0411	0.0279	<0.005	<0.001	0.014	<0.005	<0.005	<0.001	<0.001		0.164	0.0373	<0.005 UJ	0.644	0.124	0.768
	ROST3-MW-ROX-100913	10/9/2013		40.16	NE	0.0182	<0.005	<0.005 UJ		<0.005		0.0017 J	<0.005	<0.001	0.0045 J	0.0029 J	<0.005	<0.001	0.0018	<0.005	<0.005	<0.001	<0.001		0.0168	0.0035 J	<0.005	0.0422	0.0123	0.0546
	ROST3MW-ROX-011714	1/17/2014		42.20	NE	0.008	<0.005	<0.005		<0.005		0.00099 J	<0.005	<0.001	<0.005	0.002 J	<0.005	<0.001	0.0012	<0.005	<0.005	<0.001	<0.001		0.0207	0.0057	<0.005	0.0377	0.0063	0.044
	ROST3MW-ROX-041014	4/10/2014		42.80	NE	0.0055	<0.005	<0.005		<0.005		0.00043 J	<0.005	<0.001	0.00084 J	0.00082 J	<0.005	<0.001	0.0015	<0.005	<0.005	<0.001	<0.001		0.0121	0.003 J	<0.005	0.0287	0.0028	0.0315
	ROST3MW-ROX-071414	7/14/2014		41.88	NE	0.008	<0.005	<0.005		<0.005		0.00053 J	<0.005	<0.001	0.0045 J	0.00098 J	<0.005	<0.001	0.0024	<0.005	<0.005	<0.001	<0.001		0.0132	0.0032 J	<0.005	0.0371	0.0041	0.0412
	ROST3MW-ROX-100914	10/9/2014		41.31	NE	0.0398	<0.005	<0.005		<0.005		0.0021 J	<0.005	<0.001	0.0061	0.0028 J	<0.005	<0.001	0.0032	<0.005	<0.005	<0.001	<0.001		0.018	0.005	<0.005 UJ	0.0651	0.0205	0.0856
	ROST3MW-ROX-011515	1/15/2015		41.83	NE	0.0144	<0.005	<0.005		<0.005		0.0016 J	<0.005	<0.001	0.0061	0.0021 J	<0.005	<0.001	0.0011	<0.005	<0.005	<0.001	<0.001		0.0126	0.0036 J	<0.005	0.0166	0.0042	0.0209
	ROST3MW-ROX-041315	4/13/2015	37.81 - 47.81	43.43	NE	0.0085	<0.005	<0.005		<0.005		0.0014 J	<0.005	<0.001	<0.005	0.0015 J	<0.005	<0.001	0.0008 J	<0.005	<0.005	<0.001	<0.001		0.0055	0.00068 J	<0.005	0.0015	0.0029	0.0044
ROST-4-PZ(C)	ROST4PZ-C-ROX-072512	7/25/2012	34.95 - 44.95	39.10	NE	0.177	<0.005	<0.005 UJ		<0.005		0.0036 J	<0.005	<0.001	0.0331	0.0059	<0.005	<0.001	0.0596	<0.005	<0.005	<0.001	<0.001		0.0374	0.0076	<0.005	0.373	0.207	0.581
	ROST4PZC-ROX-102912	10/29/2012		40.75	NE	0.0014	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	0.0021	<0.001	0.0021
	ROST4PZ(C)-ROX-011113	1/11/2013		41.42	NE	0.0013	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001		0.002 J	0.0014 J	<0.005	0.0018	<0.001	0.0018
	ROST4PZC-ROX-041013	4/10/2013		42.27	NE	0.0028 J	<0.005	<0.005		<0.005 UJ		0.00061 J J	<0.005 UJ	<0.001	<0.005	0.0011 J	<0.005 UJ	<0.001 UJ	0.0006 J J	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ		0.0016 J	<0.005	<0.005	<0.001 UJ	<0.001 UJ	<0.001 UJ
	ROST4PZC-ROX-071113	7/11/2013		40.18	NE	0.0651	<0.005	<0.005		<0.005 UJ		0.0025 J	<0.005	<0.001	0.0189	0.0041 J	<0.005	<0.001	0.041	<0.005	<0.005	<0.001	<0.001		0.0194	0.0044 J	<0.005 UJ	0.126	0.0649	0.191
	ROST4PZC-ROX-100913	10/9/2013		39.91	NE	0.0064	<0.005	<0.005 UJ		<0.005		0.00066 J	<0.005	<0.001	0.0054	0.0012 J	<0.005	<0.001	0.0013	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	0.0101	0.0054	0.0155
	ROST4PZC-ROX-011714	1/17/2014		41.92	NE	0.0039	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	0.00073 J	<0.005	<0.001	0.0014	<0.005	<0.005	<0.001	<0.001		0.0017 J	<0.005	<0.005	0.0124	0.0057	0.018
	ROST4PZC-ROX-041014	4/10/2014		42.05	NE	0.00059 J	<0.005	<0.005		<0.005		<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	<0.001	0.00057 J	<0.005	<0.005	<0.001	<0.001		<0.005	<0.005	<0.005	0.0015	0.0015	0.003
	ROST4C-ROX-071114	7/10/2014		42.22	NE	0.0594	<0.005	<0.005		<0.005		0.00037 J	<0.005	<0.001	0.0104	<0.005	<0.005	<0.001	0.0421	<0.005	<0.005	<0.001	<0.001		0.00082 J	<0.005	<0.005	0.0574	0.0815	0.139
	ROST4PZC-ROX-100914	10/9/2014		41.30	NE	0.0688	<0.005	<0.005		<0.005		0.0011 J	<0.005	<0.001	0.0169	0.0011 J	<0.005	<0.001	0.0196	<0.005	<0.005	<0.001	<0.001		0.0046 J	0.00047 J	<0.005 UJ	0.112	0.0634	0.176
	ROST4PZC-ROX-011515	1/15/2015		41.65	NE	0.0035	<0.005	<0.005		<0.005		0.00036 J	<0.005	<0.001	<0.005	0.00056 J	<0.005	<0.001	0.0005 J	<0.005	<0.005	<0.001	<0.001		0.0011 J	<0.005	<0.005	0.0026	0.0031	0.0057
	ROST4PZC-ROX-041315	4/13/2015	34.95 - 44.95	43.00	NE	0.0806	<0.005	<0.005		<0.005		0.0013 J	<0.005	<0.001	0.0146	0.0013 J	<0.005	<0.001	0.0313	<0.005	<0.005	<0.001	<0.001		0.0052	0.00075 J	<0.005	0.148	0.0203	0.168
T-12	T12-ROX-080212	8/2/2012	46.46 - 72.46	41.92	NE	0.573	<0.05	<0.05		<0.05		0.0297 J	<0.05	<0.01	0.0625	0.0486 J	<0.05	<0.01	0.197	<0.05	<0.05	<0.01	<0.01		0.403	0.0474 J	<0.05	1.32	0.0709	1.39
	T12-ROX-110512	11/5/2012		43.91	NE	1.73	<0.05	<0.05		<0.05		0.0468 J	<0.05	<0.01	0.125	0.0831	<0.05	<0.01	0.322	<0.05	<0.05	<0.01	<0.01		0.385	0.0543	<0.05	2.55	0.176	2.73
	T12-ROX-011813	1/18/2013		44.50	NE	0.426	<0.025	<0.025		<0.025		0.031	<0.025	<0.005	0.129	0.0466	<0.025	<0.005	0.184	<0.025	<0.025	<0.005	<0.005		0.42	0.0407	<0.025	1.11	0.0252	1.13
	T12-ROX-041513	4/15/2013		44.99	NE	1.03	<0.05	<0.05		<0.05		0.0405 J	<0.05	<0.01	0.266 J	0.076	<0.05	<0.01	0.592	<0.05	<0.05	<0.01	<0.01		0.309	<0.05	<0.05	1.2	0.104	1.3
	T12-ROX-071613	7/16/2013		42.33	NE	0.45	<0.005	<0.005 UJ		<0.005		0.0363 J	<0.005	<0.001	0.122 J	0.0627 J	<0.005	<0.001	0.186 J	<0.005	<0.005	<0.001	<0.001		0.361 J	0.0238 J	<0.005 UJ	0.794 J	0.0145 J	0.808 J
	T12-ROX-101513	10/15/2013		43.73	NE	1.82	<0.025	<0.025		<0.025		0.0618	<0.025	<0.005	0.215 J	0.114	<0.025	<0.005	0.697	<0.025	<0.025	<0.005	<0.005		0.575	0.0607	<0.025	2.43	0.139	2.57
	T12-ROX-012414	1/24/2014		45.26	NE	0.518	<0.005	<0.005		<0.005		0.0362	<0.005	<0.001	0.171	0.0676	<0.005	<0.001	0.421	<0.005	<0.005	<0.001	<0.001		0.526	0.0507	<0.005	1.12	0.0469	1.23
	T12-ROX-041514	4/15/2014		46.72	NE	0.376	<0.005	<0.005		<0.005		0.0306	<0.005	<0.001	0.12	0.0534	<0.005	<0.001	0.406	<0.005	<0.005	<0.001	<0.001		0.22 J	0.0339	<0.005	0.841	0.0401	0.864
	T12-ROX-070814	7/8/2014		45.13	NE	0.614	<0.005	<0.005		<0.005		0.0577 J	<0.005	<0.001	0.146	0.0912	<0.005	<0.001	0.686	<0.005	<0.005	<0.001	<0.001		0.425	0.0589	<0.005	1.25	0.0909	1.3
	T12-ROX-101714	10/17/2014		44.40	NE	1.75	<0.05	<0.05		<0.05		0.0459 J	<0.05	<0.01	0.184 J	0.0707	<0.05	<0.01	0.722	<0.05 UJ	<0.05	<0.01	<0.01		0.244	0.0391 J	<0.05 UJ	2.25	0.114	2.36
	T12-ROX-011915	1/19/2015		45.27	NE	0.596	<0.05	<0.05		<0.05		0.0432 J	<0.05	0.0033 J	0.196	0.0745	<0.05	<0.01	0.337	<0.05	<0.05	<0.01	<0.01		0.391	0.0521	<0.05	1.3	0.0747	1.38
	T12-ROX-041515	4/15/2015	46.46 - 72.46	46.73	NE	1.34	<0.005	<0.005		<0.005		0.0662	<0.005	<0.001	0.131	0.117	<0.005	<0.001	0.658	<0.005	<0.005	<0.001	<0.001		0.331	0.0543	<0.005	1.62	0.177	1.62

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						SVOCs																			
						Acenaphthene	Acenaphthylene	Aniline	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl alcohol	bis(2-Chloroethyl)ether	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	2-Chlorophenol	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)anthracene	Dibenzofuran	2,4-Dichlorophenol	Diethyl phthalate	2,4-Dimethylphenol
					Screening Values (mg/L)	0.42 [1]	0.21 [3]	0.023 [3]	2.1 [1]	0.00013 [1]	0.0002 [1]	0.00018 [1]	0.21 [3]	0.00017 [1]	28 [1]	0.7 [3]	0.01 [2]	0.006 [2]	1.4 [2]		0.035 [2]	0.012 [1]	0.0003 [1]	0.007 [3]	0.021 [2]	5.6 [1]	0.14 [2]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																					
MW-01	MW1-ROX-073012	7/30/2012	48.80 - 58.80	39.39	NE	<0.00011	<0.00011	<0.011 UJ	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	0.00032 J	<0.011
	MW1-ROX-102612	10/26/2012		41.22	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000057	<0.00011	<0.000057	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0057	0.00099 J	<0.0057	<0.011	<0.0057	<0.00011	<0.00011	<0.0023	<0.011	<0.0057	<0.011
	MW1-ROX-121712	12/17/2012		41.22	NE																						
	MW1-ROX-011013	1/10/2013		41.89	NE	<0.000024 U	<0.0001	<0.01 UJ	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	MW1-ROX-040913	4/9/2013		42.55	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0011 U	<0.011
	MW1-ROX-070813	7/8/2013		39.56	NE	<0.000026 U	<0.0001	<0.01	<0.0001	<0.000051	<0.0001	0.000027 J	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.0024 U	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01
	MW1-ROX-100313	10/3/2013		40.28	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	0.00065 J	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	MW1-ROX-011414	1/14/2014		42.77	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0053	<0.0021	<0.0053	<0.011 UJ	<0.0053 UJ	<0.00011	<0.00011	<0.0021	<0.011 UJ	<0.0053	<0.011 UJ
	MW1-ROX-040714	4/7/2014		43.28	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	0.003 J J	<0.011	<0.0054	<0.0022	<0.0054	<0.011 UJ	<0.0057 UJ	<0.00011	<0.00011	<0.0022	<0.011 UJ	<0.0054	<0.011 UJ
	MW1-ROX-070914	7/9/2014		42.09	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	MW1-ROX-100614	10/6/2014		41.1	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW1-ROX-011215	1/12/2015		42.73	NE	0.00003 J	0.000027 J	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011 UJ	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW1-ROX-040615	4/6/2015	48.80 - 58.80	44.11	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	0.00046 J	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
MW-02	MW2-ROX-073012	7/30/2012	49.87 - 59.87	40.60	NE	0.000051 J	<0.00011	<0.011 UJ	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	0.00059 J	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	0.00036 J	0.0045 J
	MW2-ROX-102612	10/26/2012		42.35	NE	0.000093 J	<0.00011	<0.011	<0.00011	0.00016	<0.00011	<0.000054	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	0.0034 J
	MW2-ROX-011113	1/11/2013		42.94	NE	0.00016	0.000019 J	<0.011 UJ	<0.00011	<0.000056	0.000027 J	0.000039 J	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW2-ROX-040913	4/9/2013		43.70	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	0.005 J
	MW2-ROX-071113	7/11/2013		40.82	NE	0.000035 J	<0.00011	<0.011	<0.00011	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0055	0.00063 J	<0.0055	<0.011	<0.0055	<0.00011	<0.00011	<0.0022	<0.011	<0.0055	0.005 J
	MW2-ROX-100813	10/8/2013		41.73	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	MW2-ROX-012014	1/20/2014		44.00	NE	<0.00011	0.00018	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW2-ROX-041014	4/10/2014		44.66	NE	<0.00012	<0.00012	<0.012	<0.00012	<0.00006	<0.00012	<0.00006	<0.00012	<0.00012	<0.012 UJ	<0.012	<0.006	<0.0024	<0.006	<0.012	<0.006	<0.00012	<0.00012	<0.0024	<0.012	<0.006	<0.012
	MW2-ROX-071414	7/14/2014		43.13	NE	0.000084 J	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	0.00037 J	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	MW2-ROX-101014	10/10/2014		42.49	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01
	MW2-ROX-011615	1/16/2015		44.1	NE	0.00018	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW2-ROX-041315	4/13/2015	49.87 - 59.87	45.56	NE	0.000041 J	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	0.001 J	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
MW-03	MW3-ROX-072712	7/27/2012	34.67 - 44.67	26.60	NE	<0.00011	<0.00011	<0.011 UJ	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011 UJ	<0.00011	<0.011	<0.011	<0.0053	<0.00067 U	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW3-ROX-102512	10/25/2012		28.39	NE	<0.0001	<0.0001	<0.01 UJ	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.00059 U	<0.01
	MW3-ROX-010913	1/9/2013		29.35	NE	<0.0001	0.000023 J	<0.01 UJ	0.000037 J	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.005	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01
	MW3-ROX-040813	4/8/2013		29.74	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000057	<0.00011	<0.000057	<0.00011	<0.00011	<0.011	<0.011	<0.0057	<0.0023	<0.0057	<0.011	<0.0057	<0.00011	<0.00011	<0.0023	<0.011	<0.0057	<0.011
	MW3-ROX-071113	7/11/2013		26.32	NE	0.000028 J	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0054	0.0038	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	MW3-ROX-100813	10/8/2013		27.38	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	MW3-ROX-011614	1/16/2014		29.91	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0053	<0.0021	<0.0053	<0.011 UJ	<0.0053 UJ	<0.00011	<0.00011	<0.0021	<0.011 UJ	<0.0053	<0.011 UJ
	MW3-ROX-040914	4/9/2014		30.50	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	0.00038 J	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW3-ROX-071114	7/10/2014		29.05	NE	<0.0001	<0.0001	<0.011	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.011	<0.011	<0.0054	0.0013 J	<0.0054	<0.011	<0.0054	0.000028 J	<0.0001	<0.0022	<0.011	<0.0054	<0.011
	MW3-ROX-100914	10/9/2014		28.18	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW3-ROX-011515	1/15/2015		29.65	NE	0.000027 J	<0.00011	<0.011	0.000021 J J	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW3-ROX-041015	4/10/2015	34.67 - 44.67	31.16	NE	0.000018 J	<0.0001	<0.011	0.000019 J	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.011	<0.011	<0.0053	0.00073 J U	<0.0053	<0.011	<0.0053	<0.0001	<0.0001	<0.0021	<0.011	<0.0053	<0.011

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						SVOCs																		
						Acenaphthene	Acenaphthylene	Aniline	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl alcohol	bis(2-Chloroethyl)ether	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	2-Chlorophenol	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)anthracene	Dibenzofuran	2,4-Dichlorophenol	Diethyl phthalate	2,4-Dimethylphenol
					Screening Values (mg/L)	0.42 [1]	0.21 [3]	0.023 [3]	2.1 [1]	0.00013 [1]	0.0002 [1]	0.00018 [1]	0.21 [3]	0.00017 [1]	28 [1]	0.7 [3]	0.01 [2]	0.006 [2]	1.4 [2]		0.035 [2]	0.012 [1]	0.0003 [1]	0.007 [3]	0.021 [2]	5.6 [1]	0.14 [2]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																				
MW-04	MW4-ROX-072512	7/25/2012	46.06 - 56.06	37.63	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	0.0056 J	<0.01	<0.0051	<0.00079 U	0.00039 J	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	0.0014 J	<0.01
	MW4-ROX-072512-Dup	7/25/2012		37.63	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000051	<0.0001	<0.000046 U	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.00069 U	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	0.0012 J	<0.01
	MW4-ROX-102912	10/29/2012		39.45	NE	<0.0001	<0.0001	<0.01 UJ	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	MW4-ROX-011113	1/11/2013		40.20	NE	<0.00011	<0.00011	<0.011 UJ	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW4-ROX-011113-DUP	1/11/2013		40.20	NE	<0.00012	<0.00012	<0.012 UJ	<0.00012	<0.00006	<0.00012	<0.00006	<0.00012	<0.00012	<0.012	<0.012	<0.006	<0.0024	<0.006	<0.012	<0.006	<0.00012	<0.00012	<0.0024	<0.012	<0.006	<0.012
	MW4-ROX-030413	3/4/2013		40.20	NE																						
	MW4-ROX-040913	4/9/2013		40.90	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW4-ROX-040913-DUP	4/9/2013		40.90	NE	<0.00011	<0.00011	<0.011 UJ	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053 UJ	<0.011
	MW4-ROX-071713	7/17/2013		37.61	NE	<0.000036 U	<0.00011	<0.011	<0.00011	<0.000055	0.00004 J	0.000034 J	0.000061 J	<0.00011	<0.011	<0.011	<0.0055	<0.0022	<0.0055	<0.011	<0.0055	<0.00011	<0.00011	<0.0022	<0.011	<0.0055	<0.011
	MW4-ROX-101613	10/16/2013		38.80	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0054	<0.0022	<0.0054	<0.011 UJ	<0.0055 UJ	<0.00011	<0.00011	<0.0022	<0.011 UJ	<0.0054	<0.011 UJ
	MW4-ROX-013014	1/30/2014		41.09	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0054	<0.0022	<0.0054	<0.011 UJ	<0.0054 UJ	<0.00011	<0.00011	<0.0022	<0.011 UJ	<0.0054	<0.011 UJ
	MW4-ROX-041614	4/16/2014		41.91	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW4-ROX-071614	7/16/2014		40.18	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	0.00038 J	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	MW4-ROX-101614	10/16/2014		39.49	NE	<0.00012	<0.00012	<0.012	<0.00012	<0.000059	<0.00012	<0.000059	<0.00012	<0.00012	<0.012	<0.012	<0.0059	<0.0024	<0.0059	<0.012	<0.0059	<0.00012	<0.00012	<0.0024	<0.012	<0.0059	<0.012
	MW4-ROX-012115	1/21/2015		41.27	NE	0.000019 J	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW4-ROX-042115	4/21/2015		42.58	NE	0.000027 J	<0.0001	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
MW-05	MW5-ROX-072512	7/25/2012	33.97 - 43.97	26.18	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.00064 U	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	0.0011 J	<0.01
	MW5-ROX-102912	10/29/2012		28.16	NE	<0.0001	<0.0001	<0.01 UJ	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01
	MW5-ROX-011113	1/11/2013		28.75	NE	0.000071 J	0.000066 J	<0.011 UJ	0.000028 J	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011	<0.011	<0.0055	<0.0022	<0.0055	<0.011	<0.0055	<0.00011	<0.00011	<0.0022	<0.011	<0.0055	<0.011
	MW5-ROX-040913	4/9/2013		29.41	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	MW5-ROX-070913	7/9/2013		26.04	NE	<0.0001	<0.0001	<0.01	<0.0001	0.0001 J	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.005	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01
	MW5-ROX-100813	10/8/2013		26.97	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011	<0.011	<0.0055	<0.0022	<0.0055	<0.011	<0.0055	<0.00011	<0.00011	<0.0022	<0.011	<0.0055	<0.011
	MW5-ROX-011714	1/17/2014		29.59	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW5-ROX-041014	4/10/2014		30.09	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW5-ROX-071414	7/14/2014		28.59	NE	0.000075 J	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW-5-ROX-100914	10/9/2014		27.75	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	MW5-ROX-011515	1/15/2015		29.34	NE	0.00012	<0.00011	<0.011	0.00007 J J	0.000035 J J	<0.00011	<0.000053	0.00002 J J	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	0.000025 J J	0.000017 J J	<0.0021	<0.011	<0.0053	<0.011
	MW5-ROX-041315	4/13/2015		30.97	NE	0.000073 J	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
MW-06A	MW6A-ROX-080112	8/1/2012	34.83 - 44.83	28.36	NE	<0.0001	<0.0001	<0.01 UJ	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.005	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01
	MW6A-ROX-102412	10/24/2012		30.06	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW6A-ROX-011413	1/14/2013		31.00	NE	<0.0001	<0.0001	<0.01 UJ	<0.0001	<0.000051	<0.0001	<0.000051	0.000073 J	<0.0001	<0.01 UJ	<0.01	<0.0051	0.00054 J	<0.0051	<0.01	<0.0051	<0.0001	0.000066 J	<0.002	<0.01	<0.0051	<0.01
	MW6A-ROX-040313	4/3/2013		31.62	NE	<0.00011	<0.00011 UJ	<0.011 UJ	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011 UJ	<0.0053	0.00052 J	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW6A-ROX-070913	7/9/2013		28.25	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011	<0.011	<0.0055	<0.0022	<0.0055	<0.011	<0.0055	<0.00011	<0.00011	<0.0022	<0.011	<0.0055	<0.011
	MW6A-ROX-070913-DUP	7/9/2013		28.25	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011	<0.011	<0.0055	<0.0022	<0.0055	<0.011	<0.0055	<0.00011	<0.00011	<0.0022	<0.011	<0.0055	<0.011
	MW6A-ROX-100713	10/7/2013		28.87	NE	0.0001 J	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.00082 U	<0.011
	MW6A-ROX-100713-DUP	10/7/2013		28.87	NE	0.000093 J	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	0.00078 J	<0.011
	MW6A-ROX-011614	1/16/2014		31.62	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	MW6A-ROX-011614-DUP	1/16/2014		31.62	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW6A-ROX-040814	4/8/2014		32.16	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011 UJ	<0.0056	<0.00057 U	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW6A-ROX-040814-DUP	4/8/2014		32.16	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011	<0.011 UJ	<0.0054	<0.00066 U	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	MW6A-ROX-071014	7/10/2014		30.75	NE	<0.00011	0.000075 J	<0.011 UJ	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	MW6A-ROX-100814	10/8/2014		29.84	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW6A-ROX-011415	1/14/2015		31.54	NE	0.000089 J	0.00004 J	<0.011	0.00006 J	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW6A-ROX-040715	4/7/2015		33.08	NE	0.000061 J	0.000085 J	<0.01	0.000027 J	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						SVOCs																			
						Acenaphthene	Acenaphthylene	Aniline	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl alcohol	bis(2-Chloroethyl)ether	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	2-Chlorophenol	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)anthracene	Dibenzofuran	2,4-Dichlorophenol	Diethyl phthalate	2,4-Dimethylphenol
					Screening Values (mg/L)	0.42 [1]	0.21 [3]	0.023 [3]	2.1 [1]	0.00013 [1]	0.0002 [1]	0.00018 [1]	0.21 [3]	0.00017 [1]	28 [1]	0.7 [3]	0.01 [2]	0.006 [2]	1.4 [2]		0.035 [2]	0.012 [1]	0.0003 [1]	0.007 [3]	0.021 [2]	5.6 [1]	0.14 [2]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																					
MW-06B	MW6B-ROX-080112	8/1/2012	64.05 - 69.05	28.39	NE	<0.0001	<0.0001	<0.01 UJ	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	0.00049 J	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01
	MW6B-ROX-102412	10/24/2012		30.11	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	0.00057 J	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01
	MW6B-ROX-011713	1/17/2013		31.11	NE	<0.0001	<0.0001	<0.01 UJ	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.005	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01
	MW6B-ROX-040313	4/3/2013		31.68	NE	<0.00011	<0.00011 UJ	<0.011 UJ	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011 UJ	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	MW6B-ROX-070913	7/9/2013		28.25	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW6B-ROX-100713	10/7/2013		28.93	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.00057 U	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.00084 U	<0.011
	MW6B-ROX-011614	1/16/2014		31.67	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	0.000051 J	<0.00011	<0.011 UJ	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	0.000042 J	<0.0022	<0.011	<0.0054	<0.011
	MW6B-ROX-040814	4/8/2014		32.21	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW6B-ROX-071014	7/10/2014		30.81	NE	<0.00011	<0.00011	<0.011 UJ	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW6B-ROX-100814	10/8/2014		29.87	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW6B-ROX-011415	1/14/2015		31.59	NE	<0.00011	0.000016 J	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	MW6B-ROX-040715	4/7/2015	64.05 - 69.05	33.10	NE	<0.0001	0.000016 J	<0.01	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01
	MW6B-ROX-040715-DUP	4/7/2015		33.10	NE	<0.0001	0.000016 J	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
MW-06C	MW6C-ROX-080112	8/1/2012	84.95 - 89.95	28.15	NE	<0.0001	<0.0001	<0.01 UJ	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.005	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01
	MW6C-ROX-102412	10/24/2012		27.85	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01
	MW6C-ROX-011713	1/17/2013		30.88	NE	<0.0001	<0.0001	<0.01 UJ	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.005	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01
	MW6C-ROX-040313	4/3/2013		31.41	NE	<0.0001	<0.0001 UJ	<0.01 UJ	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01 UJ	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	MW6C-ROX-070913	7/9/2013		28.03	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW6C-ROX-100713	10/7/2013		28.72	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011	<0.011	<0.0055	<0.00056 U	<0.0055	<0.011	<0.0055	<0.00011	<0.00011	<0.0022	<0.011	<0.0013 U	<0.011
	MW6C-ROX-011614	1/16/2014		31.48	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	0.000041 J	<0.00011	<0.011 UJ	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW6C-ROX-040814	4/8/2014		32.01	NE	<0.00012	<0.00012	<0.012	<0.00012	<0.000059	<0.00012	<0.000059	<0.00012	<0.00012	<0.012	<0.012	<0.0059	<0.0024	<0.0059	<0.012	<0.0059	<0.00012	<0.00012	<0.0024	<0.012	<0.0059	<0.012
	MW6C-ROX-071014	7/10/2014		30.60	NE	<0.00011	<0.00011	<0.011 UJ	<0.00011	0.000034 J	<0.00011	<0.000056	0.000035 J	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	0.000037 J	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW6C-ROX-100814	10/8/2014		29.67	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW6C-ROX-011415	1/14/2015		31.41	NE	0.000017 J	<0.00011	<0.011	0.000024 J	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW6C-ROX-040915	4/9/2015	84.95 - 89.95	32.80	NE	<0.00011	<0.00011	<0.011	0.000016 J	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
MW-06D	MW6D-ROX-080212	8/2/2012	104.72 - 109.72	30.56	NE	<0.0001	<0.0001	<0.01 UJ	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	0.00022 J	<0.01
	MW6D-ROX-102412	10/24/2012		29.71	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	MW6D-ROX-011713	1/17/2013		30.75	NE	<0.0001	<0.0001	<0.01 UJ	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.005	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01
	MW6D-ROX-040313	4/3/2013		31.27	NE	<0.00011	<0.00011 UJ	<0.011 UJ	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011 UJ	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW6D-ROX-070913	7/9/2013		27.91	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011	<0.011	<0.0055	<0.0022	<0.0055	<0.011	<0.0055	<0.00011	<0.00011	<0.0022	<0.011	<0.0055	<0.011
	MW6D-ROX-100713	10/7/2013		28.58	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.001 U	<0.011
	MW6D-ROX-011614	1/16/2014		31.33	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	MW6D-ROX-040814	4/8/2014		31.85	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011	<0.011	<0.0055	<0.0022	<0.0055	<0.011	<0.0055	<0.00011	<0.00011	<0.0022	<0.011	<0.0055	<0.011
	MW6D-ROX-071014	7/10/2014		31.47	NE	<0.00011	<0.00011	<0.011 UJ	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW6D-ROX-071014-DUP	7/10/2014		31.47	NE	<0.00011	<0.00011	<0.011 UJ	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	MW6D-ROX-100814	10/8/2014		29.53	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	0.016	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	MW6D-ROX-100814-DUP	10/8/2014		29.53	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW6D-ROX-011415	1/14/2015		31.26	NE	<0.00011	<0.00011	<0.011	0.000026 J	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	MW6D-ROX-011415-DUP	1/14/2015		31.26	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW6D-ROX-040715	4/7/2015	104.72 - 109.72	32.74	NE	0.000016 J	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						SVOCs																			
						Acenaphthene	Acenaphthylene	Aniline	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl alcohol	bis(2-Chloroethyl)ether	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	2-Chlorophenol	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)anthracene	Dibenzofuran	2,4-Dichlorophenol	Diethyl phthalate	2,4-Dimethylphenol
					Screening Values (mg/L)	0.42 [1]	0.21 [3]	0.023 [3]	2.1 [1]	0.00013 [1]	0.0002 [1]	0.00018 [1]	0.21 [3]	0.00017 [1]	28 [1]	0.7 [3]	0.01 [2]	0.006 [2]	1.4 [2]		0.035 [2]	0.012 [1]	0.0003 [1]	0.007 [3]	0.021 [2]	5.6 [1]	0.14 [2]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																					
MW-07	MW7-ROX-080712	8/7/2012	42.92 - 52.92	39.50	NE	0.00024	0.000037 J	<0.01 UJ	0.000022 J	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	0.0006 J	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.00058 U	<0.01
	MW7-ROX-103012	10/30/2012		41.23	NE	0.00031	<0.00012	<0.012 UJ	<0.00012	<0.000058	<0.00012	<0.000058	<0.00012	<0.00012	<0.012	<0.012	<0.0058	0.0015 J	<0.0058	<0.012	<0.0058	<0.00012	<0.00012	<0.0023	<0.012	<0.0058	<0.012
	MW7-ROX-103012-DUP	10/30/2012		41.23	NE	0.00034	<0.00011	<0.011 UJ	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	0.0007 J	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW7-ROX-011513	1/15/2013		42.21	NE	0.00073	0.00011	<0.011 UJ	0.000059 J	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0053	0.00061 J	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW7-ROX-011513-DUP	1/15/2013		42.21	NE	0.00066	0.000093 J	<0.01 UJ	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0052	0.00055 J	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	MW7-ROX-041013	4/10/2013		42.70	NE	0.0012	0.00015	<0.011	0.000089 J	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	0.00083 J	<0.011	<0.0054	<0.011
	MW7-ROX-041013-DUP	4/10/2013		42.70	NE	0.0012	0.00016	<0.011	0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	0.00088 J	<0.011	<0.0053	<0.011
	MW7-ROX-071713	7/17/2013		39.60	NE	0.00019	0.000031 J	<0.011	0.000028 J	0.00004 J	0.000044 J	0.000045 J	0.00008 J	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	0.000077 J	<0.0022	<0.011	<0.0054	<0.011
	MW7-ROX-101613	10/16/2013		40.64	NE	0.00035	<0.00011	<0.011	<0.00011	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011	<0.011	<0.0055	<0.0022	<0.0055	<0.011	<0.0055	<0.00011	<0.00011	<0.0022	<0.011	<0.0055	<0.011
	MW7-ROX-013014	1/30/2014		42.94	NE	0.00028	<0.0001	<0.01	0.00029	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.005	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01
	MW7-ROX-041614	4/16/2014		43.79	NE	0.00034	<0.0001	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	MW7-ROX-071614	7/16/2014		42.05	NE	0.00024	<0.0001	<0.01	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	MW7-ROX-071614-DUP	7/16/2014		42.05	NE	0.00022	<0.0001	<0.01	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	MW7-ROX-101614	10/16/2014		41.31	NE	0.00024	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW7-ROX-101614-DUP	10/16/2014		41.31	NE	0.00022	<0.00011	<0.011	<0.00011	<0.000057	<0.00011	<0.000057	<0.00011	<0.00011	<0.011	<0.011	<0.0057	<0.0023	<0.0057	<0.011	<0.0057	<0.00011	<0.00011	<0.0023	<0.011	<0.0057	<0.011
	MW7-ROX-012215	1/22/2015		43.45	NE	0.00026	0.000051 J	<0.011	0.000056 J J	<0.00005 U	0.000028 J	0.00013 J	0.000034 J	0.000026 J	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.000046 U	0.000025 J	<0.0021	<0.011	<0.0053	0.00072 J
	MW7-ROX-012215-DUP	1/22/2015		43.45	NE	0.00025	0.000044 J	<0.01	0.00046 J	<0.000052	<0.0001	<0.000052 UJ	<0.0001	<0.0001	<0.01	<0.01	<0.0052	0.00039 J	<0.0052	<0.01	<0.0052	<0.00021 U	<0.0001	<0.0021	<0.01	<0.0052	0.00071 J
	MW7-ROX-042115	4/21/2015	42.92 - 52.92	44.63	NE	0.00038	0.000059 J	<0.01	0.000055 J	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0051	0.000022 J	<0.0001	0.00028 J	<0.01	<0.0051	0.0014 J
	MW7-ROX-042115-DUP	4/21/2015		44.63	NE	0.00036	0.000053 J	<0.01	0.00005 J	<0.000051	0.000024 J	<0.000051	0.000018 J	<0.0001	<0.01	<0.01	<0.0051	0.00033 J	<0.0051	<0.01	<0.0051	0.000028 J	0.000016 J	<0.002	<0.01	<0.0051	0.0012 J
MW-08	MW8-ROX-080712	8/7/2012	33.60 - 43.60	30.97	NE	0.00023	0.00013	<0.011 UJ	0.000055 J	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	0.00051 J	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	0.00035 J	<0.011	<0.0016 U	0.015
	MW8-ROX-080712-DUP	8/7/2012		30.97	NE	0.0002	0.00029	<0.011 UJ	0.000071 J	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	0.00043 J	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	0.0004 J	<0.011	<0.0018 U	0.0158
	MW8-ROX-103012	10/30/2012		32.32	NE	0.00026	0.00011	<0.011 UJ	0.00044	<0.00087 U	0.00053 B	0.00057 B	0.00058 B	0.00064 B	<0.011	<0.011	<0.0053	0.0012 J	0.00086 J	<0.011	<0.0053	0.00066 B	0.00059 B	<0.0021	<0.011	<0.0053	0.0085 J
	MW8-ROX-011513	1/15/2013		33.30	NE	0.00017	0.000085 J	<0.011 UJ	0.000029 J	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0056	0.00089 J	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	0.019
	MW8-ROX-041013	4/10/2013		33.77	NE	0.00018	0.000059 J	<0.011	0.000072 J	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	0.0023	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	0.0358
	MW8-ROX-071713	7/17/2013		30.43	NE	0.0002	<0.0001	<0.01	0.000049 J	<0.000052	0.000021 J	<0.000052	0.00004 J	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	0.009 J
	MW8-ROX-071713-DUP	7/17/2013		30.43	NE	0.00019	0.000056 J	<0.011	0.000061 J	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	0.0004 J	<0.011	<0.0054	0.0089 J
	MW8-ROX-101613	10/16/2013		31.59	NE	0.00021	0.000089 J	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	0.0005 J	<0.011	<0.0054	0.0066 J
	MW8-ROX-101613-DUP	10/16/2013		31.59	NE	0.0002	0.000058 J	<0.012	<0.00012	<0.000059	<0.00012	<0.000059	<0.00012	<0.00012	<0.012	<0.012	<0.0059	<0.0024	<0.0059	<0.012	<0.0059	<0.00012	<0.00012	0.0004 J	<0.012	<0.0059	0.0062 J
	MW8-ROX-013014	1/30/2014		34.02	NE	0.0002	0.000089 J	<0.01	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	0.00053 J	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	0.0005 J	<0.01	<0.0051	0.0124
	MW8-ROX-013014-DUP	1/30/2014		34.02	NE	0.00021	0.000083 J	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	0.00072 J	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	0.00053 J	<0.011	<0.0054	0.0121
	MW8-ROX-041614	4/16/2014		34.73	NE	0.00018	0.000074 J	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	0.0005 J	<0.011	<0.0056	<0.011
	MW8-ROX-041614-DUP	4/16/2014		34.73	NE	0.00016	0.000063 J	<0.01	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	0.00045 J	<0.01	<0.0051	<0.01
	MW8-ROX-071614	7/16/2014		33.01	NE	0.00018	0.000068 J	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	0.00038 J	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	0.00041 J	<0.01	0.00057 J	<0.01
	MW8-ROX-101614	10/16/2014		32.23	NE	0.00021	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	0.0099 J
	MW8-ROX-012215	1/22/2015		34.22	NE	0.00027	0.000073 J	<0.01	0.000035 J	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	0.0172
	MW8-ROX-042115	4/21/2015	33.60 - 43.60	35.41	NE	0.00018	0.000052 J	<0.011	0.000034 J	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	0.00045 J	<0.011	<0.0053	0.0201
MW-09	MW9-ROX-072712	7/27/2012	46.45 - 56.45	41.30	NE	<0.0001	<0.0001	<0.01 UJ	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001 UJ	<0.0001	<0.01	<0.01	<0.005	<0.00043 U	<0.005	<0.01	<0.005	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01
	MW9-ROX-102912	10/29/2012		43.17	NE	<0.0001	<0.0001	<0.01 UJ	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	MW9-ROX-011113	1/11/2013		43.90	NE	0.000068 J	0.000064 J	<0.011 UJ	0.00006 J	<0.000054	<0.00011	0.000026 J	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	MW9-ROX-040913	4/9/2013		44.67	NE	<0.0001 UJ	<0.0001 UJ	<0.01 UJ	<0.0001 UJ	<0.000052 UJ	<0.0001 UJ	<0.000052 UJ	<0.0001 UJ	<0.0001 UJ	<0.01 UJ	<0.01 UJ	<0.0052 UJ	<0.0021 UJ	<0.0052 UJ	<0.01 UJ	<0.0052 UJ	<0.0001 UJ	<0.0001 UJ	<0.0021 UJ	<0.01 UJ	<0.0016 UJ	<0.01 UJ
	MW9-ROX-070813	7/8/2013		42.35	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000035 J	<0.00011	<0.00011		<0.011	<0.0056	<0.0022	<0.0056			<0.00011	<0.00011	<0.0022		<0.0056	
	MW9-ROX-100313	10/3/2013		42.27	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.005	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01
	MW9-ROX-011414	1/14/2014		44.47	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0053	<0.0021	<0.0053	<0.011 UJ	<0.0053 UJ	<0.00011	<0.00011	<0.0021	<0.011 UJ	<0.0053	<0.011 UJ
	MW9-ROX-040714	4/7/2014		44.99	NE	<0.00011	<0.00011	<0.011	<0.00011	0.000024 J	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011 UJ	<0.0056	<0.00054 U	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW9-ROX-070914	7/9/2014		44.35	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	0.00036 J	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	MW9-ROX-100714	10/7/2014		43.52	NE	<0.00012	<0.00012	<0.012	<0.00012	<0.000059	<0.00012	<0.000059	<0.00012	<0.00012	<0.012	<0.012	<0.0059	<0.0024	<0.0059	<0.012	<0.0059	<0.00012	<0.00012	<0.0024	<0.012	<0.0059	<0.012
	MW9-ROX-011315	1/13/2015		44.21	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01 UJ	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	MW9-ROX-040915	4/9/2015	46.45 - 56.45	45.38	NE	0.00002 J	<0.0001	<0.01	0.00002 J	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	0.00026 JB U	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						SVOCs																		
						Acenaphthene	Acenaphthylene	Aniline	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl alcohol	bis(2-Chloroethyl)ether	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	2-Chlorophenol	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)anthracene	Dibenzofuran	2,4-Dichlorophenol	Diethyl phthalate	2,4-Dimethylphenol
					Screening Values (mg/L)	0.42 [1]	0.21 [3]	0.023 [3]	2.1 [1]	0.00013 [1]	0.0002 [1]	0.00018 [1]	0.21 [3]	0.00017 [1]	28 [1]	0.7 [3]	0.01 [2]	0.006 [2]	1.4 [2]		0.035 [2]	0.012 [1]	0.0003 [1]	0.007 [3]	0.021 [2]	5.6 [1]	0.14 [2]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																				
MW-10	MW10-ROX-072712	7/27/2012	44.43 - 54.43	41.21	NE	<0.0001	<0.0001	<0.01 UJ	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001 UJ	<0.0001	<0.01	<0.01	<0.005	<0.00067 U	<0.005	<0.01	<0.005	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01
	MW10-ROX-102612	10/26/2012		43.08	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW10-ROX-121712	12/17/2012		43.08	NE																						
	MW10-ROX-011013	1/10/2013		44.10	NE	<0.0001	<0.0001	<0.01 UJ	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.005	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01
	MW10-ROX-012113	1/21/2013		44.10	NE	<0.0001	<0.0001	<0.02	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.05	<0.02	<0.01	<0.006	<0.01	<0.02	<0.01	<0.0001	<0.0001	<0.01	<0.01	<0.01	<0.01
	MW10-ROX-040913	4/9/2013		44.60	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0018 U	<0.011
	MW10-ROX-070813	7/8/2013		42.27	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0027 U	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW10-ROX-100313	10/3/2013		42.38	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW10-ROX-011514	1/15/2014		44.42	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	0.000096 J	<0.00011	<0.011 UJ	<0.011	<0.0053	0.00054 J	<0.0053	<0.011 UJ	<0.0054 UJ	<0.00011	0.000074 J	<0.0021	<0.011 UJ	<0.0053	<0.011 UJ
	MW10-ROX-040714	4/7/2014		45.00	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011 UJ	<0.0053	<0.00068 U	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW10-ROX-070914	7/9/2014		44.35	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	0.00052 J	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	MW10-ROX-100714	10/7/2014		43.58	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000057	<0.00011	<0.000057	<0.00011	<0.00011	<0.011	<0.011	<0.0057	<0.0023	<0.0057	<0.011	<0.0057	<0.00011	<0.00011	<0.0023	<0.011	<0.0057	<0.011
	MW10-ROX-011315	1/13/2015		44.27	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011 UJ	<0.0056	0.00042 J	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW10-ROX-040815	4/8/2015	44.43 - 54.43	45.30	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01
MW-11	MW11-ROX-072712	7/27/2012	41.66 - 51.66	38.90	NE	<0.00012	<0.00012	<0.012 UJ	<0.00012	<0.000058	<0.00012	<0.000058	<0.00012 UJ	<0.00012	<0.012	<0.012	<0.0058	<0.00056 U	<0.0058	<0.012	<0.0058	<0.00012	<0.00012	<0.0023	<0.012	<0.0058	<0.012
	MW11-ROX-102512	10/25/2012		40.59	NE	<0.00011	<0.00011	<0.011 UJ	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.00042 U	<0.011
	MW11-ROX-011013	1/10/2013		41.43	NE	<0.0001 UJ	<0.0001 UJ	<0.01 UJ	<0.0001 UJ	<0.00005 UJ	<0.0001 UJ	<0.00005 UJ	<0.0001 UJ	<0.0001 UJ	<0.01 UJ	<0.01 UJ	<0.005 UJ	<0.002 UJ	<0.005 UJ	<0.01 UJ	<0.005 UJ	<0.0001 UJ	<0.0001 UJ	<0.002 UJ	<0.01 UJ	<0.005 UJ	<0.01 UJ
	MW11-ROX-040813	4/8/2013		42.02	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW11-ROX-070813	7/8/2013		39.24	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0052 U	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	MW11-ROX-100713	10/7/2013		39.95	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011	<0.011	<0.0055	<0.0011 U	<0.0055	<0.011	<0.0055	<0.00011	<0.00011	<0.0022	<0.011	<0.0011 U	<0.011
	MW11-ROX-011514	1/15/2014		42.16	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011	<0.011	<0.0055	<0.0022	<0.0055	<0.011	<0.0055	<0.00011	<0.00011	<0.0022	<0.011	<0.0055	<0.011
	MW11-ROX-040714	4/7/2014		42.70	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011 UJ	<0.0056	<0.0056 U	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW11-ROX-070914	7/9/2014		41.75	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000057	<0.00011	<0.000057	<0.00011	<0.00011	<0.011	<0.011	<0.0057	<0.0023	<0.0057	<0.011	<0.0057	<0.00011	<0.00011	<0.0023	<0.011	<0.0057	<0.011
	MW11-ROX-100714	10/7/2014		40.89	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	MW11-ROX-011315	1/13/2015		41.93	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011 UJ	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	MW11-ROX-040815	4/8/2015	41.66 - 51.66	43.19	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
MW-12	MW12-ROX-072712	7/27/2012	41.92 - 51.92	39.22	NE	<0.00011	<0.00011	<0.011 UJ	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011 UJ	<0.00011	<0.011	<0.011	<0.0053	<0.0019 U	0.00029 J	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW12-ROX-102512	10/25/2012		40.95	NE	<0.00011	<0.00011	<0.011 UJ	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.00077 U	<0.011
	MW12-ROX-011013	1/10/2013		41.83	NE	<0.0001	<0.0001	<0.01 UJ	<0.0001	<0.000051	<0.0001	0.000026 J	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01
	MW12-ROX-040813	4/8/2013		42.46	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	MW12-ROX-070913	7/9/2013		39.28	NE	<0.00011	<0.00011	<0.011	<0.00011	0.00012 J	<0.00011	<0.000055	<0.00011	<0.00011	<0.011	<0.011	<0.0055	<0.0022	<0.0055	<0.011	<0.0055	<0.00011	<0.00011	<0.0022	<0.011	<0.0055	<0.011
	MW12-ROX-100713	10/7/2013		40.22	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0055	<0.0022	<0.0055	<0.011 UJ	<0.0053 UJ	<0.00011	<0.00011	<0.0022	<0.011 UJ	<0.00062 U	<0.011 UJ
	MW12-ROX-011514	1/15/2014		42.54	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0052	<0.0021	<0.0052	<0.01 UJ	<0.0052 UJ	<0.0001	<0.0001	<0.0021	<0.01 UJ	<0.0052	<0.01 UJ
	MW12-ROX-040814	4/8/2014		43.15	NE	<0.00011	<0.00011	<0.01	<0.00011	<0.000057	<0.00011	<0.000057	<0.00011	<0.00011	<0.01	<0.01 UJ	<0.0051	<0.00039 U	<0.0051	<0.01	<0.0051	<0.00011	<0.00011	<0.002	<0.01	<0.0051	<0.01
	MW12-ROX-070914	7/9/2014		41.97	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW12-ROX-100614	10/6/2014		40.98	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW12-ROX-011215	1/12/2015		42.33	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011 UJ	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW12-ROX-040615	4/6/2015	41.92 - 51.92	43.75	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						SVOCs																		
						Acenaphthene	Acenaphthylene	Aniline	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl alcohol	bis(2-Chloroethyl)ether	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	2-Chlorophenol	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)anthracene	Dibenzofuran	2,4-Dichlorophenol	Diethyl phthalate	2,4-Dimethylphenol
					Screening Values (mg/L)	0.42 [1]	0.21 [3]	0.023 [3]	2.1 [1]	0.00013 [1]	0.0002 [1]	0.00018 [1]	0.21 [3]	0.00017 [1]	28 [1]	0.7 [3]	0.01 [2]	0.006 [2]	1.4 [2]		0.035 [2]	0.012 [1]	0.0003 [1]	0.007 [3]	0.021 [2]	5.6 [1]	0.14 [2]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																				
MW-13	MW13-ROX-080812	8/8/2012	25.57 - 35.57	26.67	NE	0.0001 J	0.00019	<0.011 UJ	0.000063 J	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW13-ROX-110812	11/8/2012		25.30	NE	<0.0001	<0.0001	<0.01 UJ	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.005	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01
	MW13-ROX-012313	1/23/2013		29.26	NE	<0.00011	<0.00011	<0.011 UJ	<0.00011	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011	<0.011	<0.0055	<0.0022	<0.0055	<0.011	<0.0055	<0.00011	<0.00011	<0.0022	<0.011	<0.0055 UJ	<0.011
	MW13-ROX-041213	4/12/2013		29.44	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01
	MW13-ROX-071213	7/12/2013		25.67	NE	<0.00011	<0.000063 U	<0.011	<0.000058 U	<0.00014 U	<0.00011	<0.000054	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0054	0.00079 J	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	MW13-ROX-100913	10/9/2013		26.94	NE	0.000098 J	0.000071 J	<0.01	<0.0001	0.000022 J	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	0.00068 J	<0.0052	<0.01	<0.0052	0.000034 J	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	MW13-ROX-012914	1/29/2014		29.63	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011	<0.011	<0.0055	<0.0022	<0.0055	<0.011	<0.0055	<0.00011	<0.00011	<0.0022	<0.011	<0.0055	<0.011
	MW13-ROX-041114	4/11/2014		30.15	NE	0.00013	0.000066 J	<0.012	<0.00012	<0.00006	<0.00012	<0.00006	<0.00012	<0.00012	<0.012	<0.012	<0.006	<0.00069 U	<0.006	<0.012	<0.006	<0.00012	<0.00012	<0.0024	<0.012	<0.006	<0.012
	MW13-ROX-070714	7/7/2014		28.49	NE	<0.00011	0.000061 J	<0.011	<0.00011	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011	<0.011	<0.0055	<0.0022	<0.0055	<0.011	<0.0055	<0.00011	<0.00011	<0.0022	<0.011	<0.0055	<0.011
	MW13-ROX-101014	10/10/2014		27.48	NE	<0.00012	0.00019	<0.012	<0.00012	<0.00006	<0.00012	<0.00006	<0.00012	<0.00012	<0.012	<0.012	<0.006	<0.0024	<0.006	<0.012	<0.006	<0.00012	<0.00012	<0.0024	<0.012	<0.006	<0.012
	MW13-ROX-011615	1/16/2015		29.09	NE	0.00014	0.00009 J	<0.011	0.000053 J	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	0.00003 J	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW13-ROX-041415	4/14/2015	25.57 - 35.57	30.71	NE	<0.00011	0.000075 J	<0.011	0.000051 J	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	0.0013 J
MW-14	MW14-ROX-080312	8/3/2012	33.42 - 43.42	NM	NE	0.00095	0.00015	<0.011 UJ	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	0.00049 J	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	0.00076 J	0.00096 J	<0.0053	<0.011
	MW14-ROX-103112	10/31/2012		32.02	NE	0.00074	0.00008 J	<0.01 UJ	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.005	<0.002	<0.005	<0.01	<0.005	<0.0001	<0.0001	0.0003 J	<0.01	<0.005	<0.01 UJ
	MW14-ROX-011813	1/18/2013		33.05	NE	0.00092	0.00013	<0.01 UJ	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.005	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01
	MW14-ROX-041113	4/11/2013		33.31	NE	0.00068	0.000098 J	<0.011	<0.00011	0.00013	<0.00011	0.000054	0.000053 J	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	MW14-ROX-071213	7/12/2013		30.36	NE	0.00046 B	<0.000062 U	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0053	0.00066 J	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW14-ROX-101013	10/10/2013		30.80	NE	0.00065	0.00011	<0.011	<0.00011	<0.000057	<0.00011	<0.000057	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0057	<0.0023	<0.0057	<0.011	<0.0057	<0.00011	<0.00011	0.00019 J	<0.011	<0.0057	<0.011
	MW14-ROX-012914	1/29/2014		33.67	NE	0.00062	0.00012	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	0.00056 J	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	MW14-ROX-041114	4/11/2014		34.30	NE	0.00037	0.000089 J	<0.012	<0.00011	<0.000057	<0.00011	<0.000057	<0.00011	<0.00011	<0.012	<0.012	<0.006	<0.00069 U	<0.006	<0.012	<0.006	<0.00011	<0.00011	<0.0024	<0.012	<0.006	<0.012
	MW14-ROX-070714	7/7/2014		32.82	NE	0.00033	0.000063 J	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	0.00048 J	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	MW14-ROX-101414	10/14/2014		31.65	NE	0.00054	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW14-ROX-011615	1/16/2015		33.58	NE	0.00027	0.00006 J	<0.011	0.000015 J	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW14-ROX-041415	4/14/2015	33.42 - 43.42	35.16	NE	0.00026	0.000057 J	<0.01	0.00003 J	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.00011	<0.00011	<0.0021	<0.01	<0.0052	<0.01
MW-16	MW16-ROX-012313	1/23/2013	37.06 - 47.06	43.05	NE	<0.00011	<0.00011	<0.011 UJ	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053 UJ	<0.011
	MW16-ROX-040813	4/8/2013		43.39	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	MW16-ROX-070813	7/8/2013		40.62	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW16-ROX-100813	10/8/2013		41.62	NE	<0.0001 UJ	<0.0001 UJ	<0.01 UJ	<0.0001 UJ	<0.000052 UJ	<0.0001 UJ	<0.000052 UJ	<0.0001 UJ	<0.0001 UJ	<0.01 UJ	<0.01 UJ	<0.0052 UJ	<0.0021 UJ	<0.0052 UJ	<0.01 UJ	<0.0052 UJ	<0.0001 UJ	<0.0001 UJ	<0.0021 UJ	<0.01 UJ	<0.0052 UJ	<0.01 UJ
	MW16-ROX-011514	1/15/2014		43.76	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	0.00061 J	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	MW16-ROX-040914	4/9/2014		44.63	NE	<0.00012	<0.00012	<0.012	<0.00012	<0.000059	<0.00012	<0.000059	<0.00012	<0.00012	<0.012	<0.012	<0.0059	<0.0024	<0.0059	<0.012	<0.0059	<0.00012	<0.00012	<0.0024	<0.012	<0.0059	<0.012
	MW16-ROX-071014	7/10/2014		43.15	NE	<0.00011	<0.00011	<0.011 UJ	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	MW16-ROX-100714	10/7/2014		42.27	NE	<0.00012	<0.00012	<0.012	<0.00012	<0.00006	<0.00012	<0.00006	<0.00012	<0.00012	<0.012	<0.012	<0.006	<0.0024	<0.006	<0.012	<0.006	<0.00012	<0.00012	<0.0024	<0.012	<0.006	<0.012
	MW16-ROX-011315	1/13/2015		43.59	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011 UJ	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW16-ROX-040915	4/9/2015	37.06 - 47.06	44.87	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
MW-22	MW22-ROX-012313	1/23/2013	37.88 - 47.88	41.80	NE	0.00018	<0.0001	<0.01 UJ	0.00002 J	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	0.0031 J	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052 UJ	0.0146
	MW22-ROX-012313-DUP	1/23/2013		41.80	NE	0.00018	<0.00011	<0.011 UJ	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	0.0033 J	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053 UJ	0.0149
	MW22-ROX-040513	4/5/2013		42.23	NE	0.00018	0.000049 J J	<0.011 UJ	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	0.0269
	MW22-ROX-071113	7/11/2013		39.35	NE	0.00026	0.00048	<0.011	0.000035 J	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0054	0.0017 J	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	0.104
	MW22-ROX-071113-DUP	7/11/2013		39.35	NE	0.00018	0.00047	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0056	0.0021 J	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	0.0978
	MW22-ROX-100913	10/9/2013		40.39	NE	0.00019	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	0.0863
	MW22-ROX-100913-DUP	10/9/2013		40.39	NE	0.00018	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	0.0826
	MW22-ROX-012014	1/20/2014		42.49	NE	0.00015	<0.00011	<0.053	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.053	<0.053	<0.027	<0.011	<0.027	<0.053	<0.027	<0.00011	<0.00011	<0.011	<0.053	<0.027	0.0399 J
	MW22-ROX-012014-DUP	1/20/2014		42.49	NE	0.00014	<0.00011	<0.054	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.054	<0.054	<0.027	<0.011	<0.027	<0.054	<0.027	<0.00011	<0.00011	<0.011	<0.054	<0.027	0.0364 J
	MW22-ROX-041014	4/10/2014		43.15	NE	0.0001 J	<0.00011	<0.056	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.056 UJ	<0.056	<0.028	<0.011	<0.028	<0.056	<0.028	<0.00011	<0.00011	<0.011	<0.056	<0.028	0.0316 J
	MW22-ROX-041014-DUP	4/10/2014		43.15	NE	0.00012	<0.00011	<0.056	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.056 UJ	<0.056	<0.028	<0.011	<0.028	<0.056	<0.028	<0.00011	<0.00011	<0.011	<0.056	<0.028	0.032 J
	MW22-ROX-071414	7/14/2014		41.85	NE	0.00013	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	0.00045 J	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	0.0281
	MW22-ROX-101014	10/10/2014		41.43	NE	0.00029	0.00019	<0.013	0.00019	<0.000063	<0.00013	<0.000063	<0.00013	<0.00013	<0.013	<0.013	<0.0063	<0.0025	<0.0063	<0.013	<0.0063	<0.00013	<0.00013	<0.0025	<0.013	<0.0063	<0.013
	MW22-ROX-011615	1/16/2015		42.19	NE	0.00015	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	0.0329
	MW22-ROX-041415	4/14/2015	37.88 - 47.88	43.71	NE	0.00014	<0.0001	<0.01	0.000027 J	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	0.0143

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						SVOCs																		
						Acenaphthene	Acenaphthylene	Aniline	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl alcohol	bis(2-Chloroethyl)ether	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	2-Chlorophenol	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)anthracene	Dibenzofuran	2,4-Dichlorophenol	Diethyl phthalate	2,4-Dimethylphenol
					Screening Values (mg/L)	0.42 [1]	0.21 [3]	0.023 [3]	2.1 [1]	0.00013 [1]	0.0002 [1]	0.00018 [1]	0.21 [3]	0.00017 [1]	28 [1]	0.7 [3]	0.01 [2]	0.006 [2]	1.4 [2]		0.035 [2]	0.012 [1]	0.0003 [1]	0.007 [3]	0.021 [2]	5.6 [1]	0.14 [2]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																					
MW-23	MW23-ROX-012615	1/26/2015	29.02 - 39.02	30.90	NE	<0.001	<0.001	<0.005	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0002	<0.0002	<0.005	<0.005	<0.005	<0.005
	MW23-ROX-040815	4/8/2015		32.24	NE	0.000076 J	<0.0001	<0.01	0.000058 J	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0051	0.000028 J	<0.0001	<0.002	<0.01	<0.0051	<0.01
MW-24	MW24-ROX-040513	4/5/2013	38.89 - 48.89	43.39	NE	<0.0001	<0.0001 UJ	<0.01 UJ	<0.0001	<0.000052	<0.0001	0.000057	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	MW24-ROX-071113	7/11/2013		40.35	NE	0.000024 J	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0054	<0.0022	<0.0054	<0.011 UJ	<0.0053 UJ	<0.00011	<0.00011	<0.0022	<0.011 UJ	<0.0054	<0.011 UJ
	MW24-ROX-100913	10/9/2013		41.27	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW24-ROX-011514	1/15/2014		43.47	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW24-ROX-040914	4/9/2014		44.13	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	MW24-ROX-071114	7/10/2014		42.97	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW24-ROX-100814	10/8/2014		42.16	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	MW24-ROX-011315	1/13/2015		43.17	NE	0.000074 J	0.000077 J	<0.011	0.000022 J	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011 UJ	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW24-ROX-040915	4/9/2015	38.89 - 48.89	44.45	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	0.0003 JB U	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
MW-25	MW25-ROX-102114	10/21/2014	35.59 - 45.59	36.44	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	0.0025 J
	MW25-ROX-012215	1/22/2015		38.45	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	0.00059 J	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	MW25-ROX-042115	4/21/2015	35.59 - 45.59	39.71	NE	0.000032 J	<0.0001	<0.01	0.000016 J	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01
MW-26	MW26-ROX-102114	10/21/2014	38.15 - 48.15	39.43	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW26-ROX-011215	1/12/2015		41.09	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01 UJ	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	MW26-ROX-040815	4/8/2015	38.15 - 48.15	42.52	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
MW-27	MW27-ROX-102114	10/21/2014	39.79 - 49.79	41.57	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW27-ROX-011515	1/15/2015		42.06	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	0.0001 J J	0.00013 J	0.000029 J J	0.000078 J J	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	0.000051 J J	<0.0021	<0.011	<0.00029 U	<0.011
	MW27-ROX-041015	4/10/2015	39.79 - 49.79	43.22	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0054	0.00041 J U	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
MW-28	MW28-ROX-102114	10/21/2014	33.61 - 43.61	36.44	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	MW28-ROX-011515	1/15/2015		41.14	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011	<0.011	<0.0055	<0.0022	0.0007 J	<0.011	<0.0055	<0.00011	<0.00011	<0.0022	<0.011	<0.0055	0.0012 J
	MW28-ROX-041415	4/14/2015	33.61 - 43.61	42.34	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000057	0.000027 J	0.00006	0.00004 J	0.00002 J	<0.011	<0.011	<0.0057	<0.0023	<0.0057	<0.011	<0.0057	<0.00011	<0.00011	<0.0023	<0.011	<0.0057	<0.011
P-54	P54-ROX-080212	8/2/2012	38.00 - 63.00	38.95	NE	<0.00011	<0.00011	<0.011 UJ	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	P54-ROX-103012	10/30/2012		40.70	NE	<0.0001	<0.0001	<0.01 UJ	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01
	P54-ROX-011113	1/11/2013		41.56	NE	<0.00011	<0.00011	<0.011 UJ	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	P54-ROX-041013	4/10/2013		41.80	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000057	<0.00011	<0.000057	<0.00011	<0.00011	<0.011	<0.011	<0.0057	<0.0023	<0.0057	<0.011	<0.0057	<0.00011	<0.00011	<0.0023	<0.011	<0.0057	<0.011
	P54-ROX-050313	5/3/2013		41.80	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	P54-ROX-071113	7/11/2013		39.07	NE	0.000032 J	0.000016 J	<0.01	0.000018 J	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0052	0.00052 J	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	P54-ROX-100813	10/8/2013		39.94	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000057	<0.00011	<0.000057	<0.00011	<0.00011	<0.011	<0.011	<0.0057	<0.0023	<0.0057	<0.011	<0.0057	<0.00011	<0.00011	<0.0023	<0.011	<0.0057	<0.011
	P54-ROX-011514	1/15/2014		42.20	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	0.00058 J	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	P54-ROX-040914	4/9/2014		42.80	NE	<0.00012	<0.00012	<0.012	<0.00012	<0.00006	<0.00012	<0.00006	<0.00012	<0.00012	<0.012	<0.012	<0.006	<0.0024	<0.006	<0.012	<0.006	<0.00012	<0.00012	<0.0024	<0.012	<0.006	<0.012
	P54-ROX-071114	7/10/2014		41.71	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	P54-ROX-100814	10/8/2014		40.88	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	P54-ROX-011415	1/14/2015		41.79	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	P54-ROX-041015	4/10/2015	38.00 - 63.00	43.20	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
P-55	P55-ROX-012113	1/21/2013	40.43 - 50.43	43.60	NE	0.00069	0.00019	<0.02	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.05	<0.02	<0.01	<0.006	<0.01	<0.02	<0.01	<0.0001	<0.0001	0.001 J	<0.01	<0.01	0.004 J
	P55-ROX-012113	1/21/2013		43.60	NE	0.00054	0.00014	<0.01 UJ	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	0.001 J	<0.01	0.00073 J	0.0024 J
	P55-ROX-041513	4/15/2013		43.63	NE	0.00073	0.00021	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001 UJ	<0.0001 UJ	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	0.0017 J	<0.01	<0.0052	<0.01
	P55-ROX-071613	7/16/2013		40.06	NE	0.00066	0.0002	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056 UJ	<0.00066 U	<0.0056	<0.011	<0.0056 UJ	<0.00011	<0.00011	0.0016 J	<0.011	<0.0056	0.0024 J
	P55-ROX-101013	10/10/2013		41.67	NE	0.00071	0.00019	<0.011	<0.00011	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0055	0.0006 J	<0.0055	<0.011	<0.0055	<0.00011	<0.00011	0.0016 J	<0.011	<0.0055	0.0014 J

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						SVOCs																				
						Acenaphthene	Acenaphthylene	Aniline	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl alcohol	bis(2-Chloroethyl)ether	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	2-Chlorophenol	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)anthracene	Dibenzofuran	2,4-Dichlorophenol	Diethyl phthalate	2,4-Dimethylphenol
					Screening Values (mg/L)	0.42 [1]	0.21 [3]	0.023 [3]	2.1 [1]	0.00013 [1]	0.0002 [1]	0.00018 [1]	0.21 [3]	0.00017 [1]	28 [1]	0.7 [3]	0.01 [2]	0.006 [2]	1.4 [2]		0.035 [2]	0.012 [1]	0.0003 [1]	0.007 [3]	0.021 [2]	5.6 [1]	0.14 [2]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																				
P-56	P56-ROX-080612	8/6/2012	40.82 - 65.82	43.60	NE	0.00058	0.000087 J		0.00013	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	0.00051 J	<0.01	<0.0014 U	<0.01
	P56-ROX-103112	10/31/2012		44.80	NE	0.0011	<0.0001	<0.01 UJ	0.00012	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	0.00066 J	<0.01	<0.0051	<0.01 UJ
	P56-ROX-011713	1/17/2013		45.65	NE	0.00039	0.000083 J	<0.01 UJ	0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	0.0044	<0.005	<0.01	<0.005	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01
	P56-ROX-041213	4/12/2013		46.12	NE	0.00053	0.000088 J	<0.011	0.0001 J	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011	<0.011	<0.0055	<0.0022	<0.0055	<0.011	<0.0055	<0.00011	<0.00011	<0.0022	<0.011	<0.0055	<0.011
	P56-ROX-071513	7/15/2013		43.25	NE	0.00065	0.00013	<0.011	0.00014	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011	<0.011	<0.0055 UJ	<0.0022	<0.0055	<0.011	<0.0055 UJ	<0.00011	<0.00011	0.00075 J	<0.011	<0.0055	0.0086 J
	P56-ROX-101013	10/10/2013		44.48	NE	0.0006	0.000092 J	<0.011	0.00011	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0055	<0.0022	<0.0055	<0.011	<0.0055	<0.00011	<0.00011	0.00059 J	<0.011	<0.0055	0.0042 J
	P56-ROX-012214	1/22/2014		46.35	NE	0.00055	<0.0001	<0.01	0.00013	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	0.00047 J	<0.01	<0.0052	<0.01
	P56-ROX-041414	4/14/2014		47.32	NE	0.00051	0.000081 J	<0.012	<0.00012	<0.000059	<0.00012	<0.000059	<0.00012	<0.00012	<0.012	<0.012	<0.0059	<0.0024	<0.0059	<0.012	<0.0059	<0.00012	<0.00012	0.00067 J	<0.012	<0.0059	<0.012
	P56-ROX-070814	7/8/2014		45.97	NE	0.00035	0.000081 J	<0.011 UJ	0.0001 J	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	0.00049 J	<0.011	<0.0056	<0.011
	P56-ROX-101314	10/13/2014		45.05	NE	0.00057	0.00011	<0.011	0.00012	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	0.001 J	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	0.00055 J	<0.011	<0.0054	<0.011
	P56-ROX-011915	1/19/2015		46.58	NE	0.00068	0.000079 J	<0.011	0.000097 J	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	P56-ROX-041515	4/15/2015	40.82 - 65.82	48.05	NE	0.00061	0.0001 J	<0.011	0.00013	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	0.00038 J	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	0.00055 J	<0.011	<0.0054	0.0026 J
P-57	P57-ROX-080612	8/6/2012	40.46 - 65.46	43.53	NE	0.00056	0.0001		0.000073 J	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.005	<0.0001	<0.0001	0.00079 J	<0.01	<0.00096 U	0.0029 J
	P57-ROX-080612-DUP	8/6/2012		43.53	NE	0.00051	0.0001		0.000064 J	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.005	<0.0001	<0.0001	0.00073 J	<0.01	<0.001 U	0.0029 J
	P57-ROX-110512	11/5/2012		44.98	NE	0.00053	<0.0001	<0.01	0.000061 J	<0.00005	<0.0001	<0.00005	0.00005 J	<0.0001	<0.01 UJ	<0.01	<0.005	0.00052 J	<0.005	<0.01	<0.005	<0.0001	0.000049 J	0.0006 J	<0.01	<0.005	<0.01 UJ
	P57-ROX-012913	1/29/2013		45.92	NE	0.00061	0.00013	<0.012 UJ	0.000076 J	<0.000059	<0.00012	<0.000059	<0.00012	<0.00012	<0.012	<0.012	<0.0059	<0.0024	<0.0059	<0.012	<0.0059	<0.00012	<0.00012	<0.0024	<0.012	<0.0059	0.0023 J J
	P57-ROX-041113	4/11/2013		46.29	NE	0.00063	0.00012	<0.01	0.000073 J	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01
	P57-ROX-071613	7/16/2013		43.38	NE	0.00047	0.0001 J	<0.011	0.000077 J	0.00012	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056 UJ	<0.0022	<0.0056	<0.011	<0.0056 UJ	<0.00011	<0.00011	0.00088 J	<0.011	<0.0056	0.002 J
	P57-ROX-101413	10/14/2013		44.38	NE	0.00045	0.000071 J	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	0.0012 J	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	0.00082 J	<0.011	<0.0054	0.0029 J
	P57-ROX-020314	2/3/2014		46.57	NE	0.00041	0.000075 J	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	0.00067 J	<0.011	<0.0053	<0.011
	P57-ROX-041514	4/15/2014		46.70	NE	0.00036	0.000074 J	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	0.0007 J	<0.011	<0.0056	<0.011 UJ
	P57-ROX-070814	7/8/2014		45.95	NE	0.00029	0.000069 J	<0.011 UJ	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	0.0007 J	<0.011	<0.0053	<0.011
	P57-ROX-070814-DUP	7/8/2014		45.95	NE	0.00029	0.000075 J	<0.011 UJ	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	0.00071 J	<0.011	<0.0054	<0.011
	P57-ROX-101414-DUP	10/14/2014		45.00	NE	0.0003	<0.00012	<0.012	<0.00012	<0.000058	<0.00012	<0.000058	<0.00012	<0.00012	<0.012	<0.012	<0.0058	<0.0023	<0.0058	<0.012	<0.0058	<0.00012	<0.00012	<0.0023	<0.012	<0.0058	<0.012
	P57-ROX-101414	10/14/2014		45.00	NE	0.00036	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	P57-ROX-012315	1/23/2015	44.19 - 54.19	47.52	NE	0.00059	0.00014	<0.011	0.000073 J	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	0.0013 J	<0.011	<0.0053	<0.011
	P57-ROX-042015	4/20/2015	44.19 - 54.19	48.73	NE	0.00054	0.00012	<0.01	0.00009 J	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	0.0011 J	<0.01	<0.0052	<0.01
P-58	P58-ROX-080612	8/6/2012	40.21 - 65.21	41.63	NE	0.00086	0.00029		0.000094 J	0.00024	0.00011	0.000064	0.000043 J	<0.0001	<0.01	<0.01	<0.005	0.00043 J	<0.005	<0.01	<0.005	0.0001	<0.0001	0.0022	<0.01	<0.005	<0.01
	P58-ROX-080612-DUP	8/6/2012		41.63	NE	0.00098	0.0003		0.00011	0.00021	0.000098 J	0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	0.00042 J	<0.005	<0.01	<0.005	0.000099 J	<0.0001	0.0025	<0.01	<0.005	<0.01
	P58-ROX-110612	11/6/2012		43.09	NE																					
	P58-ROX-121012	12/10/2012		43.09	NE	0.00093	0.00024	<0.011	0.00083	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	0.0103	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	0.002 J	<0.011	<0.0054	<0.011
	P58-ROX-012213	1/22/2013		44.21	NE	0.0011	0.0006	<0.011 UJ	<0.00011	0.00038	0.00022	0.00012	0.00012	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	0.00039	0.000068 J	0.0038	<0.011	<0.0054	<0.011
	P58-ROX-041113	4/11/2013		44.40	NE	0.0015	0.0005	<0.011	<0.00011	0.0003	0.00019	0.000095	0.000074 J	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	0.00032	<0.00011	0.0044	<0.011	<0.0054	<0.011
	P58-ROX-071613	7/16/2013		41.49	NE	0.00076	0.00027	<0.011	0.000096 J	0.00018	0.000073 J	0.000045 J	<0.00011	<0.00011	<0.011	<0.011	<0.0055 UJ	<0.0022	<0.0055	<0.011	<0.0055 UJ	0.00012	<0.00011	0.0025	<0.011	<0.0055	<0.011
	P58-ROX-101413	10/14/2013		42.19	NE	0.00084	<0.00011	<0.011	<0.00011	<0.000054	0.000067 J	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	0.0099	<0.0054	<0.011	<0.0054	0.000099 J	<0.00011	0.0024	<0.011	<0.0054	0.0016 J
	P58-ROX-020314	2/3/2014		44.66	NE	0.00061	0.00018	<0.01	<0.0001	0.000035 J	0.000047 J	<0.000052	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	0.000079 J	<0.0001	0.0016 J	<0.01	<0.0052	<0.01
	P58-ROX-041514	4/15/2014		45.66	NE	0.0011	0.00072	0.0028 J	0.00071	0.00082	0.00063	0.00072	0.00071	0.00071	<0.011 UJ	0.0051 J	0.0015 J	<0.00099 U	0.00091 J	0.0044 J	0.0043 J	0.00073	0.00075	0.0023	<0.011 UJ	0.00077 J	<0.011 UJ
	P58-ROX-071814	7/18/2014		43.80	NE	0.00067	0.00021	<0.011	<0.00011	0.000083	0.000086 J	0.000045 J	0.000035 J	<0.00011	<0.011 UJ	<0.011	<0.0055	<0.0022	<0.0055	<0.011	<0.0055	0.00015	<0.00011	0.0018 J	<0.011	<0.0055	<0.011
	P58-ROX-101514	10/15/2014		43.14	NE	0.00058	0.00023	<0.011	<0.00011	0.00013	0.00011	0.000074	0.000065 J	<0.00011	<0.011	<0.011	0.014	<0.00042 U	<0.0054	<0.011	<0.0054	0.00018	<0.00011	0.0022	<0.011	<0.0054	<0.011
	P58-ROX-012315	1/23/2015		45.32	NE	0.0006	0.00018	<0.011	0.000053 J	0.000026 J	0.00002 J	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	0.000032 J	<0.00011	0.0019 J	<0.011	<0.0053	<0.011
	P58-ROX-042015	4/20/2015	40.21 - 65.21	46.67	NE	0.00064	0.00017	<0.01	0.000077 J	0.000052	0.000063 J	0.000059	0.000028 J	0.000016 J	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	0.000095 J	<0.0001	0.002 J	<0.01	<0.0052	<0.01

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						SVOCs																		
						Acenaphthene	Acenaphthylene	Aniline	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl alcohol	bis(2-Chloroethyl)ether	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	2-Chlorophenol	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)anthracene	Dibenzofuran	2,4-Dichlorophenol	Diethyl phthalate	2,4-Dimethylphenol
					Screening Values (mg/L)	0.42 [1]	0.21 [3]	0.023 [3]	2.1 [1]	0.00013 [1]	0.0002 [1]	0.00018 [1]	0.21 [3]	0.00017 [1]	28 [1]	0.7 [3]	0.01 [2]	0.006 [2]	1.4 [2]		0.035 [2]	0.012 [1]	0.0003 [1]	0.007 [3]	0.021 [2]	5.6 [1]	0.14 [2]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																				
P-59	P59-ROX-080212	8/2/2012	47.91 - 72.91	44.07	NE	0.00042	0.0001 J	<0.011 UJ	0.00014	0.00021	0.000036 J	0.000047 J	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	0.00036 J	<0.011	<0.0053	0.0088 J
	P59-ROX-110212	11/2/2012		45.98	NE	0.00043	<0.00011	<0.011	0.000086 J	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	0.00031 J	<0.011	<0.0053	0.0102 J J
	P59-ROX-110212-DUP	11/2/2012		45.98	NE	0.00042	<0.0001	<0.01	0.000084 J	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	0.00029 J	<0.01	<0.0052	0.0092 J J
	P59-ROX-013013	1/30/2013		46.60	NE	0.00047	<0.0001	<0.01 UJ	0.00012	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	0.0041	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	0.0581
	P59-ROX-041213	4/12/2013		46.95	NE	0.00057	0.00013	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	0.0831 J	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	0.0919
	P59-ROX-041213-DUP	4/12/2013		46.95	NE	0.00058	0.00012	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	0.0518 J	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	0.0914
	P59-ROX-071613	7/16/2013		44.13	NE	0.00035	0.000071 J	<0.011	0.000092 J	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054 UJ	<0.0022	<0.0054	<0.011	<0.0054 UJ	<0.00011	<0.00011	0.00041 J	<0.011	<0.0054	0.0583
	P59-ROX-101013	10/10/2013		45.50	NE	0.00055	0.000084 J	<0.011	0.00021	0.000068	<0.00011	0.000039 J	<0.00011	<0.00011	<0.011 UJ	0.0009 J	<0.0054	0.00069 J	<0.0054	<0.011	<0.0054	0.000088 J	<0.00011	<0.0022	<0.011	<0.0054	0.078
	P59-ROX-020314	2/3/2014		47.35	NE	0.00046	<0.0001	<0.01	0.00018	0.000035 J	<0.0001	<0.000052	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	0.000046 J	<0.0001	<0.0021	<0.01	<0.0052	0.147 J
	P59-ROX-041514	4/15/2014		48.60	NE	0.0013	<0.00011	<0.011	0.00018	0.00006	0.000042 J	0.000044 J	0.000035 J	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	0.0001 J	<0.00011	<0.0021	<0.011	<0.0053	<0.011 UJ
	P59-ROX-070814	7/8/2014		47.69	NE	0.0015	0.000091 J	<0.011 UJ	0.00012	0.000029 J	<0.00011	<0.000057	<0.00011	<0.00011	<0.011	<0.011	<0.0057	<0.0023	<0.0057	<0.011	<0.0057	0.000027 J	<0.00011	<0.0023	<0.011	<0.0057	0.17
	P59-ROX-101414	10/14/2014		46.18	NE	0.00045 J	<0.00054	<0.011	<0.00054	<0.00027	<0.00054	<0.00027	<0.00054	<0.00054	<0.011	<0.011	0.0035 J	<0.0022	<0.0054	<0.011	<0.0054	<0.00054	<0.00054	<0.0022	<0.011	<0.0054	0.0492
	P59-ROX-011915	1/19/2015		47.42	NE	0.00075	0.00013	<0.011	0.00021	0.000038 J	0.000021 J	<0.000054	0.00002 J	<0.00011	<0.011	<0.011	<0.0054	0.00042 J	<0.0054	<0.011	<0.0054	0.000047 J	<0.00011	<0.0022	<0.011	<0.0054	0.153
	P59-ROX-041615	4/16/2015	47.91 - 72.91	48.83	NE	0.00031	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	0.165
P-66	P66-ROX-080312	8/3/2012	34.72 - 59.72	30.51	NE	0.00073	0.00025	<0.011 UJ	<0.00011	0.00018	0.000066 J	0.00008	0.000066 J	<0.00011	<0.011	<0.011	<0.0053	0.00075 J	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	P66-ROX-103112	10/31/2012		34.75	NE	0.00078	0.00022	<0.01 UJ	0.0006	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.005	<0.002	<0.005	<0.01	<0.005	<0.0001	<0.0001	0.0019 J	<0.01	<0.005	<0.01 UJ
	P66-ROX-011813	1/18/2013		35.70	NE	0.00074	0.00034	<0.011 UJ	<0.000055 U	<0.000053	<0.00011	<0.000028 U	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	0.0018 J	<0.011	<0.0053	<0.011
	P66-ROX-041113	4/11/2013		36.03	NE	0.0011	0.00028	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	0.0025	<0.011	<0.0053	<0.011
	P66-ROX-071213	7/12/2013		33.20	NE	0.00087	<0.00011	<0.011	<0.0002 U	0.00018 B	<0.00015 U	0.00017 B	<0.00019 U	0.00015	<0.011 UJ	<0.011	<0.0056	0.0124	<0.0056	<0.011	<0.0056	0.00017	0.00017	0.0016 J	<0.011	<0.0056	<0.011
	P66-ROX-101013	10/10/2013		33.66	NE	0.00066	0.0002	<0.011	<0.00011	0.000028 J	<0.00011	<0.000056	0.000036 J	<0.00011	<0.011 UJ	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	0.0016 J	<0.011	<0.0056	<0.011
	P66-ROX-110713	11/7/2013		33.66	NE																					
	P66-ROX-012914	1/29/2014		36.39	NE	0.00099	0.00032	<0.011	<0.00011	0.000039 J	0.000044 J	0.000048 J	0.000052 J	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	0.000047 J	0.000035 J	0.0019 J	<0.011	<0.0053	<0.011
	P66-ROX-041114	4/11/2014		37.10	NE	0.00058	0.00017	<0.012	<0.00012	<0.000058	<0.00012	<0.000058	<0.00012	<0.00012	<0.012	<0.012	<0.0058	<0.00068 U	<0.0058	<0.012	<0.0058	<0.00012	<0.00012	<0.0023	<0.012	<0.0058	<0.012
	P66-ROX-070714	7/7/2014		35.60	NE	0.00033	0.00016	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	P66-ROX-101414	10/14/2014		34.48	NE	0.00045	0.00018	<0.011	<0.00011	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011	<0.011	<0.0055	<0.0022	<0.0055	<0.011	<0.0055	<0.00011	<0.00011	0.0012 J	<0.011	<0.0055	<0.011
	P66-ROX-011615	1/16/2015		36.62	NE	0.00067	0.00026	<0.011	0.000065 J J	0.00003 J J	<0.00011 UJ	<0.000053 UJ	<0.00011	<0.00011 UJ	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	0.000029 J J	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	P66-ROX-011615-DUP	1/16/2015		36.62	NE	0.00068	0.00027	<0.011	0.00031 J	0.00043 J	0.0003 J	0.00032 J	0.00015	0.00023 J	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	0.00032 J	0.000062 J	<0.0022	<0.011	<0.0054	<0.011
	P66-ROX-041415	4/14/2015	34.72 - 59.72	38.27	NE	0.0006	0.00022	<0.011	<0.00011	<0.000054	0.000019 J	0.000055	0.000022 J	0.000021 J	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	0.000024 J	<0.00011	0.0016 J	<0.011	<0.0054	<0.011
	P66-ROX-041415-DUP	4/14/2015		38.27	NE	0.00066	0.00021	<0.011	0.000044 J	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	0.0016 J	<0.011	<0.0053	<0.011
P-74	P74-ROX-080612	8/6/2012	44.43 - 69.43	40.71	NE	0.00016	0.000056 J		0.000041 J	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.005	<0.0001	<0.0001	<0.002	<0.01	<0.0012 U	0.0039 J
	P74-ROX-110112	11/1/2012		41.72	NE	0.00023	<0.0001	<0.01 UJ	0.000044 J	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0052	0.00044 J	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	0.00031 J	0.001 J	<0.0052	0.008 J J
	P74-ROX-011713	1/17/2013		42.65	NE	0.00019	0.0001	<0.01 UJ	0.000063 J	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	0.0028 J	<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.0051	0.0021 J
	P74-ROX-041113	4/11/2013		42.83	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	P74-ROX-071513	7/15/2013		40.11	NE	<0.000063 U	<0.00011	<0.011	0.000032 J	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	0.0013 J	<0.0054	<0.011
	P74-ROX-101413	10/14/2013		41.72	NE	0.0002	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	0.00097 J	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	0.00033 J	0.0012 J	<0.0054	0.0019 J
	P74-ROX-012414	1/24/2014		43.35	NE	0.00023	<0.0001	<0.01	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	0.00063 J	0.00097 J	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01
	P74-ROX-041514	4/15/2014		44.74	NE	<0.00012	<0.00012	<0.012	<0.00012	<0.000059	<0.00012	<0.000059	<0.00012	<0.00012	<0.012	<0.012	<0.0059	<0.0024	<0.0059	<0.012	<0.0059	<0.00012	<0.00012	<0.0024	<0.012	<0.0059	<0.012 UJ
	P74-ROX-070814	7/8/2014		43.02	NE	<0.00011	<0.00011	<0.011 UJ	<0.00011	<0.000057	<0.00011	<0.000057	<0.00011	<0.00011	<0.011	<0.011	<0.0057	<0.0023	<0.0057	<0.011	<0.0057	<0.00011	<0.00011	<0.0023	<0.011	<0.0057	<0.011
	P74-ROX-101414	10/14/2014		41.48	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	0.00096 J	<0.01	<0.005	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01
	P74-ROX-011915	1/19/2015		43.47	NE	0.00018	0.000061 J	<0.011	0.000046 J	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	0.02
	P74-ROX-041515	4/15/2015	44.43 - 69.43	44.61	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						SVOCs																		
						Acenaphthene	Acenaphthylene	Aniline	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl alcohol	bis(2-Chloroethyl)ether	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	2-Chlorophenol	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)anthracene	Dibenzofuran	2,4-Dichlorophenol	Diethyl phthalate	2,4-Dimethylphenol
					Screening Values (mg/L)	0.42 [1]	0.21 [3]	0.023 [3]	2.1 [1]	0.00013 [1]	0.0002 [1]	0.00018 [1]	0.21 [3]	0.00017 [1]	28 [1]	0.7 [3]	0.01 [2]	0.006 [2]	1.4 [2]		0.035 [2]	0.012 [1]	0.0003 [1]	0.007 [3]	0.021 [2]	5.6 [1]	0.14 [2]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																				
P-93A	P93A-ROX-080912	8/9/2012	48.17 - 63.17	43.66	NE	0.00015	<0.00011	<0.011	0.000048 J	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	0.0032 J	<0.011	<0.0054	0.0153	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	P93A-ROX-110712	11/7/2012		45.00	NE	<0.00022 U	<0.0001	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	0.0026	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	0.00027 J	<0.01	<0.0052	<0.01
	P93A-ROX-110712-DUP	11/7/2012		45.00	NE	0.00029 B	<0.0001	<0.01	0.000061 J	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	0.0023	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	P93A-ROX-012313	1/23/2013		45.89	NE	0.00016	<0.0001	<0.01 UJ	0.000028 J	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	0.0099	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052 UJ	<0.01
	P93A-ROX-012313-DUP	1/23/2013		45.89	NE	0.00014	<0.0001	<0.01 UJ	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	0.011	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052 UJ	<0.01
	P93A-ROX-041113	4/11/2013		46.29	NE	0.00023	<0.0001	<0.01	0.000074 J	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.005	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01
	P93A-ROX-041113-DUP	4/11/2013		46.29	NE	0.00021	<0.0001	<0.01	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.005	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01
	P93A-ROX-071813	7/18/2013		43.25	NE	<0.00011	0.000032 J	<0.011	0.00003 J	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	0.00024 J	<0.011	<0.0056	<0.011
	P93A-ROX-101113	10/11/2013		44.18	NE	0.00017	<0.0001	<0.01	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.005	<0.002	<0.005	<0.01	<0.005	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01
	P93A-ROX-012914	1/29/2014		46.53	NE	0.00022	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	P93A-ROX-041714	4/17/2014		47.41	NE	0.00013	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	P93A-ROX-071814	7/18/2014		45.70	NE	0.00017	<0.00011	<0.011	<0.00011	<0.000057	<0.00011	<0.000057	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0057	0.0041	<0.0057	<0.011	<0.0057	<0.00011	<0.00011	<0.0023	<0.011	<0.00037 U	<0.011
	P93A-ROX-071814-DUP	7/18/2014		45.70	NE	0.00016	<0.00011	<0.011	<0.00011	<0.000057	<0.00011	<0.000057	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0057	<0.0023	<0.0057	<0.011	<0.0057	<0.00011	<0.00011	<0.0023	<0.011	<0.0057	<0.011
	P93A-ROX-101514	10/15/2014		45.06	NE	0.0002	<0.0001	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0004 U	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	0.0003 J	<0.01	<0.0052	<0.01
	P93A-ROX-101514-DUP	10/15/2014		45.06	NE	0.00022 J	<0.00011 UJ	<0.011 UJ	<0.00011 UJ	<0.000054 UJ	<0.00011 UJ	<0.000054 UJ	<0.00011 UJ	<0.00011 UJ	<0.011 UJ	<0.011 UJ	0.0044 J J	<0.0041 UJ	<0.0054 UJ	<0.011 UJ	<0.0054 UJ	<0.00011 UJ	<0.00011 UJ	0.00033 J J	<0.011 UJ	<0.0054 UJ	<0.011 UJ
	P93A-ROX-012715	1/27/2015	43.07 - 53.07	46.05	NE	<0.001	<0.001	<0.005	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0002	<0.0002	<0.005	<0.005	<0.005	<0.005
	P93A-ROX-041715	4/17/2015	43.07 - 53.07	47.02	NE	0.00011	<0.00011	<0.011	0.000031 J	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	0.00046 J	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	0.00029 J	<0.011	<0.0053	<0.011
P-93B	P93B-ROX-080912	8/9/2012	74.60 - 76.60	43.69	NE	<0.00011	0.000087 J	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	0.0036	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.00051 U	<0.011
	P93B-ROX-110712	11/7/2012		45.05	NE	<0.0001	0.000073 JB	<0.01	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	0.0017 J	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01
	P93B-ROX-110712-DUP	11/7/2012		45.05	NE	<0.000047 U	0.000058 J	<0.01	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	0.00057 J	<0.005	<0.01	<0.005	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01
	P93B-ROX-012313	1/23/2013		45.89	NE	0.00014	0.000072 J	<0.011 UJ	0.00013	0.00022	0.00011	0.00013	0.00012	0.00012	<0.011	<0.011	<0.0053	0.0055	0.0032 J	0.0013 J	<0.0053	0.00012	0.00012	<0.0021	<0.011	<0.0053 UJ	0.0021 J
	P93B-ROX-041113	4/11/2013		46.32	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01
	P93B-ROX-071813	7/18/2013		43.30	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	P93B-ROX-101613	10/16/2013		44.43	NE	<0.0001	0.000065 J	<0.01	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.005	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01
	P93B-ROX-101613-DUP	10/16/2013		44.43	NE	<0.0001	0.000091 J	<0.01	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01
	P93B-ROX-012814	1/28/2014		46.58	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011	<0.011	<0.0055	0.00072 J	<0.0055	<0.011	<0.0055	<0.00011	<0.00011	<0.0022	<0.011	<0.0055	<0.011
	P93B-ROX-012814-DUP	1/28/2014		46.58	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	0.0012 J	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01
	P93B-ROX-041714	4/17/2014		47.46	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0051	0.0015 J	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01
	P93B-ROX-041714-DUP	4/17/2014		47.46	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0053	0.00045 J	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	P93B-ROX-071714	7/17/2014		45.75	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	P93B-ROX-101514	10/15/2014		45.15	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	P93B-ROX-012315	1/23/2015		47.24	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	0.00063 J	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	P93B-ROX-012315-DUP	1/23/2015		47.24	NE	0.000019 J	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	P93B-ROX-021915	2/19/2015		47.24	NE																					
	P93B-ROX-041615	4/16/2015	74.60 - 76.60	48.42	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	0.00099 J
	P93B-ROX-041615-DUP	4/16/2015		48.42	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	0.00084 J

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						SVOCs																				
						Acenaphthene	Acenaphthylene	Aniline	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl alcohol	bis(2-Chloroethyl)ether	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	2-Chlorophenol	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)anthracene	Dibenzofuran	2,4-Dichlorophenol	Diethyl phthalate	2,4-Dimethylphenol
					Screening Values (mg/L)	0.42 [1]	0.21 [3]	0.023 [3]	2.1 [1]	0.00013 [1]	0.0002 [1]	0.00018 [1]	0.21 [3]	0.00017 [1]	28 [1]	0.7 [3]	0.01 [2]	0.006 [2]	1.4 [2]		0.035 [2]	0.012 [1]	0.0003 [1]	0.007 [3]	0.021 [2]	5.6 [1]	0.14 [2]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																				
P-93C	P93C-ROX-080912	8/9/2012	94.26 - 96.26	43.57	NE	0.000089 J	0.000022 J	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	0.0043	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.00046 U	<0.01
	P93C-ROX-110812	11/8/2012		45.12	NE	<0.0001	<0.0001	<0.01 UJ	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	0.00081 J	<0.005	<0.01	<0.005	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01
	P93C-ROX-012313	1/23/2013		45.78	NE	<0.00011	<0.00011	<0.011 UJ	<0.00011	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011	<0.011	<0.0055	0.0049	<0.0055	<0.011	<0.0055	<0.00011	<0.00011	<0.0022	<0.011	<0.0055 UJ	<0.011
	P93C-ROX-041213	4/12/2013		46.21	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.005	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01
	P93C-ROX-071813	7/18/2013		43.31	NE	<0.000045 U	<0.00011	<0.011	0.000021 J	<0.000056	0.00015	<0.000056	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	P93C-ROX-080813	8/8/2013		43.31	NE																					
	P93C-ROX-101613	10/16/2013		44.31	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01
	P93C-ROX-012414	1/24/2014		46.44	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01
	P93C-ROX-041714	4/17/2014		47.34	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	P93C-ROX-071714	7/17/2014		45.61	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	P93C-ROX-101514	10/15/2014		44.99	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	P93C-ROX-011915	1/19/2015	92.47 - 97.47	46.77	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	P93C-ROX-021915	2/19/2015		46.77	NE																					
	P93C-ROX-041615	4/16/2015	92.47 - 97.47	48.22	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
P-93D	P93D-ROX-080812	8/8/2012	125.75 - 127.75	43.71	NE	0.00017	0.000051 J	<0.01 UJ	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.0021 U	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	P93D-ROX-110812	11/8/2012		NM	NE	<0.00011	<0.00011	<0.011 UJ	<0.00011	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011	<0.011	<0.0055	<0.0022	<0.0055	<0.011	<0.0055	<0.00011	<0.00011	<0.0022	<0.011	<0.0055	<0.011
	P93D-ROX-012213	1/22/2013		44.21	NE	<0.00011	<0.00011	<0.011 UJ	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	P93D-ROX-041113	4/11/2013		46.37	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	P93D-ROX-071213	7/12/2013		43.51	NE	<0.000026 U	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0056	0.00057 J	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	P93D-ROX-101113	10/11/2013		44.24	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.005	<0.002	<0.005	<0.01 UJ	<0.005 UJ	<0.0001	<0.0001	<0.002	<0.01 UJ	<0.005	<0.01 UJ
	P93D-ROX-013114	1/31/2014		46.62	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	0.0045	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	P93D-ROX-041414	4/14/2014		47.54	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0005 U	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	P93D-ROX-071714	7/17/2014		45.78	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	P93D-ROX-101514	10/15/2014		45.14	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	P93D-ROX-110414	11/4/2014		45.14	NE																					
	P93D-ROX-012315	1/23/2015		42.28	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	P93D-ROX-021915	2/19/2015		42.28	NE																					
	P93D-ROX-042015	4/20/2015	125.75 - 127.75	48.52	NE	<0.0001	<0.0001	<0.01	0.000017 J	<0.000052	<0.0001	0.000061	0.00002 J	0.000023 J	<0.01	<0.01	<0.0052	0.00035 JB U	<0.0052	<0.01	<0.0052	0.000021 J	<0.0001	<0.0021	<0.01	<0.0052	<0.01
P-114	P114-ROX-080912	8/9/2012	32.67 - 52.67	29.13	NE	<0.0001	0.000029 J	<0.01	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	0.0039	<0.005	<0.01	<0.005	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01
	P114-ROX-110912	11/9/2012		30.90	NE	<0.0001	<0.0001	<0.01 UJ	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	P114-ROX-012313	1/23/2013		30.22	NE	<0.00011	<0.00011	<0.011 UJ	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	0.0059	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053 UJ	<0.011
	P114-ROX-041513	4/15/2013		31.80	NE	<0.0001	<0.0001	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001 UJ	<0.0001 UJ	<0.01	<0.01	<0.0052	0.0023	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	P114-ROX-071813	7/18/2013		27.22	NE	0.00013 B	<0.00011	<0.011	0.00011	0.000045 J	0.000034 J	0.000064	0.000067 J	<0.00011	<0.011 UJ	<0.011	<0.0055	<0.0022	<0.0055	<0.011	<0.0055	<0.00011	0.000073 J	<0.0022	<0.011	<0.0055	<0.011
	P114-ROX-071813-DUP	7/18/2013		27.22	NE	<0.00011	<0.00011	<0.011	0.00013	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	P114-ROX-101713	10/17/2013		29.43	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	P114-ROX-012814	1/28/2014		32.11	NE	<0.00011	<0.00011	<0.011	0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	0.00066 J	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	P114-ROX-042114	4/21/2014		32.22	NE	0.00011	<0.0001	<0.01	0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01
	P114-ROX-071814	7/18/2014		30.87	NE	0.000082 J	<0.0001	<0.01	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01
	P114-ROX-101714	10/17/2014		29.43	NE	0.000078 J	<0.00011	<0.011	<0.00011	<0.000057	<0.00011	<0.000057	<0.00011	<0.00011	<0.011	<0.011	<0.0057	<0.0023	<0.0057	<0.011	<0.0057	<0.00011	<0.00011	<0.0023	<0.011	<0.0057	<0.011
	P114-ROX-012115	1/21/2015		31.53	NE	0.00019	<0.00011	<0.011	0.000096 J	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	P114-ROX-041715	4/17/2015	32.67 - 52.67	NM	NE	0.00021	0.000044 J	<0.011	0.000054 J	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	0.00038 J	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						SVOCs																			
						Acenaphthene	Acenaphthylene	Aniline	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl alcohol	bis(2-Chloroethyl)ether	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	2-Chlorophenol	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)anthracene	Dibenzofuran	2,4-Dichlorophenol	Diethyl phthalate	2,4-Dimethylphenol
					Screening Values (mg/L)	0.42 [1]	0.21 [3]	0.023 [3]	2.1 [1]	0.00013 [1]	0.0002 [1]	0.00018 [1]	0.21 [3]	0.00017 [1]	28 [1]	0.7 [3]	0.01 [2]	0.006 [2]	1.4 [2]		0.035 [2]	0.012 [1]	0.0003 [1]	0.007 [3]	0.021 [2]	5.6 [1]	0.14 [2]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																					
ROST-3-MW (ROST-3-PZ)	ROST3PZ-ROX-080712	8/7/2012	40.00 - 50.00	39.00	NE	<0.00011	<0.00011	<0.011 UJ	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	0.0016 J	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	0.0033 J	<0.011
	ROST3PZ-ROX-110112	11/1/2012		40.82	NE	<0.00011	<0.00011	<0.011 UJ	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011 UJ
	ROST3MW-ROX-012313	1/23/2013	37.81 - 47.81	41.50	NE	0.00025	0.000059 J	<0.01 UJ	0.000074 J	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.005	<0.0001	<0.0001	<0.002	<0.01	<0.005 UJ	<0.01
	ROST3MW-ROX-040513	4/5/2013		42.24	NE	0.00016	<0.00011 UJ	<0.011 UJ	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	ROST3MW-ROX-071113	7/11/2013		39.50	NE	0.00029	<0.00011	<0.011	0.000091 J	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0054	0.00061 J	<0.0054	<0.011 UJ	<0.0054 UJ	<0.00011	<0.00011	0.00025 J	<0.011 UJ	<0.0054	0.0016 J J
	ROST3-MW-ROX-100913	10/9/2013		40.16	NE	0.0001 J	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0054	<0.0022	<0.0054	<0.011 UJ	<0.0054 UJ	<0.00011	<0.00011	<0.0022	<0.011 UJ	<0.0054	<0.011 UJ
	ROST3MW-ROX-011714	1/17/2014		42.20	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0053	<0.0021	<0.0053	<0.011 UJ	<0.0053 UJ	<0.00011	<0.00011	<0.0021	<0.011 UJ	<0.0053	<0.011 UJ
	ROST3MW-ROX-041014	4/10/2014		42.80	NE	<0.00012	<0.00012	<0.012	<0.00012	<0.00006	<0.00012	<0.00006	<0.00012	<0.00012	<0.012 UJ	<0.012	<0.006	<0.0024	<0.006	<0.012	<0.006	<0.00012	<0.00012	<0.0024	<0.012	<0.006	<0.012
	ROST3MW-ROX-071414	7/14/2014		41.88	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	ROST3MW-ROX-100914	10/9/2014		41.31	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	0.00046 J	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	ROST3MW-ROX-011515	1/15/2015		41.83	NE	0.000027 J	<0.00011	<0.011	0.000019 J J	<0.000057	<0.00011	<0.000057	<0.00011	<0.00011	<0.011	<0.011	<0.0057	<0.0023	<0.0057	<0.011	<0.0057	<0.00011	<0.00011	<0.0023	<0.011	<0.0057	<0.011
	ROST3MW-ROX-041315	4/13/2015	37.81 - 47.81	43.43	NE	0.000028 J	<0.0001	<0.01	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
ROST-4-PZ(C)	ROST4PZ-C-ROX-072512	7/25/2012	34.95 - 44.95	39.10	NE	0.00039 B	<0.00011	<0.011	<0.00018 U	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	0.00042 J	<0.0053	<0.00051 U	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	0.00036 J	<0.011	0.0012 J	0.003 J
	ROST4PZC-ROX-102912	10/29/2012		40.75	NE	0.000054 J	<0.0001	<0.01 UJ	0.00005 J	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	0.0045	<0.0052	<0.01	<0.0052	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01
	ROST4PZ(C)-ROX-011113	1/11/2013		41.42	NE	<0.00011	<0.00011	<0.011 UJ	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	ROST4PZC-ROX-041013	4/10/2013		42.27	NE	0.000066 J	0.000018 J	<0.011	0.000033 J	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011	<0.011	<0.0055	<0.0022	<0.0055	<0.011	<0.0055	<0.00011	<0.00011	<0.0022	<0.011	<0.0055	<0.011
	ROST4PZC-ROX-071113	7/11/2013		40.18	NE	0.00019	0.000073 J	<0.011	0.00012	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0054	0.0032	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	ROST4PZC-ROX-100913	10/9/2013		39.91	NE	0.00012	<0.00011	<0.011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011
	ROST4PZC-ROX-011714	1/17/2014		41.92	NE	<0.00012	<0.00012	<0.012	<0.00012	<0.000059	<0.00012	<0.000059	<0.00012	<0.00012	<0.01 UJ	<0.012	<0.0059	<0.0024	<0.0059	<0.01 UJ	<0.005 UJ	<0.00012	<0.00012	<0.0024	<0.01 UJ	<0.0059	<0.01 UJ
	ROST4PZC-ROX-041014	4/10/2014		42.05	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	ROST4C-ROX-071114	7/10/2014		42.22	NE	<0.0001	<0.0001	<0.011	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.011	<0.011	<0.0053	0.0007 J	<0.0053	<0.011	<0.0053	<0.0001	<0.0001	<0.0021	<0.011	<0.0053	<0.011
	ROST4PZC-ROX-100914	10/9/2014		41.30	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	ROST4PZC-ROX-011515	1/15/2015		41.65	NE	<0.00011	<0.00011	<0.011	<0.00011	<0.000057	<0.00011	<0.000057	<0.00011	<0.00011	<0.011	<0.011	<0.0057	0.0042	<0.0057	<0.011	<0.0057	<0.00011	<0.00011	<0.0023	<0.011	<0.0057	<0.011
	ROST4PZC-ROX-041315	4/13/2015	34.95 - 44.95	43.00	NE	<0.0001	<0.0001	<0.01	0.000018 J	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.0051	0.0013 J
T-12	T12-ROX-080212	8/2/2012	46.46 - 72.46	41.92	NE	0.00044	0.000082 J	<0.011 UJ	0.0001 J	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	0.0003 J	<0.011	<0.0054	0.0153
	T12-ROX-110512	11/5/2012		43.91	NE	0.00044	<0.0001	<0.01	0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.005	0.00054 J	<0.005	<0.01	<0.005	<0.0001	<0.0001	0.00029 J	<0.01	<0.005	0.0028 J J
	T12-ROX-011813	1/18/2013		44.50	NE	0.0005	0.000093 J	<0.011 UJ	<0.00013 U	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	0.0065 J
	T12-ROX-041513	4/15/2013		44.99	NE	0.00063	0.00009 J	<0.01	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001 UJ	<0.0001 UJ	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	0.00048 J	<0.01	<0.0051	<0.01
	T12-ROX-071613	7/16/2013		42.33	NE	0.00055	0.0001 J	<0.011	0.00015	0.00013	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	0.001 J	<0.0054 UJ	<0.0044 U	<0.0054	<0.011	<0.0054 UJ	<0.00011	<0.00011	0.00042 J	<0.011	<0.0054	0.0096 J
	T12-ROX-101513	10/15/2013		43.73	NE	0.00036	<0.00011	<0.011	0.00012	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	0.000028 J	<0.00011	0.00029 J	<0.011	<0.0054	0.0047 J
	T12-ROX-012414	1/24/2014		45.26	NE	0.0005	<0.0001	<0.01	0.00014	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0001	<0.0001	<0.002	<0.01	<0.0051	0.0073 J
	T12-ROX-041514	4/15/2014		46.72	NE	0.00037	<0.00011	<0.011	0.00012	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	0.00031 J	<0.011	<0.0056	<0.011 UJ
	T12-ROX-070814	7/8/2014		45.13	NE	0.00024	<0.00011	<0.011 UJ	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.0054	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011
	T12-ROX-101714	10/17/2014		44.40	NE	0.00036	0.000072 J	<0.011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011
	T12-ROX-011915	1/19/2015		45.27	NE	0.00039	0.000064 J	<0.011	0.00013	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	0.0069 J
	T12-ROX-041515	4/15/2015	46.46 - 72.46	46.73	NE	0.00036	0.000065 J	<0.011	0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.0056	<0.00011	<0.00011	0.00033 J	<0.011	0.00036 J J	0.0044 J

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						SVOCs																				
						Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	2,6-Dinitrotoluene	Fluoranthene	Fluorene	Hexachlorobenzene	Indene	Indeno(1,2,3-cd)pyrene	Isophorone (3,5,5-trimethyl-2-cyclohexene-1-one)	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	3-Nitroaniline	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
					Screening Values (mg/L)		0.7 [1]	0.14 [2]	0.00031 [2]	0.28 [1]	0.28 [1]	0.00006 [2]		0.00043 [1]	1.4 [2]	0.49 [3]	0.028 [1]	0.35 [1]	0.35 [3]		0.014 [1]	0.0006 [3]	0.0032 [2]	0.001 [1]	0.21 [3]	0.1 [1]	0.21 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																				
MW-01	MW1-ROX-073012	7/30/2012	48.80 - 58.80	39.39	NE	<0.0053	<0.00043 U	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000025 J	<0.0053	<0.00011
	MW1-ROX-102612	10/26/2012		41.22	NE	<0.0057	<0.0057	<0.0057	<0.011	<0.00011	<0.00011	<0.0057		<0.00011	<0.0057	<0.00023	<0.00023	<0.011	<0.011	<0.011	<0.0057	<0.0057	<0.0057	<0.011	<0.000057	<0.0057	<0.00011
	MW1-ROX-121712	12/17/2012		41.22	NE																					
	MW1-ROX-011013	1/10/2013		41.89	NE	<0.0052 UJ	<0.0052	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000021 U	<0.0052	<0.0001
	MW1-ROX-040913	4/9/2013		42.55	NE	<0.0053 UJ	<0.0012 U	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	MW1-ROX-070813	7/8/2013		39.56	NE	<0.0051	<0.0051	<0.0051	<0.01	0.000033 J	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000043 U	<0.0051	<0.0001
	MW1-ROX-100313	10/3/2013		40.28	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	MW1-ROX-011414	1/14/2014		42.77	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011 UJ	<0.011 UJ	<0.011	<0.0053	<0.0053	<0.0053	<0.011 UJ	0.000031 J	<0.0053 UJ	<0.00011
	MW1-ROX-040714	4/7/2014		43.28	NE	<0.0054	<0.00029 U	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.00022	<0.011 UJ	<0.011 UJ	<0.011	<0.0054	<0.0054	<0.0054	<0.011 UJ	<0.000023 U	<0.0057 UJ	<0.00011
	MW1-ROX-070914	7/9/2014		42.09	NE	<0.0054	0.0016 JB	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	0.000085 J	0.00012 JB J	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	MW1-ROX-100614	10/6/2014		41.1	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.0021	<0.0021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053 UJ	<0.00011
	MW1-ROX-011215	1/12/2015		42.73	NE	<0.0053	<0.0053	<0.0053	<0.011	0.000017 J	0.000027 J	<0.0053		<0.00011	<0.0053	<0.00003 U	<0.000036 U	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00003 J	<0.0053	<0.00011
	MW1-ROX-040615	4/6/2015	48.80 - 58.80	44.11	NE	<0.0053	0.00044 J	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.000018 J	0.000035 J	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
MW-02	MW2-ROX-073012	7/30/2012	49.87 - 59.87	40.60	NE	<0.0053	<0.00047 U	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.0097	0.0229	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00004 J	<0.0053	0.000039 J
	MW2-ROX-102612	10/26/2012		42.35	NE	<0.0054	<0.0054	<0.0054	<0.011	0.000061 J	0.00011	<0.0054		<0.00011	<0.0054	0.0091	0.0182	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00011	<0.0054	0.000046 J
	MW2-ROX-011113	1/11/2013		42.94	NE	<0.0056 UJ	<0.0056	<0.0056	<0.011	0.00004 J	<0.00011	<0.0056		<0.00011	<0.0056	0.008	0.0162	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.000044 J	<0.0056	0.000039 J
	MW2-ROX-040913	4/9/2013		43.70	NE	<0.0054 UJ	<0.0054	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	0.012	0.0256	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	MW2-ROX-071113	7/11/2013		40.82	NE	<0.0055	<0.0055	<0.0055	<0.011	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	0.0123 J	0.0249	<0.011	<0.011	<0.011 UJ	<0.0055	<0.0055	<0.0055	<0.011	<0.000051 U	<0.0055 UJ	<0.00011
	MW2-ROX-100813	10/8/2013		41.73	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	0.009	0.0201	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	MW2-ROX-012014	1/20/2014		44.00	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.0094	0.0208	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000043 U	<0.0053	<0.00011
	MW2-ROX-041014	4/10/2014		44.66	NE	<0.006	<0.00046 U	<0.006	<0.012	<0.00012	<0.00012	<0.006		<0.00012	<0.006	0.0083	0.0193	<0.012	<0.012	<0.012	<0.006	<0.006	<0.006	<0.012	<0.00006	<0.006	<0.00012
	MW2-ROX-071414	7/14/2014		43.13	NE	<0.0054	<0.00045 U	<0.0054	<0.011	0.00012	0.00014	<0.0054		<0.00011	<0.0054	0.01	0.0215	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.00017 U	<0.0054	0.000096 J
	MW2-ROX-101014	10/10/2014		42.49	NE	<0.0051	<0.0051	<0.0051	<0.01	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	0.01	0.0214	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001
	MW2-ROX-011615	1/16/2015		44.1	NE	<0.0053	<0.00034 U	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.0108	0.0236	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000025 J	<0.0053	<0.00011
	MW2-ROX-041315	4/13/2015	49.87 - 59.87	45.56	NE	<0.0054	0.00045 JB U	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	0.0124	0.0253	<0.011	0.00066 J	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.000023 J	<0.0054	<0.00011
MW-03	MW3-ROX-072712	7/27/2012	34.67 - 44.67	26.60	NE	<0.0053	<0.00066 U	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011 UJ	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000025 J J	<0.0053	<0.00011
	MW3-ROX-102512	10/25/2012		28.39	NE	<0.0051	<0.0051	<0.0051	<0.01	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051 UJ	<0.0001
	MW3-ROX-010913	1/9/2013		29.35	NE	<0.005	0.0025 J	<0.005	<0.01	0.000047 J	0.000052 J	<0.005		<0.0001	<0.005	<0.0002	0.000081 J	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	0.000068	<0.005 UJ	0.000036 J
	MW3-ROX-040813	4/8/2013		29.74	NE	<0.0057	<0.0057	<0.0057	<0.011	<0.00011	<0.00011	<0.0057		<0.00011	<0.0057	<0.00023	<0.00023	<0.011	<0.011	<0.011	<0.0057	<0.0057	<0.0057	<0.011	<0.000057	<0.0057	<0.00011
	MW3-ROX-071113	7/11/2013		26.32	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	0.00044 J	0.00038	<0.011	<0.011	<0.011 UJ	<0.0054	<0.0054	<0.0054	<0.011	<0.000039 U	<0.0054 UJ	<0.000072 U
	MW3-ROX-100813	10/8/2013		27.38	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	0.00013 J	0.00014 J	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	MW3-ROX-011614	1/16/2014		29.91	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011 UJ	<0.011 UJ	<0.011	<0.0053	<0.0053 UJ	<0.0053	<0.011 UJ	<0.000053	<0.0053 UJ	<0.00011
	MW3-ROX-040914	4/9/2014		30.50	NE	<0.0056	<0.00056 U	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000019 U	<0.0056	<0.00011
	MW3-ROX-071114	7/10/2014		29.05	NE	<0.0054	<0.00028 U	<0.0054	<0.011	<0.0001	<0.0001	<0.0054		<0.0001	<0.0054	0.000067 J	<0.0002	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.00003 U	<0.0054	<0.0001
	MW3-ROX-100914	10/9/2014		28.18	NE	<0.0056	<0.00023 U	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.0022	<0.0022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000056	<0.0056	<0.00011
	MW3-ROX-011515	1/15/2015		29.65	NE	<0.0056	0.00028 J J	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	0.00033 J	0.0003 J	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.000018 J J	<0.0056	<0.00011
	MW3-ROX-041015	4/10/2015	34.67 - 44.67	31.16	NE	<0.0053	0.00054 J	<0.0053	<0.011	0.000024 J J	<0.0001	<0.0053		<0.0001	<0.0053	0.00013 J	0.000097 J	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000026 JB J	<0.0053	0.000018 J

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						SVOCs																				
						Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	2,6-Dinitrotoluene	Fluoranthene	Fluorene	Hexachlorobenzene	Indene	Indeno(1,2,3-cd)pyrene	Isophorone (3,5,5-trimethyl-2-cyclohexene-1-one)	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	3-Nitroaniline	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
					Screening Values (mg/L)		0.7 [1]	0.14 [2]	0.00031 [2]	0.28 [1]	0.28 [1]	0.00006 [2]		0.00043 [1]	1.4 [2]	0.49 [3]	0.028 [1]	0.35 [1]	0.35 [3]		0.014 [1]	0.0006 [3]	0.0032 [2]	0.001 [1]	0.21 [3]	0.1 [1]	0.21 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																				
MW-04	MW4-ROX-072512	7/25/2012	46.06 - 56.06	37.63	NE	<0.0051	0.00075 J	<0.0051	<0.01	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	0.00054	0.00045 B	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	0.0018 J	<0.0001
	MW4-ROX-072512-Dup	7/25/2012		37.63	NE	<0.0051	0.00057 J	<0.0051	<0.01	<0.000047 U	<0.0001	<0.0051		<0.0001	<0.0051	0.00049	0.0004 B	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000031 U	0.0023 J	<0.0001
	MW4-ROX-102912	10/29/2012		39.45	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	0.00025	0.00016 J	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
	MW4-ROX-011113	1/11/2013		40.20	NE	<0.0056 UJ	<0.0056	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.00022	0.00014 J	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000056	0.0608	<0.00011
	MW4-ROX-011113-DUP	1/11/2013		40.20	NE	<0.006 UJ	<0.006	<0.006	<0.012	<0.00012	<0.00012	<0.006		<0.00012	<0.006	<0.00024	0.000099 J	<0.012	<0.012	<0.012	<0.006	<0.006	<0.006	<0.012	<0.00006	0.0665	<0.00012
	MW4-ROX-030413	3/4/2013		40.20	NE																					
	MW4-ROX-040913	4/9/2013		40.90	NE	<0.0053 UJ	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00022	0.000082 J	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000054	0.11	<0.00011
	MW4-ROX-040913-DUP	4/9/2013		40.90	NE	<0.0053 UJ	<0.00062 U	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	0.000076 J	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	0.103	<0.00011
	MW4-ROX-071713	7/17/2013		37.61	NE	<0.0055	<0.0055	<0.0055	<0.011	<0.00011	<0.00011	<0.0055		0.000052 J	<0.0055	0.00037	0.00023	<0.011	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	<0.00003 U	0.0661	<0.00011
	MW4-ROX-101613	10/16/2013		38.80	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	0.00016 J	0.00015 J	<0.011 UJ	<0.011 UJ	<0.011	<0.0054	<0.0054	<0.0054	<0.011 UJ	<0.000054	0.0168 J	<0.00011
	MW4-ROX-013014	1/30/2014		41.09	NE	<0.0054	<0.0013 U	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	0.00027	0.00022	<0.011 UJ	<0.011 UJ	<0.011	<0.0054	<0.0054	<0.0054	<0.011 UJ	<0.000022 U	0.0164 J	<0.00011
	MW4-ROX-041614	4/16/2014		41.91	NE	<0.0056	<0.00076 U	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	0.000072 J	<0.00022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000056	<0.0056	<0.00011
	MW4-ROX-071614	7/16/2014		40.18	NE	<0.0052	<0.00043 U	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	0.00024	0.00022	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000041 U	<0.0052	<0.0001
	MW4-ROX-101614	10/16/2014		39.49	NE	<0.0059	<0.0059	<0.0059	<0.012	<0.00012	<0.00012	<0.0059		<0.00012	<0.0059	<0.0024	<0.0024	<0.012	<0.012	<0.012	<0.0059	<0.0059	<0.0059	<0.012	0.000029 J	0.0115	<0.00012
	MW4-ROX-012115	1/21/2015		41.27	NE	<0.0053	0.0011 J	<0.0053	<0.011	<0.000018 U	<0.00011	<0.0053		<0.00011	<0.0053	0.00012 JB	<0.00011 U	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000019 U	<0.0053	<0.000022 U
	MW4-ROX-042115	4/21/2015		42.58	NE	<0.0052	<0.0052	<0.0052	<0.01	0.000018 J	<0.0001	<0.0052		<0.0001	<0.0052	0.00024 J	0.00021 J	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.00002 J	<0.0052	0.000018 J
MW-05	MW5-ROX-072512	7/25/2012	33.97 - 43.97	26.18	NE	<0.0052	0.00057 J	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	0.003	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000025 U	0.0015 J	<0.0001
	MW5-ROX-102912	10/29/2012		28.16	NE	<0.0051	<0.0051	<0.0051	<0.01	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	0.0091	0.000084 J	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001
	MW5-ROX-011113	1/11/2013		28.75	NE	<0.0055 UJ	<0.0055	<0.0055	<0.011	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	0.0043	0.000084 J	<0.011	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	0.000048 J	<0.0055	<0.00011
	MW5-ROX-040913	4/9/2013		29.41	NE	<0.0054 UJ	<0.0054	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	0.004	<0.00022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	MW5-ROX-070913	7/9/2013		26.04	NE	<0.005	<0.005	<0.005	<0.01	<0.0001	<0.00099 U	<0.005		<0.0001	<0.005	0.0015	<0.0002 UJ	<0.01	<0.01	<0.01 UJ	<0.005	<0.005	<0.005	<0.01	<0.000074 U	<0.005	<0.0001
	MW5-ROX-100813	10/8/2013		26.97	NE	<0.0055	<0.0055	<0.0055	<0.011	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	0.0038	0.00009 J	<0.011	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	<0.000055	<0.0055	<0.00011
	MW5-ROX-011714	1/17/2014		29.59	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.0035	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	MW5-ROX-041014	4/10/2014		30.09	NE	<0.0056	<0.00087 U	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	0.0038	<0.00022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000056	<0.0056	<0.00011
	MW5-ROX-071414	7/14/2014		28.59	NE	<0.0053	<0.00037 U	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.00052 B	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000088 U	<0.0053	<0.00011
	MW-5-ROX-100914	10/9/2014		27.75	NE	<0.0054	<0.00023 U	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	0.00099 J	<0.0022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.00003 U	0.00072 J	<0.00011
	MW5-ROX-011515	1/15/2015		29.34	NE	<0.0053	<0.0053	<0.0053	<0.011	0.000037 J J	<0.00011	<0.0053		0.000023 J J	<0.0053	0.00071 J	<0.0021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000039 J J	<0.0053	0.000038 J J
	MW5-ROX-041315	4/13/2015	33.97 - 43.97	30.97	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.000099 JB J	0.000031 JB J	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
MW-06A	MW6A-ROX-080112	8/1/2012	34.83 - 44.83	28.36	NE	<0.005	0.00049 J	<0.005	<0.01	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW6A-ROX-102412	10/24/2012		30.06	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	MW6A-ROX-011413	1/14/2013		31.00	NE	<0.0051 UJ	<0.0051	<0.0051	<0.01	<0.0001	<0.0001	<0.0051		0.000072 J	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051 UJ	<0.0051	<0.01	<0.000051	<0.0051 UJ	<0.0001
	MW6A-ROX-040313	4/3/2013		31.62	NE	<0.0053	0.0018 J	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053 UJ	<0.0053	<0.011	0.000084	<0.0053 UJ	0.000053 J
	MW6A-ROX-070913	7/9/2013		28.25	NE	<0.0055	<0.0055	<0.0055	<0.011	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	<0.00022	<0.00022	<0.011	<0.011	<0.011 UJ	<0.0055	<0.0055	<0.0055	<0.011	<0.000055	<0.0055	<0.00011
	MW6A-ROX-070913-DUP	7/9/2013		28.25	NE	<0.0055	<0.0055	<0.0055	<0.011	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	<0.00022	<0.00022	<0.011	<0.011	<0.011 UJ	<0.0055	<0.0055	<0.0055	<0.011	<0.000055	<0.0055	<0.00011
	MW6A-ROX-100713	10/7/2013		28.87	NE	<0.0056 UJ	<0.0056	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000056	<0.0056	<0.00011
	MW6A-ROX-100713-DUP	10/7/2013		28.87	NE	<0.0054 UJ	<0.0054	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	MW6A-ROX-011614	1/16/2014		31.62	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052 UJ	<0.0052	<0.01	<0.000052	<0.0052 UJ	<0.0001
	MW6A-ROX-011614-DUP	1/16/2014		31.62	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053 UJ	<0.0053	<0.011	<0.000053	<0.0053 UJ	<0.00011
	MW6A-ROX-040814	4/8/2014		32.16	NE	<0.0056	<0.00075 U	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000054	<0.0056	<0.00011
	MW6A-ROX-040814-DUP	4/8/2014		32.16	NE	<0.0054	<0.00077 U	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000055	<0.0054	<0.00011
	MW6A-ROX-071014	7/10/2014		30.75	NE	<0.0054	<0.00026 U	<0.0054	<0.011	<0.00011	0.00013	<0.0054		<0.00011	<0.0054	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.000046 J	<0.0054	<0.00011
	MW6A-ROX-100814	10/8/2014		29.84	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.0021	<0.0021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	MW6A-ROX-011415	1/14/2015		31.54	NE	<0.0053	<0.0053	<0.0053	<0.011	0.000037 J J	0.000076 J	<0.0053		<0.00011	<0.0053	<0.0021	<0.0021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000046 J	<0.0053	0.000027 J
	MW6A-ROX-040715	4/7/2015	34.83 - 44.83	33.08	NE	<0.0051	<0.0051	<0.0051	<0.01	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	0.000019 J	0.000023 J	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						SVOCs																				
						Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	2,6-Dinitrotoluene	Fluoranthene	Fluorene	Hexachlorobenzene	Indene	Indeno(1,2,3-cd)pyrene	Isophorone (3,5,5-trimethyl-2-cyclohexene-1-one)	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	3-Nitroaniline	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
			Screening Values (mg/L)				0.7 [1]	0.14 [2]	0.00031 [2]	0.28 [1]	0.28 [1]	0.00006 [2]		0.00043 [1]	1.4 [2]	0.49 [3]	0.028 [1]	0.35 [1]	0.35 [3]		0.014 [1]	0.0006 [3]	0.0032 [2]	0.001 [1]	0.21 [3]	0.1 [1]	0.21 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																				
MW-06B	MW6B-ROX-080112	8/1/2012	64.05 - 69.05	28.39	NE	<0.0051	0.0007 J	<0.0051	<0.01	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001
	MW6B-ROX-102412	10/24/2012		30.11	NE	<0.0051	0.00079 J	<0.0051	<0.01	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001
	MW6B-ROX-011713	1/17/2013		31.11	NE	<0.005	0.0026 J	<0.005	<0.01	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW6B-ROX-040313	4/3/2013		31.68	NE	<0.0054	0.0012 J	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	0.0002 J	<0.011	<0.011	<0.011	<0.0054	<0.0054 UJ	<0.0054	<0.011	<0.000054	<0.0054 UJ	<0.00011
	MW6B-ROX-070913	7/9/2013		28.25	NE	<0.0056	<0.0056	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.00022	<0.00022	<0.011	<0.011	<0.011 UJ	<0.0056	<0.0056	<0.0056	<0.011	<0.000056	<0.0056	<0.00011
	MW6B-ROX-100713	10/7/2013		28.93	NE	<0.0054 UJ	<0.0054	<0.0054	0.0224	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	MW6B-ROX-011614	1/16/2014		31.67	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		0.000043 J	<0.0054	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0054	<0.0054 UJ	<0.0054	<0.011	<0.000054	<0.0054 UJ	<0.00011
	MW6B-ROX-040814	4/8/2014		32.21	NE	<0.0053	<0.00043 U	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000018 J	<0.0053	<0.00011
	MW6B-ROX-071014	7/10/2014		30.81	NE	<0.0056	<0.0056	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000056	<0.0056	<0.00011
	MW6B-ROX-100814	10/8/2014		29.87	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.0021	<0.0021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	MW6B-ROX-011415	1/14/2015		31.59	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.0022	0.000017 J	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	MW6B-ROX-040715	4/7/2015	64.05 - 69.05	33.10	NE	<0.0051	0.00029 J	<0.0051	<0.01	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.002	<0.002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001
	MW6B-ROX-040715-DUP	4/7/2015		33.10	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.0021	<0.0021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
MW-06C	MW6C-ROX-080112	8/1/2012	84.95 - 89.95	28.15	NE	<0.005	0.001 J	<0.005	<0.01	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW6C-ROX-102412	10/24/2012		27.85	NE	<0.0051	<0.0051	<0.0051	<0.01	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001
	MW6C-ROX-011713	1/17/2013		30.88	NE	<0.005	0.0022 J	<0.005	<0.01	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW6C-ROX-040313	4/3/2013		31.41	NE	<0.0052	0.00077 J	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	0.00016 J	<0.01	<0.01	<0.01	<0.0052	<0.0052 UJ	<0.0052	<0.01	<0.000052	<0.0052 UJ	<0.0001
	MW6C-ROX-070913	7/9/2013		28.03	NE	<0.0056	<0.0056	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.00022	<0.00022	<0.011	<0.011	<0.011 UJ	<0.0056	<0.0056	<0.0056	<0.011	<0.000056	<0.0056	<0.00011
	MW6C-ROX-100713	10/7/2013		28.72	NE	<0.0055 UJ	0.00043 J	<0.0055	<0.011	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	<0.000055	<0.0055	<0.00011
	MW6C-ROX-011614	1/16/2014		31.48	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053 UJ	<0.0053	<0.011	<0.000053	<0.0053 UJ	<0.00011
	MW6C-ROX-040814	4/8/2014		32.01	NE	<0.0059	<0.0004 U	<0.0059	<0.012	<0.00012	<0.00012	<0.0059		<0.00012	<0.0059	<0.00024	<0.00024	<0.012	<0.012	<0.012	<0.0059	<0.0059	<0.0059	<0.012	<0.000059	<0.0059	<0.00012
	MW6C-ROX-071014	7/10/2014		30.60	NE	<0.0056	<0.00032 U	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		0.000035 J	<0.0056	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000056	<0.0056	<0.00011
	MW6C-ROX-100814	10/8/2014		29.67	NE	<0.0056	<0.0056	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.0022	<0.0022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000056	<0.0056	<0.00011
	MW6C-ROX-011415	1/14/2015		31.41	NE	<0.0056	<0.0056	<0.0056	<0.011	0.000022 J J	<0.00011	<0.0056		<0.00011	<0.0056	<0.0022	0.000028 J	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.000025 J	<0.0056	0.000021 J
	MW6C-ROX-040915	4/9/2015	84.95 - 89.95	32.80	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.0022	0.000025 JB J	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
MW-06D	MW6D-ROX-080212	8/2/2012	104.72 - 109.72	30.56	NE	<0.0051	<0.0051	<0.0051	<0.01	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001
	MW6D-ROX-102412	10/24/2012		29.71	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
	MW6D-ROX-011713	1/17/2013		30.75	NE	<0.005	<0.005	<0.005	<0.01	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW6D-ROX-040313	4/3/2013		31.27	NE	<0.0053	0.00069 J	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053 UJ	<0.0053	<0.011	<0.000053	<0.0053 UJ	<0.00011
	MW6D-ROX-070913	7/9/2013		27.91	NE	<0.0055	<0.0055	<0.0055	<0.011	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	<0.00022	<0.00022	<0.011	<0.011	<0.011 UJ	<0.0055	<0.0055	<0.0055	<0.011	<0.000055	<0.0055	<0.00011
	MW6D-ROX-100713	10/7/2013		28.58	NE	<0.0054 UJ	<0.0054	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	MW6D-ROX-011614	1/16/2014		31.33	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052 UJ	<0.0052	<0.01	<0.000052	<0.0052 UJ	<0.0001
	MW6D-ROX-040814	4/8/2014		31.85	NE	<0.0055	<0.00039 U	<0.0055	<0.011	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	<0.000055	<0.0055	<0.00011
	MW6D-ROX-071014	7/10/2014		31.47	NE	<0.0056	<0.00027 U	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000056	<0.0056	<0.00011
	MW6D-ROX-071014-DUP	7/10/2014		31.47	NE	<0.0054	<0.00029 U	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	MW6D-ROX-100814	10/8/2014		29.53	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.0022	<0.0022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	MW6D-ROX-100814-DUP	10/8/2014		29.53	NE	<0.0056	<0.0056	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.0022	<0.0022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000056	<0.0056	<0.00011
	MW6D-ROX-011415	1/14/2015		31.26	NE	<0.0054	<0.0054	<0.0054	<0.011	0.000031 J J	0.000018 J	<0.0054		<0.00011	<0.0054	0.000015 J	0.000033 J	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.000033 J	<0.0054	0.000027 J
	MW6D-ROX-011415-DUP	1/14/2015		31.26	NE	<0.0056	0.00027 J J	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.0022	<0.0022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000056	<0.0056	<0.00011
	MW6D-ROX-040715	4/7/2015	104.72 - 109.72	32.74	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.0021	0.000026 J	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						SVOCs																				
						Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	2,6-Dinitrotoluene	Fluoranthene	Fluorene	Hexachlorobenzene	Indene	Indeno(1,2,3-cd)pyrene	Isophorone (3,5,5-trimethyl-2-cyclohexene-1-one)	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	3-Nitroaniline	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
			Screening Values (mg/L)				0.7 [1]	0.14 [2]	0.00031 [2]	0.28 [1]	0.28 [1]	0.00006 [2]		0.00043 [1]	1.4 [2]	0.49 [3]	0.028 [1]	0.35 [1]	0.35 [3]		0.014 [1]	0.0006 [3]	0.0032 [2]	0.001 [1]	0.21 [3]	0.1 [1]	0.21 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																				
MW-07	MW7-ROX-080712	8/7/2012	42.92 - 52.92	39.50	NE	<0.0051	<0.0051	<0.0051	<0.01	<0.0001	0.00016	<0.0051		<0.0001	<0.0051	0.0055	0.0065	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.00019	0.0576	<0.0001
	MW7-ROX-103012	10/30/2012		41.23	NE	<0.0058	<0.0058	<0.0058	<0.012	<0.00012	0.00023	<0.0058		<0.00012	<0.0058	0.0061 J	0.0077	<0.012	<0.012	<0.012	<0.0058	<0.0058 UJ	<0.0058	<0.012	0.00036	0.0615 J	<0.00005 U
	MW7-ROX-103012-DUP	10/30/2012		41.23	NE	<0.0056	<0.0056	<0.0056	<0.011	<0.00011	0.00026	<0.0056		<0.00011	<0.0056	0.008 J	0.0098	<0.011	<0.011	<0.011	<0.0056	<0.0056 UJ	<0.0056	<0.011	0.00037	0.0812 J	<0.00005 U
	MW7-ROX-011513	1/15/2013		42.21	NE	<0.0053 UJ	<0.0053	<0.0053	<0.011	0.00004 J	0.00061	<0.0053		<0.00011	<0.0053	0.0187	0.0224	<0.011	<0.011	<0.011	<0.0053	<0.0053 UJ	<0.0053	<0.011	0.00086	0.0865 J	0.000089 J
	MW7-ROX-011513-DUP	1/15/2013		42.21	NE	<0.0052 UJ	<0.0052	<0.0052	<0.01	<0.0001	0.00057	<0.0052		<0.0001	<0.0052	0.0173	0.0207	<0.01	<0.01	<0.01	<0.0052	<0.0052 UJ	<0.0052	<0.01	0.00078	0.0735 J	0.000078 J
	MW7-ROX-041013	4/10/2013		42.70	NE	<0.0054	<0.0054	<0.0054	<0.011	0.000039 J	0.00081	<0.0054		<0.00011	<0.0054	0.0271	0.0351	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.0014	0.147	0.00015
	MW7-ROX-041013-DUP	4/10/2013		42.70	NE	<0.0053	<0.0053	<0.0053	<0.011	0.000068 J	0.00087	<0.0053		<0.00011	<0.0053	0.0274	0.0357	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.0015	0.148	0.00016
	MW7-ROX-071713	7/17/2013		39.60	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	0.00019	<0.0054		0.000078 J	<0.0054	0.0043	0.006	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00024	0.118	0.000039 J
	MW7-ROX-101613	10/16/2013		40.64	NE	<0.0055	<0.0055	<0.0055	<0.011	<0.00011	0.00022	<0.0055		<0.00011	<0.0055	0.0082	0.011	<0.011	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	0.00019	0.0849	<0.00011
	MW7-ROX-013014	1/30/2014		42.94	NE	<0.005	<0.0007 U	<0.005	<0.01	<0.0001	0.00021	<0.005		<0.0001	<0.005	0.0059	0.0083	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	0.00029	0.0314	<0.0001
	MW7-ROX-041614	4/16/2014		43.79	NE	<0.0052	<0.00071 U	<0.0052	<0.01	<0.0001	0.00026	<0.0052		<0.0001	<0.0052	0.0074	0.0103	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.00033 B	0.0988	<0.0001
	MW7-ROX-071614	7/16/2014		42.05	NE	<0.0052	<0.00027 U	<0.0052	<0.01	<0.0001	0.00021	<0.0052		<0.0001	<0.0052	0.0052	0.0079	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.00028	0.0618	<0.0001
	MW7-ROX-071614-DUP	7/16/2014		42.05	NE	<0.0052	<0.00038 U	<0.0052	<0.01	<0.0001	0.00019	<0.0052		<0.0001	<0.0052	0.0052	0.0077	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.00026	0.0638	<0.0001
	MW7-ROX-101614	10/16/2014		41.31	NE	<0.0056	<0.0056	<0.0056	<0.011	<0.00011	0.0002	<0.0056		<0.00011	<0.0056	0.0049	0.0074	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.00028	0.155	<0.00011
	MW7-ROX-101614-DUP	10/16/2014		41.31	NE	<0.0057	<0.0057	<0.0057	<0.011	<0.00011	0.00019	<0.0057		<0.00011	<0.0057	0.0047	0.007	<0.011	<0.011	<0.011	<0.0057	<0.0057	<0.0057	<0.011	0.00027	0.133	<0.00011
	MW7-ROX-012215	1/22/2015		43.45	NE	<0.0053	0.00035 J	<0.0053	<0.011	<0.000063 U	0.00024	<0.0053		0.00003 J	<0.0053	0.0053	0.0068	<0.011	0.00059 J	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00049	0.145	<0.000099 U
	MW7-ROX-012215-DUP	1/22/2015		43.45	NE	<0.0052	0.00027 J	<0.0052	<0.01	<0.000021 U	0.00022	<0.0052		<0.0001	<0.0052	0.0052	0.0066	<0.01	0.00056 J	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.00045	0.136	<0.000058 U
	MW7-ROX-042115	4/21/2015	42.92 - 52.92	44.63	NE	<0.0051	<0.0051	<0.0051	<0.01	<0.0001	0.00033	<0.0051		<0.0001	<0.0051	0.008	0.01	0.00037 J	0.0011 J	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.00066	0.0707	0.000057 J
	MW7-ROX-042115-DUP	4/21/2015		44.63	NE	<0.0051	<0.0051	<0.0051	<0.01	0.000026 J	0.0003	<0.0051		<0.0001	<0.0051	0.0074	0.0093	0.00032 J	0.0011 J	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.00063	0.0766	0.000066 J
MW-08	MW8-ROX-080712	8/7/2012	33.60 - 43.60	30.97	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	0.00027	<0.0054		<0.00011	<0.0054	0.0091	0.0109	0.0075 J	0.0231	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00015	0.136	<0.00011
	MW8-ROX-080712-DUP	8/7/2012		30.97	NE	<0.0056	<0.0056	<0.0056	<0.011	<0.00011	0.00026	<0.0056		<0.00011	<0.0056	0.0092	0.0111	0.0081 J	0.024	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.00014	0.134	<0.00011
	MW8-ROX-103012	10/30/2012		32.32	NE	<0.0053	0.00082 J	0.00063 J	<0.011	0.00059 B	0.00053	<0.0053		0.00059 B	<0.0053	0.0097	0.0112	0.0058 J	0.0158	<0.011	<0.0053	<0.0053 UJ	0.00052 J	0.003 J	0.00057	0.165 J	0.00054 B
	MW8-ROX-011513	1/15/2013		33.30	NE	<0.0056 UJ	<0.0056	<0.0056	<0.011	<0.00011	0.00041	<0.0056		<0.00011	<0.0056	0.011	0.0129	0.0332	0.102	<0.011	<0.0056	<0.0056 UJ	<0.0056	<0.011	0.00016	0.0997 J	<0.00011
	MW8-ROX-041013	4/10/2013		33.77	NE	<0.0053	0.0013 J	<0.0053	<0.011	0.000056 J	0.00032	<0.0053		<0.00011	<0.0053	0.0091	0.0113	0.0388	0.084	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00019	0.253 J	0.000042 J
	MW8-ROX-071713	7/17/2013		30.43	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.0001	0.00033	<0.0052		<0.0001	<0.0052	0.0097 J	0.0113	0.0046 J	0.0106	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.00015	0.328	0.000062 J
	MW8-ROX-071713-DUP	7/17/2013		30.43	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	0.00036	<0.0054		<0.00011	<0.0054	0.0087 J	0.0098	0.0037 J	0.0091 J	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00016	0.303	<0.00011
	MW8-ROX-101613	10/16/2013		31.59	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	0.00041	<0.0054		<0.00011	<0.0054	0.0117	0.0136	0.0022 J	0.0052 J	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00011	0.0996	<0.00011
	MW8-ROX-101613-DUP	10/16/2013		31.59	NE	<0.0059	<0.0059	<0.0059	<0.012	<0.00012	0.00037	<0.0059		<0.00012	<0.0059	0.0108	0.0128	0.0019 J	0.0046 J	<0.012	<0.0059	<0.0059	<0.0059	<0.012	0.000097	0.108	<0.00012
	MW8-ROX-013014	1/30/2014		34.02	NE	<0.0051	<0.0011 U	<0.0051	<0.01	<0.0001	0.00054	<0.0051		<0.0001	<0.0051	0.0137	0.0123	0.0128	0.0198	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.00018	0.105	<0.0001
	MW8-ROX-013014-DUP	1/30/2014		34.02	NE	<0.0054	<0.00092 U	<0.0054	<0.011	<0.00011	0.00052	<0.0054		<0.00011	<0.0054	0.0136	0.0123	0.0129	0.019	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00019	0.135	<0.00011
	MW8-ROX-041614	4/16/2014		34.73	NE	<0.0056	<0.00073 U	<0.0056	<0.011	<0.00011	0.00046	<0.0056		<0.00011	<0.0056	0.0142	0.0097	<0.011	0.0062 J	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.00015 B J	0.135	<0.00011
	MW8-ROX-041614-DUP	4/16/2014		34.73	NE	<0.0051	<0.0006 U	<0.0051	<0.01	<0.0001	0.00043	<0.0051		<0.0001	<0.0051	0.0129	0.0086	<0.01	0.0053 J	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.00016 B J	0.118	<0.0001
	MW8-ROX-071614	7/16/2014		33.01	NE	<0.0052	<0.00045 U	<0.0052	<0.01	<0.0001	0.00038	<0.0052		<0.0001	<0.0052	0.0125	0.0048	0.0037 J	0.0045 J	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.0002 B	0.111	<0.0001
	MW8-ROX-101614	10/16/2014		32.23	NE	<0.0056	<0.0056	<0.0056	<0.011	<0.00011	0.00054	<0.0056		<0.00011	<0.0056	0.0145	0.0045	0.019	0.0558	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.00023	0.126	<0.00011
	MW8-ROX-012215	1/22/2015		34.22	NE	<0.0052	0.00027 J	<0.0052	<0.01	<0.0001	0.00037	<0.0052		<0.0001	<0.0052	0.011	0.0046	0.0102	0.0242	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.00016 B	0.146	<0.0001
	MW8-ROX-042115	4/21/2015	33.60 - 43.60	35.41	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	0.00041	<0.0053		<0.00011	<0.0053	0.0126	0.0053	0.0049 J	0.0063 J	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00014	0.129	<0.00011
MW-09	MW9-ROX-072712	7/27/2012	46.45 - 56.45	41.30	NE	<0.005	<0.00054 U	<0.005	<0.01	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01 UJ	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW9-ROX-102912	10/29/2012		43.17	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
	MW9-ROX-011113	1/11/2013		43.90	NE	<0.0054 UJ	<0.0054	<0.0054	<0.011	0.000066 J	0.00011	<0.0054		<0.00011	<0.0054	<0.00022	0.00014 J	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00012	<0.0054	0.000057 J
	MW9-ROX-040913	4/9/2013		44.67	NE	<0.0052 UJ	<0.0018 UJ	<0.0052 UJ	<0.01 UJ	<0.0001 UJ	<0.0001 UJ	<0.0052 UJ		<0.0001 UJ	<0.0052 UJ	<0.00021 UJ	<0.00021 UJ	<0.01 UJ	<0.01 UJ	<0.01 UJ	<0.0052 UJ	<0.0052 UJ	<0.0052 UJ	<0.01 UJ	<0.000052 UJ	<0.0052 UJ	<0.0001 UJ
	MW9-ROX-070813	7/8/2013		42.35	NE	<0.0056	<0.0056	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.00022	<0.00022			<0.011	<0.0056	<0.0056	<0.0056		<0.000028 U		<0.00011
	MW9-ROX-100313	10/3/2013		42.27	NE	<0.005	<0.005	<0.005	<0.01	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW9-ROX-011414	1/14/2014		44.47	NE	<0.0053 UJ	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011 UJ	<0.011 UJ	<0.011	<0.0053	<0.0053	<0.0053	<0.011 UJ	<0.000053	<0.0053 UJ	<0.00011
	MW9-ROX-040714	4/7/2014		44.99	NE	<0.0056	<0.00062 U	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.00022	0.0001 J	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000056 U	<0.0056	<0.00011
	MW9-ROX-070914	7/9/2014		44.35	NE	<0.0054	<0.0006 U	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	MW9-ROX-100714	10/7/2014		43.52	NE	<0.0059	<0.0059	<0.0059	<0.012	<0.00012	<0.00012	<0.0059		<0.00012	<0.0059	<0.0024	<0.0024	<0.012	<0.012	<0.012	<0.0059	<0.0059	<0.0059	<0.012	<0.000059	<0.0059	<0.00012
	MW9-ROX-011315	1/13/2015		44.21	NE	<0.0052	0.00023 J	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.0021	<0.0021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.000016 JB	<0.0052	<0.0001
	MW9-ROX-040915	4/9/2015	46.45 - 56.45	45.38	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.0001	0.000027 J	<0.0052		<0.0001	<0.0052	<0.0021	0.000018 JB J	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.000026 J	<0.0052	<0.0001

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						SVOCs																				
						Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	2,6-Dinitrotoluene	Fluoranthene	Fluorene	Hexachlorobenzene	Indene	Indeno(1,2,3-cd)pyrene	Isophorone (3,5,5-trimethyl-2-cyclohexene-1-one)	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	3-Nitroaniline	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
					Screening Values (mg/L)		0.7 [1]	0.14 [2]	0.00031 [2]	0.28 [1]	0.28 [1]	0.00006 [2]		0.00043 [1]	1.4 [2]	0.49 [3]	0.028 [1]	0.35 [1]	0.35 [3]		0.014 [1]	0.0006 [3]	0.0032 [2]	0.001 [1]	0.21 [3]	0.1 [1]	0.21 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																				
MW-10	MW10-ROX-072712	7/27/2012	44.43 - 54.43	41.21	NE	<0.005	<0.00043 U	<0.005	<0.01	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01 UJ	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW10-ROX-102612	10/26/2012		43.08	NE	<0.0056	<0.0056	<0.0056	<0.011	0.000052 J	0.000086 J	<0.0056		<0.00011	<0.0056	<0.00022	0.00009 J	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.000076	<0.0056	0.00004 J
	MW10-ROX-121712	12/17/2012		43.08	NE																					
	MW10-ROX-011013	1/10/2013		44.10	NE	<0.005 UJ	<0.005	<0.005	<0.01	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.000021 U	<0.005	<0.0001
	MW10-ROX-012113	1/21/2013		44.10	NE	<0.01	<0.01	<0.01	<0.001	<0.0001	<0.0001	<0.002		<0.0001	<0.01		<0.01	<0.01	<0.01	<0.01	<0.002	<0.004	<0.02	<0.003	<0.004	<0.0001	<0.005	<0.0001
	MW10-ROX-040913	4/9/2013		44.60	NE	<0.0054 UJ	<0.0019 U	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	MW10-ROX-070813	7/8/2013		42.27	NE	<0.0056	<0.0056	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000021 U	<0.0056	<0.00011
	MW10-ROX-100313	10/3/2013		42.38	NE	<0.0056	<0.0056	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000056	<0.0056	<0.00011
	MW10-ROX-011514	1/15/2014		44.42	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		0.000072 J	<0.0053	<0.00021	<0.00021	<0.011 UJ	<0.011 UJ	<0.011	<0.0053	<0.0053	<0.0053	<0.011 UJ	0.000037 JB	<0.0054 UJ	<0.00011
	MW10-ROX-040714	4/7/2014		45.00	NE	<0.0053	<0.00085 U	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000042 U	<0.0053	<0.00011
	MW10-ROX-070914	7/9/2014		44.35	NE	<0.0054	<0.00065 U	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	MW10-ROX-100714	10/7/2014		43.58	NE	<0.0057	<0.0057	<0.0057	<0.011	<0.00011	<0.00011	<0.0057		<0.00011	<0.0057	<0.0023	<0.0023	<0.011	<0.011	<0.011	<0.0057	<0.0057	<0.0057	<0.011	<0.000057	<0.0057	<0.00011
	MW10-ROX-011315	1/13/2015		44.27	NE	<0.0056	<0.0056	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.0022	<0.000018 U	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000056	<0.0056	<0.00011
	MW10-ROX-040815	4/8/2015	44.43 - 54.43	45.30	NE	<0.0051	<0.0051	<0.0051	<0.01	0.000016 J	<0.0001	<0.0051		<0.0001	<0.0051	<0.002	0.00002 JB	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.000019 J	<0.0051	<0.0001
MW-11	MW11-ROX-072712	7/27/2012	41.66 - 51.66	38.90	NE	<0.0058	<0.00057 U	<0.0058	<0.012	<0.00012	<0.00012	<0.0058		<0.00012	<0.0058	<0.00023	<0.00023	<0.012	<0.012 UJ	<0.012	<0.0058	<0.0058	<0.0058	<0.012	<0.000058	<0.0058	<0.00012
	MW11-ROX-102512	10/25/2012		40.59	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054 UJ	<0.00011
	MW11-ROX-011013	1/10/2013		41.43	NE	<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.01 UJ	<0.0001 UJ	<0.0001 UJ	<0.005 UJ		<0.0001 UJ	<0.005 UJ	<0.0002 UJ	<0.0002 UJ	<0.01 UJ	<0.01 UJ	<0.01 UJ	<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.01 UJ	<0.000015 UJ	<0.005 UJ	<0.0001 UJ
	MW11-ROX-040813	4/8/2013		42.02	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	MW11-ROX-070813	7/8/2013		39.24	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	MW11-ROX-100713	10/7/2013		39.95	NE	<0.0055 UJ	<0.0055	<0.0055	<0.011	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	<0.000055	<0.0055	<0.00011
	MW11-ROX-011514	1/15/2014		42.16	NE	<0.0055	<0.0055	<0.0055	<0.011	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	<0.000026 U	<0.0055	<0.00011
	MW11-ROX-040714	4/7/2014		42.70	NE	<0.0056	<0.0007 U	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000023 U	<0.0056	<0.00011
	MW11-ROX-070914	7/9/2014		41.75	NE	<0.0057	<0.00042 U	<0.0057	<0.011	<0.00011	<0.00011	<0.0057		<0.00011	<0.0057	<0.00023	<0.00023	<0.011	<0.011	<0.011	<0.0057	<0.0057	<0.0057	<0.011	0.00003 J	<0.0057	<0.00011
	MW11-ROX-100714	10/7/2014		40.89	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.0021	<0.0021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
	MW11-ROX-011315	1/13/2015		41.93	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.0022	<0.00002 U	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	MW11-ROX-040815	4/8/2015	41.66 - 51.66	43.19	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.0022	0.000022 JB	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
MW-12	MW12-ROX-072712	7/27/2012	41.92 - 51.92	39.22	NE	<0.0053	<0.00063 U	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011 UJ	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	MW12-ROX-102512	10/25/2012		40.95	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053 UJ	<0.00011
	MW12-ROX-011013	1/10/2013		41.83	NE	<0.0051 UJ	<0.0051	<0.0051	<0.01	0.000045 J	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000032 U	<0.0051	<0.0001
	MW12-ROX-040813	4/8/2013		42.46	NE	<0.0052	<0.0052	<0.0052	<0.01	0.000044 J	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
	MW12-ROX-070913	7/9/2013		39.28	NE	<0.0055	<0.0055	<0.0055	<0.011	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	<0.00022	<0.00022	<0.011	<0.011	<0.011 UJ	<0.0055	<0.0055	<0.0055	<0.011	<0.000055	<0.0055	<0.00011
	MW12-ROX-100713	10/7/2013		40.22	NE	<0.0055 UJ	<0.0055	<0.0055	<0.011	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	<0.00022	<0.00022	<0.011 UJ	<0.011 UJ	<0.011	<0.0055	<0.0055	<0.0055	0.0018 J J	<0.000055	<0.0053 UJ	<0.00011
	MW12-ROX-011514	1/15/2014		42.54	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01 UJ	<0.01 UJ	<0.01	<0.0052	<0.0052	<0.0052	<0.01 UJ	<0.000022 U	<0.0052 UJ	<0.0001
	MW12-ROX-040814	4/8/2014		43.15	NE	<0.0051	<0.0006 U	<0.0051	<0.01	<0.00011	<0.00011	<0.0051		<0.00011	<0.0051	<0.00023	<0.00023	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.000021 J	<0.0051	<0.00011
	MW12-ROX-070914	7/9/2014		41.97	NE	<0.0056	<0.00098 U	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000056	<0.0056	<0.00011
	MW12-ROX-100614	10/6/2014		40.98	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.0021	<0.0021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053 UJ	<0.00011
	MW12-ROX-011215	1/12/2015		42.33	NE	<0.0056	0.00023 J	<0.0056	<0.011	0.00002 J	<0.00011	<0.0056		<0.00011	<0.0056	<0.0022	<0.0022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.000018 J	<0.0056	<0.00011
	MW12-ROX-040615	4/6/2015	41.92 - 51.92	43.75	NE	<0.0053	<0.0053	<0.0053	<0.011	0.000019 J	<0.00011	<0.0053		<0.00011	<0.0053	0.000018 J	0.000031 J	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00002 JB U	<0.0053	0.000016 J

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						SVOCs																		
						Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	2,6-Dinitrotoluene	Fluoranthene	Fluorene	Hexachlorobenzene	Indene	Indeno(1,2,3-cd)pyrene	Isophorone (3,5,5-trimethyl-2-cyclohexene-1-one)	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	3-Nitroaniline	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
			Screening Values (mg/L)				0.7 [1]	0.14 [2]	0.00031 [2]	0.28 [1]	0.28 [1]	0.00006 [2]		0.00043 [1]	1.4 [2]	0.49 [3]	0.028 [1]	0.35 [1]	0.35 [3]		0.014 [1]	0.0006 [3]	0.0032 [2]	0.001 [1]	0.21 [3]	0.1 [1]	0.21 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																				
MW-13	MW13-ROX-080812	8/8/2012	25.57 - 35.57	26.67	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.00021	<0.00014 UJ	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	MW13-ROX-110812	11/8/2012		25.30	NE	<0.005	0.00054 J	<0.005	<0.01	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW13-ROX-012313	1/23/2013		29.26	NE	<0.0055 UJ	0.0027 J	<0.0055	<0.011	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	<0.00022	0.00011 J	<0.011	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	<0.000055	<0.0055	<0.00011
	MW13-ROX-041213	4/12/2013		29.44	NE	<0.0051	<0.0051	<0.0051	<0.01	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	0.00011 J	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001
	MW13-ROX-071213	7/12/2013		25.67	NE	<0.0054 UJ	<0.0054	<0.0054	<0.011	<0.000042	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.000067 U	<0.011	<0.011	<0.011	<0.0054	<0.0054 UJ	<0.0054	<0.011	<0.000076	<0.0054 UJ	<0.00004
	MW13-ROX-100913	10/9/2013		26.94	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
	MW13-ROX-012914	1/29/2014		29.63	NE	<0.0055	<0.0055	<0.0055	<0.011	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	<0.000096 U	<0.00022	<0.011	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	<0.000055	<0.0055	<0.00011
	MW13-ROX-041114	4/11/2014		30.15	NE	<0.006	<0.00079 U	<0.006	<0.012	<0.00012	<0.00012	<0.006		<0.00012	<0.006	<0.00024	<0.00024	<0.012	<0.012	<0.012	<0.006	<0.006	<0.006	<0.012	0.000033 J	<0.006	<0.00012
	MW13-ROX-070714	7/7/2014		28.49	NE	<0.0055	<0.0055	<0.0055	<0.011	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	<0.000055	<0.0055	<0.00011
	MW13-ROX-101014	10/10/2014		27.48	NE	<0.006	<0.006	<0.006	<0.012	<0.00012	<0.00012	<0.006		<0.00012	<0.006	<0.0024	<0.0024	<0.012	<0.012	<0.012	<0.006	<0.006	<0.006	<0.012	0.000032 J	<0.006	<0.00012
	MW13-ROX-011615	1/16/2015		29.09	NE	<0.0053	<0.00034 U	<0.0053	<0.011	0.000022 J	0.000035 J	<0.0053		<0.00011	<0.0053	0.00004 J	0.00008 J	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000025 J	<0.0053	0.000046 J
	MW13-ROX-041415	4/14/2015	25.57 - 35.57	30.71	NE	<0.0056	<0.0056	<0.0056	<0.011	0.000025 J	0.000066 J	<0.0056		<0.00011	<0.0056	0.000029 J	0.000055 J	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.00007	<0.0056	0.000023 J
MW-14	MW14-ROX-080312	8/3/2012	33.42 - 43.42	NM	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	0.00071	<0.0053		<0.00011	<0.0053	0.019	0.0038	<0.011	<0.011	<0.011	0.00032 J	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	MW14-ROX-103112	10/31/2012		32.02	NE	<0.005	0.00044 J	<0.005	<0.01	<0.0001	0.00029	<0.005		<0.0001	<0.005	0.0192	0.004	<0.01	<0.01	<0.01	<0.005	<0.005 UJ	<0.005	<0.01	<0.000051	<0.005 UJ	<0.0001
	MW14-ROX-011813	1/18/2013		33.05	NE	<0.005 UJ	<0.005	<0.005	<0.01	<0.0001	0.00064	<0.005		<0.0001	<0.005	0.0215	0.0084	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW14-ROX-041113	4/11/2013		33.31	NE	<0.0054	<0.0054	<0.0054	<0.011	0.000068 J	0.00016	<0.0054		<0.00011	<0.0054	0.0124	0.0018	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.0001	<0.0054	0.000053 J
	MW14-ROX-071213	7/12/2013		30.36	NE	<0.0053 UJ	0.00043 J	<0.0053	<0.011	<0.00011	<0.000093 U	<0.0053		<0.00011	<0.0053	0.0127	0.0027	<0.011	<0.011	<0.011	<0.0053	<0.0053 UJ	<0.0053	<0.011	<0.000032 U	<0.0053 UJ	<0.000067 U
	MW14-ROX-101013	10/10/2013		30.80	NE	<0.0057	<0.0057	<0.0057	<0.011	<0.00011	0.00034	<0.0057		<0.00011	<0.0057	0.0184	<0.00023	<0.011	<0.011	<0.011	<0.0057	<0.0057	<0.0057	<0.011	<0.000057	<0.0057	<0.00011
	MW14-ROX-012914	1/29/2014		33.67	NE	<0.0054	0.00045 J	<0.0054	<0.011	<0.00011	0.00041	<0.0054		<0.00011	<0.0054	0.0075	<0.00022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	MW14-ROX-041114	4/11/2014		34.30	NE	<0.006	<0.00082 U	<0.006	<0.012	<0.00011	0.0003	<0.006		<0.00011	<0.006	0.0018	<0.00023	<0.012	<0.012	<0.012	<0.006	<0.006	<0.006	<0.012	<0.000057	<0.006	<0.00011
	MW14-ROX-070714	7/7/2014		32.82	NE	<0.0054	0.00031 J	<0.0054	<0.011	<0.00011	0.00024	<0.0054		<0.00011	<0.0054	0.0014	<0.00022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00024 J	<0.0054	<0.00011
	MW14-ROX-101414	10/14/2014		31.65	NE	<0.0056	<0.00056 U	<0.0056	<0.011	<0.00011	0.00024	<0.0056		<0.00011	<0.0056	0.0014 J	<0.0022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000021 U	<0.0056	<0.00011
	MW14-ROX-011615	1/16/2015		33.58	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	0.00013	<0.0053		<0.00011	<0.0053	0.00012 J	0.000026 J	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000021 J	<0.0053	<0.00011
	MW14-ROX-041415	4/14/2015	33.42 - 43.42	35.16	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.00011	0.00017	<0.0052		<0.00011	<0.0052	0.00007 J	0.000018 J	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000054	<0.0052	<0.00011
MW-16	MW16-ROX-012313	1/23/2013	37.06 - 47.06	43.05	NE	<0.0053 UJ	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	0.000085 J	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000025 J J	<0.0053	<0.00011
	MW16-ROX-040813	4/8/2013		43.39	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	0.000058 J	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
	MW16-ROX-070813	7/8/2013		40.62	NE	<0.0056	<0.0056	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000018 U	<0.0056	<0.00011
	MW16-ROX-100813	10/8/2013		41.62	NE	<0.0052 UJ	<0.0052 UJ	<0.0052 UJ	<0.01 UJ	<0.0001 UJ	<0.0001 UJ	<0.0052 UJ		<0.0001 UJ	<0.0052 UJ	<0.00021 UJ	<0.00021 UJ	<0.01 UJ	<0.01 UJ	<0.01 UJ	<0.0052 UJ	<0.0052 UJ	<0.0052 UJ	<0.01 UJ	<0.000052 UJ	<0.0052 UJ	<0.0001 UJ
	MW16-ROX-011514	1/15/2014		43.76	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000031 U	<0.0052	<0.0001
	MW16-ROX-040914	4/9/2014		44.63	NE	<0.0059	<0.00067 U	<0.0059	<0.012	<0.00012	<0.00012	<0.0059		<0.00012	<0.0059	<0.00024	<0.00024	<0.012	<0.012	<0.012	<0.0059	<0.0059	<0.0059	<0.012	<0.000059	<0.0059	<0.00012
	MW16-ROX-071014	7/10/2014		43.15	NE	<0.0054	<0.00021 U	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	MW16-ROX-100714	10/7/2014		42.27	NE	<0.006	<0.006	<0.006	<0.012	<0.00012	<0.00012	<0.006		<0.00012	<0.006	<0.0024	<0.0024	<0.012	<0.012	<0.012	<0.006	<0.006	<0.006	<0.012	<0.00006	<0.006	<0.00012
	MW16-ROX-011315	1/13/2015		43.59	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.000016 U	<0.000022 U	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	MW16-ROX-040915	4/9/2015	37.06 - 47.06	44.87	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.000026 JB J	0.000039 JB J	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
MW-22	MW22-ROX-012313	1/23/2013	37.88 - 47.88	41.80	NE	<0.0052 UJ	0.0024 J	<0.0052	<0.01	<0.0001	0.00018	<0.0052		<0.0001	<0.0052	0.0276	0.05	0.018	0.0322	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.00019	0.0111	<0.0001
	MW22-ROX-012313-DUP	1/23/2013		41.80	NE	<0.0053 UJ	0.0024 J	<0.0053	<0.011	<0.00011	0.00018	<0.0053		<0.00011	<0.0053	0.028	0.0501	0.0187	0.0349	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.0002	0.0122	<0.00011
	MW22-ROX-040513	4/5/2013		42.23	NE	<0.0053	0.00057 J	<0.0053	<0.011	<0.00011	0.00018	<0.0053		<0.00011	<0.0053	0.0241	0.0413	0.0236	0.0403	<0.011	<0.0053	<0.0053 UJ	<0.0053	<0.011	0.00019	0.0123 J	<0.00011
	MW22-ROX-071113	7/11/2013		39.35	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	0.00027	<0.0054		<0.00011	<0.0054	0.0232 J	0.0393	0.0159	0.029	<0.011 UJ	<0.0054	<0.0054	<0.0054	<0.011	0.0002 B	0.0094 J	<0.00011
	MW22-ROX-071113-DUP	7/11/2013		39.35	NE	<0.0056	0.00052 J	<0.0056	<0.011	<0.00011	0.00017	<0.0056		<0.00011	<0.0056	0.0216 J	0.037	0.0147	0.0269	<0.011 UJ	<0.0056	<0.0056	<0.0056	<0.011	0.0002 B	0.0088 J	<0.00011
	MW22-ROX-100913	10/9/2013		40.39	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	0.00019	<0.0054		<0.00011	<0.0054	0.0276	0.0468	0.0152	0.0319	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00019	<0.0054	<0.00011
	MW22-ROX-100913-DUP	10/9/2013		40.39	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	0.0002	<0.0054		<0.00011	<0.0054	0.0265	0.0451	0.0139	0.0296	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00016	<0.0054	<0.00011
	MW22-ROX-012014	1/20/2014		42.49	NE	<0.027	<0.027	<0.027	<0.053	<0.00011	0.00017	<0.027		<0.00011	<0.027	0.0258	0.0459	0.0124 J	0.0313 J	<0.053	<0.027	<0.027	<0.027	<0.053	0.0002 B	0.0071 J	<0.00011
	MW22-ROX-012014-DUP	1/20/2014		42.49	NE	<0.027	<0.027	<0.027	<0.054	<0.00011	0.00015	<0.027		<0.00011	<0.027	0.0232	0.0416	0.0118 J	0.0296 J	<0.054	<0.027	<0.027	<0.027	<0.054	0.0002 B	0.007 J	<0.00011
	MW22-ROX-041014	4/10/2014		43.15	NE	<0.028	<0.0016 U	<0.028	<0.056	<0.00011	<0.00011	<0.028		<0.00011	<0.028	0.0174	0.0287	0.0156 J	0.035 J	<0.056	<0.028	<0.028	<0.028	<0.056	0.0001	<0.028	<0.00011
	MW22-ROX-041014-DUP	4/10/2014		43.15	NE	<0.028	<0.0018 U	<0.028	<0.056	<0.00011	0.00012	<0.028		<0.00011	<0.028	0.0199	0.0322	0.0159 J	0.038 J	<0.056	<0.028	<0.028	<0.028	<0.056	0.0001	<0.028	<0.00011
	MW22-ROX-071414	7/14/2014		41.85	NE	<0.0054	<0.00057 U	<0.0054	<0.011	<0.00011	0.00015	<0.0054		<0.00011	<0.0054	0.0198	0.0355	0.0102 J	0.0204	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.00018 U	<0.0054	<0.00011
	MW22-ROX-101014	10/10/2014		41.43	NE	<0.0063	<0.0063	<0.0063	<0.013	<0.00013	0.00014	<0.0063		<0.00013	<0.0063	0.0193	0.0339	0.0064 J	0.011 J	<0.013	<0.0063	<0.0063	<0.0063	<0.013	0.00036	0.0079	<0.00013
	MW22-ROX-011615	1/16/2015		42.19	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	0.00051	<0.0053		<0.00011	<0.0053	0.0153	0.0184	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000064	0.0119	<0.00011
	MW22-ROX-041415	4/14/2015	37.88 - 47.88	43.71	NE	<0.0052	<0.0052	<0.0052	<0.01	0.000016 J	0.00021	<0.0052	0.047 JN	<0.0001	<0.0052	0.024	0.0397	<0.01	0.0201	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.00013	0.0108	0.00002 J

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						SVOCs																		
						Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	2,6-Dinitrotoluene	Fluoranthene	Fluorene	Hexachlorobenzene	Indene	Indeno(1,2,3-cd)pyrene	Isophorone (3,5,5-trimethyl-2-cyclohexene-1-one)	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	3-Nitroaniline	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
					Screening Values (mg/L)		0.7 [1]	0.14 [2]	0.00031 [2]	0.28 [1]	0.28 [1]	0.00006 [2]		0.00043 [1]	1.4 [2]	0.49 [3]	0.028 [1]	0.35 [1]	0.35 [3]		0.014 [1]	0.0006 [3]	0.0032 [2]	0.001 [1]	0.21 [3]	0.1 [1]	0.21 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																				
MW-23	MW23-ROX-012615	1/26/2015	29.02 - 39.02	30.90	NE	<0.005	<0.005	<0.005	<0.005	<0.001	0.00096 J	<0.005 UJ		<0.0002	<0.005	0.0019	0.00056 J	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.025	0.0037	<0.005	<0.001
	MW23-ROX-040815	4/8/2015		32.24	NE	<0.0051	<0.0051	<0.0051	<0.01	0.000029 J	0.000053 J	<0.0051		<0.0001	<0.0051	0.000036 JB J	0.000028 JB J	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.00057	<0.0051	0.00015
MW-24	MW24-ROX-040513	4/5/2013	38.89 - 48.89	43.39	NE	<0.0052	0.00049 J	<0.0052	<0.01	0.000088 J	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	0.00015 J	<0.01	<0.01	<0.01	<0.0052	<0.0052 UJ	<0.0052	<0.01	<0.000052	<0.0052 UJ	0.000066 J
	MW24-ROX-071113	7/11/2013		40.35	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022 UJ	0.000062 J	<0.011 UJ	<0.011 UJ	<0.011 UJ	<0.0054	<0.0054	<0.0054	<0.011 UJ	<0.000038 U	<0.0053 UJ	<0.00011
	MW24-ROX-100913	10/9/2013		41.27	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	MW24-ROX-011514	1/15/2014		43.47	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	MW24-ROX-040914	4/9/2014		44.13	NE	<0.0056	<0.00092 U	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000056	<0.0056	<0.00011
	MW24-ROX-071114	7/10/2014		42.97	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	MW24-ROX-100814	10/8/2014		42.16	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.0022	<0.0022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	MW24-ROX-011315	1/13/2015		43.17	NE	<0.0053	0.00023 J	<0.0053	<0.011	<0.00011	0.000059 J	<0.0053		<0.00011	<0.0053	0.00009 JB	<0.000099 U	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000037 J	<0.0053	<0.00011
	MW24-ROX-040915	4/9/2015	38.89 - 48.89	44.45	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.00002 JB J	0.000035 JB J	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
MW-25	MW25-ROX-102114	10/21/2014	35.59 - 45.59	36.44	NE	<0.0056	<0.0056	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	0.00093 J	0.00057 J	0.0011 J	0.0028 J	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.000033 J	0.173	<0.00011
	MW25-ROX-012215	1/22/2015		38.45	NE	<0.0052	0.00028 J	<0.0052	<0.01	<0.000018 U	<0.0001	<0.0052		<0.0001	<0.0052	0.00036 J	0.00015 J	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	0.107	<0.000019 U
	MW25-ROX-042115	4/21/2015	35.59 - 45.59	39.71	NE	<0.0051	<0.0051	<0.0051	<0.01	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	0.00067 J	0.00035 J	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	0.0592	<0.0001
MW-26	MW26-ROX-102114	10/21/2014	38.15 - 48.15	39.43	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.0021	<0.0021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	MW26-ROX-011215	1/12/2015		41.09	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.0021	<0.000017 U	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.000015 J	<0.0052	<0.0001
	MW26-ROX-040815	4/8/2015	38.15 - 48.15	42.52	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.0021	<0.0021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
MW-27	MW27-ROX-102114	10/21/2014	39.79 - 49.79	41.57	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.0021	<0.0021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	MW27-ROX-011515	1/15/2015		42.06	NE	<0.0053	0.00026 J J	<0.0053 UJ	<0.011	<0.00011	0.000023 J J	<0.0053		0.000047 J J	<0.0053	<0.0021	<0.0021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000028 J J	<0.0053	0.000019 J J
	MW27-ROX-041015	4/10/2015	39.79 - 49.79	43.22	NE	<0.0054	<0.0054	<0.0054	<0.011	0.000024 J J	<0.00011	<0.0054		<0.00011	<0.0054	0.000036 J	0.00007 J	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.000019 JB J	<0.0054	0.000018 J
MW-28	MW28-ROX-102114	10/21/2014	33.61 - 43.61	36.44	NE	<0.0053	0.00026 J	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.00075 J	<0.0021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000017 J	<0.0053	<0.00011
	MW28-ROX-011515	1/15/2015		41.14	NE	<0.0055	0.00033 J J	<0.0055	<0.011	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	0.00047 J	<0.0022	<0.011	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	<0.000055	<0.0055	<0.00011
	MW28-ROX-041415	4/14/2015	33.61 - 43.61	42.34	NE	<0.0057	<0.0057	<0.0057	<0.011	<0.00011	<0.00011	<0.0057		0.000035 J	<0.0057	0.00024 J	0.000037 J	<0.011	<0.011	<0.011	<0.0057	<0.0057	<0.0057	<0.011	<0.000057	<0.0057	<0.00011
P-54	P54-ROX-080212	8/2/2012	38.00 - 63.00	38.95	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	P54-ROX-103012	10/30/2012		40.70	NE	<0.0051	<0.0051	<0.0051	<0.01	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051 UJ	<0.0051	<0.01	<0.000051	<0.0051 UJ	<0.0001
	P54-ROX-011113	1/11/2013		41.56	NE	<0.0053 UJ	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000032 J	<0.0053	<0.00011
	P54-ROX-041013	4/10/2013		41.80	NE	<0.0057 UJ	<0.0057	<0.0057	<0.011	<0.00011	<0.00011	<0.0057		<0.00011	<0.0057	<0.00023	<0.00023	<0.011	<0.011	<0.011	<0.0057	<0.0057	<0.0057	<0.011	<0.000057	<0.0057	<0.00011
	P54-ROX-050313	5/3/2013		41.80	NE	<0.0056	<0.0056	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000056	<0.0056	<0.00011
	P54-ROX-071113	7/11/2013		39.07	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021 UJ	0.000083 J	<0.01	<0.01	<0.01 UJ	<0.0052	<0.0052	<0.0052	<0.01	<0.000049 U	<0.0052 UJ	<0.0001
	P54-ROX-100813	10/8/2013		39.94	NE	<0.0057	<0.0057	<0.0057	<0.011	<0.00011	<0.00011	<0.0057		<0.00011	<0.0057	<0.00023	<0.00023	<0.011	<0.011	<0.011	<0.0057	<0.0057	<0.0057	<0.011	<0.000057	<0.0057	<0.00011
	P54-ROX-011514	1/15/2014		42.20	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	P54-ROX-040914	4/9/2014		42.80	NE	<0.006	<0.00062 U	<0.006	<0.012	<0.00012	<0.00012	<0.006		<0.00012	<0.006	<0.00024	<0.00024	<0.012	<0.012	<0.012	<0.006	<0.006	<0.006	<0.012	<0.00006	<0.006	<0.00012
	P54-ROX-071114	7/10/2014		41.71	NE	<0.0054	<0.00028 U	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	0.00011 J	0.00013 J	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000051 U	<0.0054	<0.00011
	P54-ROX-100814	10/8/2014		40.88	NE	<0.0056	<0.0056	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.0022	<0.0022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000056	<0.0056	<0.00011
	P54-ROX-011415	1/14/2015		41.79	NE	<0.0056	<0.0056	<0.0056	<0.011	0.000021 J J	<0.00011	<0.0056		<0.00011	<0.0056	<0.0022	<0.0022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.00002 J	<0.0056	0.00003 J
	P54-ROX-041015	4/10/2015	38.00 - 63.00	43.20	NE	<0.0053	<0.0053	<0.0053	<0.011	0.00002 J J	<0.00011	<0.0053		<0.00011	<0.0053	0.000024 J	0.000046 J	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000025 JB J	<0.0053	0.000018 J
P-55	P55-ROX-012113	1/21/2013	40.43 - 50.43	43.60	NE	<0.01	<0.01	<0.01	<0.001	<0.0001	0.00133	<0.002		<0.0001	<0.01		0.042	<0.01	<0.01	<0.002	<0.004	<0.02	<0.003	<0.004	0.00211	0.004 J	<0.0001
	P55-ROX-012113	1/21/2013		43.60	NE	<0.0051	0.00069 J	<0.0051	<0.01	<0.0001	0.00093	<0.0051		<0.0001	<0.0051	0.0176	0.0254	<0.01	0.0018 J	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.0017	0.0034 J	<0.0001
	P55-ROX-041513	4/15/2013		43.63	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.0001	0.0013	<0.0052		<0.0001	<0.0052	0.0268	0.0389	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.0021	<0.0052	<0.0001
	P55-ROX-071613	7/16/2013		40.06	NE	<0.0056	<0.0056	<0.0056	<0.011	<0.00011	0.0015	<0.0056		<0.00011	<0.0056	0.0244	0.0353	<0.011 UJ	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.0019	0.0048 J J	<0.00011
	P55-ROX-101013	10/10/2013		41.67	NE	<0.0055	<0.0055	<0.0055	<0.011	<0.00011	0.0014	<0.0055		<0.00011	<0.0055	0.0279	0.0415	<0.011	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	0.0017	0.002 J	<0.00011

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						SVOCs																				
						Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	2,6-Dinitrotoluene	Fluoranthene	Fluorene	Hexachlorobenzene	Indene	Indeno(1,2,3-cd)pyrene	Isophorone (3,5,5-trimethyl-2-cyclohexene-1-one)	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	3-Nitroaniline	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
					Screening Values (mg/L)		0.7 [1]	0.14 [2]	0.00031 [2]	0.28 [1]	0.28 [1]	0.00006 [2]		0.00043 [1]	1.4 [2]	0.49 [3]	0.028 [1]	0.35 [1]	0.35 [3]		0.014 [1]	0.0006 [3]	0.0032 [2]	0.001 [1]	0.21 [3]	0.1 [1]	0.21 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																				
P-56	P56-ROX-080612	8/6/2012	40.82 - 65.82	43.60	NE	<0.0051	<0.00075 U	<0.0051	<0.01	<0.0001	0.0003	<0.0051		<0.0001	<0.0051	0.0143	0.0178	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.0013	<0.0051	<0.0001
	P56-ROX-103112	10/31/2012		44.80	NE	<0.0051	<0.0051	<0.0051	<0.01	<0.0001	0.00046	<0.0051		<0.0001	<0.0051	0.024	0.0307	<0.01	0.0011 J	<0.01	<0.0051	<0.0051 UJ	<0.0051	<0.01	0.0013	<0.0051 UJ	<0.0001
	P56-ROX-011713	1/17/2013		45.65	NE	<0.005	<0.005	<0.005	<0.01	<0.0001	0.00032	<0.005		<0.0001	<0.005	0.0147	0.0131	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	0.0012	0.0014 J	<0.0001
	P56-ROX-041213	4/12/2013		46.12	NE	<0.0055	<0.0055	<0.0055	<0.011	<0.00011	0.00032	<0.0055		<0.00011	<0.0055	0.0208	0.0239	<0.011	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	0.0012	<0.0055	<0.00011
	P56-ROX-071513	7/15/2013		43.25	NE	<0.0055	<0.0055	<0.0055	<0.011	<0.00011	0.00059	<0.0055		<0.00011	<0.0055	0.0315	0.0431	<0.011 UJ	0.0064 J	<0.011	<0.0055	<0.0055	<0.0055	<0.011	0.0015	<0.0055 UJ	<0.00011
	P56-ROX-101013	10/10/2013		44.48	NE	<0.0055	<0.0055	<0.0055	<0.011	<0.00011	0.00044	<0.0055		<0.00011	<0.0055	0.0251	0.03	<0.011	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	0.0013	<0.0055	<0.00011
	P56-ROX-012214	1/22/2014		46.35	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.0001	0.00035	<0.0052		<0.0001	<0.0052	0.0193	0.0228	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.0012	<0.0052	<0.0001
	P56-ROX-041414	4/14/2014		47.32	NE	<0.0059	0.00051 J	<0.0059	<0.012	<0.00012	0.00038	<0.0059		<0.00012	<0.0059	0.0223	0.0269	<0.012	0.0008 J	<0.012	<0.0059	<0.0059	<0.0059	<0.012	0.0012	<0.0059	<0.00012
	P56-ROX-070814	7/8/2014		45.97	NE	<0.0056	<0.0056	<0.0056	<0.011	<0.00011	0.00036	<0.0056		<0.00011	<0.0056	0.0181	0.0243	<0.011	0.0165	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.001	<0.0056	<0.00011
	P56-ROX-101314	10/13/2014		45.05	NE	<0.0054	<0.00035 U	<0.0054	<0.011	<0.00011	0.00041	<0.0054		<0.00011	<0.0054	0.0235	0.0296	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.0015	<0.0054	<0.00011
	P56-ROX-011915	1/19/2015		46.58	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	0.0003	<0.0054		<0.00011	<0.0054	0.0197	0.0223	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.0011	<0.0054	0.00003 J
	P56-ROX-041515	4/15/2015	40.82 - 65.82	48.05	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	0.00041	<0.0054		<0.00011	<0.0054	0.026	0.0293	<0.011	0.0011 J	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.0013	<0.0054	0.000027 J J
P-57	P57-ROX-080612	8/6/2012	40.46 - 65.46	43.53	NE	<0.005	<0.00087 U	<0.005	<0.01	<0.0001	0.0006	<0.005		<0.0001	<0.005	0.0244	0.0326	<0.01	0.0013 J	<0.01	<0.005	<0.005	<0.005	<0.01	0.00053	0.0697 J	<0.0001
	P57-ROX-080612-DUP	8/6/2012		43.53	NE	<0.005	<0.00089 U	<0.005	<0.01	<0.0001	0.00063	<0.005		<0.0001	<0.005	0.0242	0.0321	<0.01	0.0013 J	<0.01	<0.005	<0.005	<0.005	<0.01	0.00054	0.0921 J	<0.0001
	P57-ROX-110512	11/5/2012		44.98	NE	<0.005	<0.005	<0.005	<0.01	<0.0001	0.00062	<0.005		0.00005 J	<0.005	0.0249	0.0305	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	0.00048	0.0547 J	<0.0001
	P57-ROX-012913	1/29/2013		45.92	NE	<0.0059	<0.0059	<0.0059	<0.012	<0.00012	0.00094	<0.0059		<0.00012	<0.0059	0.0369	0.0447	<0.012	<0.012	<0.012	<0.0059	<0.0059	<0.0059	<0.012	0.00074	<0.0059 UJ	<0.00012
	P57-ROX-041113	4/11/2013		46.29	NE	<0.0051	<0.0051	<0.0051	<0.01	<0.0001	0.00076	<0.0051		<0.0001	<0.0051	0.0348	0.0453	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.00074	0.146	<0.0001
	P57-ROX-071613	7/16/2013		43.38	NE	<0.0056	<0.0056	<0.0056	<0.011	0.000038 J	0.0008	<0.0056		<0.00011	<0.0056	0.0267	0.0365	<0.011 UJ	0.0086 J	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.00073	0.164 J	<0.000052 U
	P57-ROX-101413	10/14/2013		44.38	NE	<0.0054	0.00049 J	<0.0054	<0.011	<0.00011	0.00067	<0.0054		<0.00011	<0.0054	0.0252	0.0324	<0.011	<0.011	<0.011	<0.0054	<0.0054 UJ	<0.0054	<0.011	0.00049	0.202	0.000047 J
	P57-ROX-020314	2/3/2014		46.57	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	0.00062	<0.0053		<0.00011	<0.0053	0.0234	0.0314	<0.011	0.0027 J	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00052	0.168 J	<0.00011
	P57-ROX-041514	4/15/2014		46.70	NE	<0.0056	<0.00058 U	<0.0056	<0.011	<0.00011	0.00061	<0.0056		<0.00011	<0.0056	0.0238	0.032	<0.011	<0.011	<0.011	<0.0056	<0.0056 UJ	<0.0056	<0.011	0.00045 J	0.106 J	<0.00011
	P57-ROX-070814	7/8/2014		45.95	NE	<0.0053	0.00026 J	<0.0053	<0.011	<0.00011 UJ	0.00055	<0.0053	0.024 JN	<0.00011	<0.0053	0.022	0.0306	<0.011	0.0303	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00047	0.141	<0.00011
	P57-ROX-070814-DUP	7/8/2014		45.95	NE	<0.0054	0.00027 J	<0.0054	<0.011	<0.00011 UJ	0.00054	<0.0054	0.023 JN	<0.00011	<0.0054	0.022	0.03	<0.011	0.0299	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00048	0.136	<0.00011
	P57-ROX-101414-DUP	10/14/2014		45.00	NE	<0.0058	<0.00082 U	<0.0058	<0.012	<0.00012	0.00065	<0.0058		<0.00012	<0.0058	0.0243	0.0338	<0.012	0.0138	<0.012	<0.0058	<0.0058	<0.0058	<0.012	0.00058	0.271 J	<0.00012
	P57-ROX-101414	10/14/2014		45.00	NE	<0.0056	<0.00086 U	<0.0056	<0.011	<0.00011	0.00068	<0.0056		<0.00011	<0.0056	0.026	0.0345	<0.011	0.0152	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.00059	0.274 J	<0.00011
	P57-ROX-012315	1/23/2015	44.19 - 54.19	47.52	NE	<0.0053	0.00039 J	<0.0053	<0.011	<0.00002 U	0.00098	<0.0053		<0.00011	<0.0053	0.0385	0.0507	<0.011	0.0044 J	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00062	0.159	<0.000027 U
	P57-ROX-042015	4/20/2015	44.19 - 54.19	48.73	NE	<0.0052	0.00037 J	<0.0052	<0.01	<0.0001	0.00089	<0.0052		<0.0001	<0.0052	0.0312	0.045	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.0007	0.164	0.000021 J
P-58	P58-ROX-080612	8/6/2012	40.21 - 65.21	41.63	NE	<0.005	<0.00053 U	<0.005	<0.01	0.000068 J	0.0014	<0.005		<0.0001	<0.005	0.0524	0.0691	<0.01	0.0146	<0.01	<0.005	<0.005	<0.005	<0.01	0.001	0.15	<0.0001 UJ
	P58-ROX-080612-DUP	8/6/2012		41.63	NE	<0.005	<0.00063 U	<0.005	<0.01	0.000066 J	0.0015	<0.005		<0.0001	<0.005	0.0596	0.079	<0.01	0.0195	<0.01	<0.005	<0.005	<0.005	<0.01	0.0011	0.19	0.00021 J
	P58-ROX-110612	11/6/2012		43.09	NE																						
	P58-ROX-121012	12/10/2012		43.09	NE	<0.0054 UJ	<0.0054	<0.0054	<0.011	<0.00011	0.0014	<0.0054		<0.00011	<0.0054	0.0616	0.0807	<0.011	0.0124	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00085	0.178	0.00012
	P58-ROX-012213	1/22/2013		44.21	NE	<0.0054	<0.0054	<0.0054	<0.011	0.00024	0.003	<0.0054		0.000072 J	<0.0054	0.068	0.0846	<0.011	0.0198	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.0023	0.208	0.00077
	P58-ROX-041113	4/11/2013		44.40	NE	<0.0054	<0.0054	<0.0054	<0.011	0.00019	0.0022	<0.0054		<0.00011	<0.0054	0.0692	0.0961	<0.011	0.014	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.0021	0.0985	0.00055
	P58-ROX-071613	7/16/2013		41.49	NE	<0.0055	<0.0055	<0.0055	<0.011	0.000071 J	0.0013	<0.0055		<0.00011	<0.0055	0.0544	0.0708	<0.011 UJ	0.0359	<0.011	<0.0055	<0.0055	<0.0055	<0.011	0.00099	0.247	<0.0002 U
	P58-ROX-101413	10/14/2013		42.19	NE	<0.0054	0.00058 J	<0.0054	<0.011	0.000066 J	0.0014	<0.0054		<0.00011	<0.0054	0.0488	0.0628	<0.011	0.0481	<0.011	<0.0054	<0.0054 UJ	<0.0054	<0.011	0.00095	0.213	0.00021
	P58-ROX-020314	2/3/2014		44.66	NE	<0.0052	<0.0052	<0.0052	<0.01	0.000058 J	0.0011	<0.0052		<0.0001	<0.0052	0.0353	0.0474	<0.01	0.0073 J	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.00069	0.123 J	0.00014
	P58-ROX-041514	4/15/2014		45.66	NE	<0.0053 UJ	<0.0013 U	0.00072 J	<0.011 UJ	0.00079	0.0017	0.00088 J		0.00072	<0.0053 UJ	0.0284	0.0381	<0.011 UJ	0.0136 J	<0.011 UJ	<0.0053	0.0021 J J	<0.0053 UJ	<0.011 UJ	0.0013	0.123 J	0.00085
	P58-ROX-071814	7/18/2014		43.80	NE	<0.0055	<0.00032 U	<0.0055	<0.011	0.000062 J	0.0012	<0.0055		0.0005	<0.0055	0.0412	0.0554	<0.011	0.012	<0.011	<0.0055	<0.0055	<0.0055	<0.011	0.00092	0.173	0.00022
	P58-ROX-101514	10/15/2014		43.14	NE	<0.0054	<0.0054	<0.0054	<0.011	0.000064 J	0.0015	<0.0054		<0.00011	<0.0054	0.0504	0.0674	<0.011	0.0237	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.001	0.145	0.00024
	P58-ROX-012315	1/23/2015		45.32	NE	<0.0053	0.00038 J	<0.0053	<0.011	<0.000028 U	0.0011	<0.0053		<0.00011	<0.0053	0.0428	0.0565	<0.011	0.0025 J	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00064	0.162	0.000097 JB
	P58-ROX-042015	4/20/2015	40.21 - 65.21	46.67	NE	<0.0052	0.00028 J	<0.0052	<0.01	0.000048 J	0.0012	<0.0052		<0.0001	<0.0052	0.0444	0.0563	<0.01	0.0047 J	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.00075	0.112	0.00019

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						SVOCs																		
						Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	2,6-Dinitrotoluene	Fluoranthene	Fluorene	Hexachlorobenzene	Indene	Indeno(1,2,3-cd)pyrene	Isophorone (3,5,5-trimethyl-2-cyclohexene-1-one)	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	3-Nitroaniline	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
					Screening Values (mg/L)		0.7 [1]	0.14 [2]	0.00031 [2]	0.28 [1]	0.28 [1]	0.00006 [2]		0.00043 [1]	1.4 [2]	0.49 [3]	0.028 [1]	0.35 [1]	0.35 [3]		0.014 [1]	0.0006 [3]	0.0032 [2]	0.001 [1]	0.21 [3]	0.1 [1]	0.21 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																				
P-59	P59-ROX-080212	8/2/2012	47.91 - 72.91	44.07	NE	<0.0053	<0.0053	<0.0053	<0.011	0.00015	0.00048	<0.0053		<0.00011	<0.0053	0.0136	0.0207	0.0018 J	0.0032 J	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.001	0.0419	0.00021
	P59-ROX-110212	11/2/2012		45.98	NE	<0.0053	<0.0053	<0.0053	<0.011	0.000063 J	0.0005	<0.0053		<0.00011	<0.0053	0.0187	0.0282	0.0065 J	0.0137	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00075	0.0766 J	0.00009 J
	P59-ROX-110212-DUP	11/2/2012		45.98	NE	<0.0052	<0.0052	<0.0052	<0.01	0.000066 J	0.00048	<0.0052		<0.0001	<0.0052	0.0179	0.0268	0.0056 J	0.0116	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.00073	0.0656 J	0.000093 J
	P59-ROX-013013	1/30/2013		46.60	NE	<0.0052 UJ	0.0022 J	<0.0052	<0.01	<0.000079 U	0.00069	<0.0052		<0.0001	<0.0052	0.0222	0.0305	0.154	0.107	<0.01 UJ	<0.0052	<0.0052 UJ	<0.0052	<0.01	0.001	0.141 J	<0.00011 U
	P59-ROX-041213	4/12/2013		46.95	NE	<0.0054	<0.0054	<0.0054	<0.011	0.000077 J	0.00064	<0.0054		<0.00011	<0.0054	0.0247	0.0369	0.174	0.0842	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.0012	0.119	0.000098 J
	P59-ROX-041213-DUP	4/12/2013		46.95	NE	<0.0053	<0.0053	<0.0053	<0.011	0.000078 J	0.00065	<0.0053		<0.00011	<0.0053	0.0265	0.0383	0.154	0.0794	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.0012	0.101	0.0001 J
	P59-ROX-071613	7/16/2013		44.13	NE	<0.0054	<0.0054	<0.0054	<0.011	0.000061 J	0.00063	<0.0054		<0.00011	<0.0054	0.0189	0.0302	0.17	0.042	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00087	0.121 J	<0.000078 U
	P59-ROX-101013	10/10/2013		45.50	NE	<0.0054	<0.0054	0.00091 J	<0.011	0.00015	0.0007	<0.0054		<0.00011	<0.0054	0.0192	0.0305	0.201	0.0528	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.0014	0.0524	0.00028
	P59-ROX-020314	2/3/2014		47.35	NE	<0.0052	<0.0052	<0.0052	<0.01	0.00012	0.00067	<0.0052		<0.0001	<0.0052	0.0141	0.0214	0.31 J	0.0142	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.0014	0.0444 J	0.00019
	P59-ROX-041514	4/15/2014		48.60	NE	<0.0053	<0.0053	<0.0053	<0.011	0.00015	0.00066	<0.0053		<0.00011	<0.0053	0.0233	0.0317	<0.011	0.0186 J	<0.011	<0.0053	<0.0053 UJ	<0.0053	<0.011	0.0016	0.13 J	0.0003
	P59-ROX-070814	7/8/2014		47.69	NE	<0.0057	0.00045 J	<0.0057	<0.011	0.000053 J J	0.00046	<0.0057		<0.00011	<0.0057	0.0181	0.0291	0.0793	0.0184	<0.011	<0.0057	<0.0057	<0.0057	<0.011	0.00088	<0.0057	0.0001 J
	P59-ROX-101414	10/14/2014		46.18	NE	<0.0054	<0.00042 U	<0.0054	<0.011	<0.00054	0.00087	<0.0054		<0.00054	<0.0054	0.0268	0.0425	0.0387	0.0092 J	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.0015	0.0361	<0.00054
	P59-ROX-011915	1/19/2015		47.42	NE	<0.0054	<0.0054	<0.0054	<0.011	0.00014	0.00073	<0.0054		<0.00011	<0.0054	0.0145	0.0216	0.0789	0.0145	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.0013	0.0169	0.00027
	P59-ROX-041615	4/16/2015	47.91 - 72.91	48.83	NE	<0.0054	<0.0054	<0.0054	<0.011	0.000078 J	0.00028	<0.0054	0.057 JN	<0.00011	<0.0054	0.0136	0.0189	0.0661	0.168	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00081	0.0909	0.00014
P-66	P66-ROX-080312	8/3/2012	34.72 - 59.72	30.51	NE	<0.0053	<0.0053	<0.0053	<0.011	0.000082 J	0.0011	<0.0053		<0.00011	<0.0053	0.0541	0.028	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00057	<0.0053	0.00013
	P66-ROX-103112	10/31/2012		34.75	NE	<0.005	<0.005	<0.005	<0.01	<0.000051 U	0.0017	<0.005		<0.0001	<0.005	0.0689	0.0268	<0.01	<0.01	<0.01	<0.005	<0.005 UJ	<0.005	<0.01	0.00054	<0.005 UJ	<0.00007 U
	P66-ROX-011813	1/18/2013		35.70	NE	<0.0053 UJ	<0.0053	<0.0053	<0.011	0.000076 J	0.0019	<0.0053		<0.00011	<0.0053	0.0655	0.0315	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00082	0.0019 J	0.00011
	P66-ROX-041113	4/11/2013		36.03	NE	<0.0053	<0.0053	<0.0053	<0.011	0.000072 J	0.0017	<0.0053		<0.00011	<0.0053	0.0681	0.0131	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00091	<0.0053	0.000087 J
	P66-ROX-071213	7/12/2013		33.20	NE	<0.0056 UJ	<0.0056	<0.0056	<0.011	<0.00019 U	0.0018	<0.0056		0.00017	<0.0056	0.0688	0.0642	<0.011	<0.011	<0.011	<0.0056	<0.0056 UJ	<0.0056	<0.011	0.00088	0.0035 J J	<0.0002 U
	P66-ROX-101013	10/10/2013		33.66	NE	<0.0056	<0.0056	<0.0056	<0.011	0.000052 J	0.0013	<0.0056		<0.00011	<0.0056	0.0571	0.0218	<0.011	0.0034 J	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.0005	<0.0056	0.00009 J
	P66-ROX-110713	11/7/2013		33.66	NE																					
	P66-ROX-012914	1/29/2014		36.39	NE	<0.0053	<0.0053	<0.0053	<0.011	0.000065 J	0.0016	<0.0053		0.000041 J	<0.0053	0.0701	0.0284	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00077	<0.0053	0.000099 J
	P66-ROX-041114	4/11/2014		37.10	NE	<0.0058	<0.00088 U	<0.0058	<0.012	<0.00012	0.0013	<0.0058		<0.00012	<0.0058	0.0649	0.023	<0.012	<0.012	<0.012	<0.0058	<0.0058	<0.0058	<0.012	0.00049	<0.0058	0.000049 J
	P66-ROX-070714	7/7/2014		35.60	NE	<0.0056	0.0003 J	<0.0056	<0.011	<0.00011	0.00078	<0.0056		<0.00011	<0.0056	0.0445	0.006	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.00041 J	<0.0056	<0.00011
	P66-ROX-101414	10/14/2014		34.48	NE	<0.0055	<0.00066 U	<0.0055	<0.011	<0.00011	0.0011	<0.0055		<0.00011	<0.0055	0.0595	0.0075	<0.011	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	0.00064	<0.0055	0.000043 J
	P66-ROX-011615	1/16/2015		36.62	NE	<0.0053	<0.00022 U	<0.0053	<0.011	0.000047 J J	0.0014	<0.0053		<0.00011	<0.0053	0.0739	0.0178	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00072 J	<0.0053	0.000077 J J
	P66-ROX-011615-DUP	1/16/2015		36.62	NE	<0.0054	<0.0054	<0.0054	<0.011	0.001 J	0.0015	<0.0054		0.00014	<0.0054	0.0682	0.0165	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.0016 J	<0.0054	0.00086 J
	P66-ROX-041415	4/14/2015	34.72 - 59.72	38.27	NE	<0.0054	<0.0054	<0.0054	<0.011	0.00005 J	0.0013	<0.0054		<0.00011	<0.0054	0.0665	0.02	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00062	<0.0054	0.000053 J
	P66-ROX-041415-DUP	4/14/2015		38.27	NE	<0.0053	<0.0053	<0.0053	<0.011	0.000038 J	0.0013	<0.0053		<0.00011	<0.0053	0.0627	0.0187	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00059	<0.0053	0.000041 J
P-74	P74-ROX-080612	8/6/2012	44.43 - 69.43	40.71	NE	<0.005	<0.00082 U	<0.005	<0.01	<0.0001	0.00021	<0.005		<0.0001	<0.005	0.009	0.0103	0.0014 J	0.001 J	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00012 U	0.0158	<0.0001
	P74-ROX-110112	11/1/2012		41.72	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.0001	0.0003	<0.0052		<0.0001	<0.0052	0.0123	0.0136	0.0054 J	0.002 J	<0.01	<0.0052	<0.0052 UJ	<0.0052	<0.01	0.00013	0.0307 J	<0.0001
	P74-ROX-011713	1/17/2013		42.65	NE	<0.0051	<0.0051	<0.0051	<0.01	0.000038 J	0.00038	<0.0051		<0.0001	<0.0051	0.0156	0.0198	<0.01	0.001 J	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.00023	0.0298	0.000048 J
	P74-ROX-041113	4/11/2013		42.83	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0046 U	<0.0001
	P74-ROX-071513	7/15/2013		40.11	NE	<0.0054	<0.0054	<0.0054	<0.011	0.00014	0.00011	<0.0054		<0.00011	<0.0054	0.0019	0.00019 J	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.00008 U	0.008	0.000074 J
	P74-ROX-101413	10/14/2013		41.72	NE	<0.0054	0.00047 J	<0.0054	<0.011	0.00015	0.00025	<0.0054		<0.00011	<0.0054	0.0073	0.0079	<0.011	<0.011	<0.011	<0.0054	<0.0054 UJ	<0.0054	<0.011	0.000079	0.0125	0.000057 J
	P74-ROX-012414	1/24/2014		43.35	NE	<0.0051	0.00048 J	<0.0051	<0.01	0.000088 J	0.00028	<0.0051		<0.0001	<0.0051	0.0088	0.0106	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.00014 U	0.0278	0.000049 J
	P74-ROX-041514	4/15/2014		44.74	NE	<0.0059	<0.0014 U	<0.0059	<0.012	<0.00012	<0.00012	<0.0059		<0.00012	<0.0059	0.0017 J	0.0022 J	<0.012	<0.012	<0.012	<0.0059	<0.0059 UJ	<0.0059	<0.012	0.000054 JB J	<0.0059 UJ	<0.00012
	P74-ROX-070814	7/8/2014		43.02	NE	<0.0057	0.00039 J	<0.0057	<0.011	<0.00011	0.00011	<0.0057		<0.00011	<0.0057	0.0034	0.003	<0.011	<0.011	<0.011	<0.0057	<0.0057	<0.0057	<0.011	0.000054 J	<0.0057	<0.00011
	P74-ROX-101414	10/14/2014		41.48	NE	<0.005	<0.0019 U	<0.005	<0.01	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.002	<0.002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	P74-ROX-011915	1/19/2015		43.47	NE	<0.0053	<0.0053	<0.0053	<0.011	0.000053 J	0.00023	<0.0053		<0.00011	<0.0053	0.0077	0.0107	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00015 B	0.0169	0.000038 J
	P74-ROX-041515	4/15/2015	44.43 - 69.43	44.61	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.0021	<0.0021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						SVOCs																				
						Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	2,6-Dinitrotoluene	Fluoranthene	Fluorene	Hexachlorobenzene	Indene	Indeno(1,2,3-cd)pyrene	Isophorone (3,5,5-trimethyl-2-cyclohexene-1-one)	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	3-Nitroaniline	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
					Screening Values (mg/L)		0.7 [1]	0.14 [2]	0.00031 [2]	0.28 [1]	0.28 [1]	0.00006 [2]		0.00043 [1]	1.4 [2]	0.49 [3]	0.028 [1]	0.35 [1]	0.35 [3]		0.014 [1]	0.0006 [3]	0.0032 [2]	0.001 [1]	0.21 [3]	0.1 [1]	0.21 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																				
P-93A	P93A-ROX-080912	8/9/2012	48.17 - 63.17	43.66	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	0.00021	<0.0054		<0.00011	<0.0054	0.0097	0.013	<0.011	0.00096 J	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00025	0.208	<0.00011
	P93A-ROX-110712	11/7/2012		45.00	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.0001	0.00029	<0.0052		<0.0001	<0.0052	0.015	0.0194	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.00028 B	0.19	<0.0001
	P93A-ROX-110712-DUP	11/7/2012		45.00	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.0001	0.00037	<0.0052		<0.0001	<0.0052	0.016	0.0206	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.00034 B	0.217	<0.0001
	P93A-ROX-012313	1/23/2013		45.89	NE	<0.0052 UJ	<0.0052	<0.0052	<0.01	<0.0001	0.00021	<0.0052		<0.0001	<0.0052	0.0096	0.0093	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.00024	0.168	<0.0001
	P93A-ROX-012313-DUP	1/23/2013		45.89	NE	<0.0052 UJ	<0.0052	<0.0052	<0.01	<0.0001	0.00019	<0.0052		<0.0001	<0.0052	0.0094	0.009	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.00023	0.165	<0.0001
	P93A-ROX-041113	4/11/2013		46.29	NE	<0.005	<0.005	<0.005	<0.01	0.000046 J	0.0003	<0.005		<0.0001	<0.005	0.0146 J	0.0098	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	0.00035	0.2	0.00004 J
	P93A-ROX-041113-DUP	4/11/2013		46.29	NE	<0.005	<0.005	<0.005	<0.01	<0.0001	0.00025	<0.005		<0.0001	<0.005	0.0146 J	0.0096	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	0.00024	0.179	<0.0001
	P93A-ROX-071813	7/18/2013		43.25	NE	<0.0056	<0.0056	<0.0056	<0.011	<0.00011	0.00023	<0.0056		<0.00011	<0.0056	0.0089	0.0062	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.00021	0.107	<0.00011
	P93A-ROX-101113	10/11/2013		44.18	NE	<0.005	<0.005	<0.005	<0.01	<0.0001	0.00028	<0.005		<0.0001	<0.005	0.0128	0.0085	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	0.00013	0.0837 J	<0.0001
	P93A-ROX-012914	1/29/2014		46.53	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	0.00032	<0.0054		<0.00011	<0.0054	0.0133	0.0072	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00022 B	0.105	<0.00011
	P93A-ROX-041714	4/17/2014		47.41	NE	<0.0056	<0.0012 U	<0.0056	<0.011	<0.00011	0.00027	<0.0056		<0.00011	<0.0056	0.0086	0.0048	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.00018 B J	0.0735	<0.00011
	P93A-ROX-071814	7/18/2014		45.70	NE	<0.0057	<0.00077 U	<0.0057	<0.011	<0.00011	0.00024	<0.0057		<0.00011	<0.0057	0.0084	0.0053	<0.011	<0.011	<0.011	0.0059	<0.0057	<0.0057	<0.011	0.00017 B	0.0355	<0.00011
	P93A-ROX-071814-DUP	7/18/2014		45.70	NE	<0.0057	<0.00041 U	<0.0057	<0.011	<0.00011	0.00025	<0.0057		<0.00011	<0.0057	0.0095	0.0062	<0.011	<0.011	<0.011	0.0052 J	<0.0057	<0.0057	<0.011	0.00017 B	0.0396	<0.00011
	P93A-ROX-101514	10/15/2014		45.06	NE	<0.0052	0.00024 J	<0.0052	<0.01	<0.0001	0.00037	<0.0052		<0.0001	<0.0052	0.0114	0.0095	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.0003	0.0471	<0.0001
	P93A-ROX-101514-DUP	10/15/2014		45.06	NE	<0.0054 UJ	0.00046 J J	<0.0054 UJ	<0.011 UJ	<0.00011 UJ	0.00039 J	<0.0054 UJ		<0.00011 UJ	<0.0054 UJ	0.0122 J	0.0101 J	<0.011 UJ	<0.011 UJ	<0.011 UJ	0.0011 J J	<0.0054 UJ	<0.0054 UJ	<0.011 UJ	0.0003 J	0.05 J	<0.00011 UJ
	P93A-ROX-012715	1/27/2015	43.07 - 53.07	46.05	NE	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005		<0.0002	<0.005	0.008	0.0038	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.025	0.00026 J	0.09	<0.001
	P93A-ROX-041715	4/17/2015	43.07 - 53.07	47.02	NE	<0.0053	<0.0053	<0.0053	<0.011	0.000017 J	0.00021	<0.0053		<0.00011	<0.0053	0.0061	0.0028	<0.011	0.00063 J	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00018	0.0251	0.000026 J
P-93B	P93B-ROX-080912	8/9/2012	74.60 - 76.60	43.69	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	0.178	<0.00011
	P93B-ROX-110712	11/7/2012		45.05	NE	<0.0051	<0.0051	<0.0051	<0.01	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	0.00026	0.00045 B	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	0.13	<0.0001
	P93B-ROX-110712-DUP	11/7/2012		45.05	NE	<0.005	<0.005	<0.005	<0.01	<0.0001	<0.0001	<0.005		<0.0001	<0.005	0.0003	0.0005 B	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	0.114	<0.0001
	P93B-ROX-012313	1/23/2013		45.89	NE	0.00024 J J	0.003 J	<0.0053	<0.011	0.00013	0.00012	0.00058 J		0.00012	<0.0053	<0.00021	0.00012 J	<0.011	0.0014 J	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00016	0.176	0.00013
	P93B-ROX-041113	4/11/2013		46.32	NE	<0.0051	0.0013 J	<0.0051	<0.01	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	0.122	<0.0001
	P93B-ROX-071813	7/18/2013		43.30	NE	<0.0056	0.0005 J	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.000034 J	0.151	<0.00011
	P93B-ROX-101613	10/16/2013		44.43	NE	<0.005	<0.005	<0.005	<0.01	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	0.069	<0.0001
	P93B-ROX-101613-DUP	10/16/2013		44.43	NE	<0.0051	<0.0051	<0.0051	<0.01	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	0.082	<0.0001
	P93B-ROX-012814	1/28/2014		46.58	NE	<0.0055	0.00045 J	<0.0055	<0.011	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	<0.000022 U	0.074	<0.00011
	P93B-ROX-012814-DUP	1/28/2014		46.58	NE	<0.0051	0.00048 J	<0.0051	<0.01	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000024 U	0.0927	<0.0001
	P93B-ROX-041714	4/17/2014		47.46	NE	<0.0051	<0.0024 U	<0.0051	<0.01	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	0.0719	<0.0001
	P93B-ROX-041714-DUP	4/17/2014		47.46	NE	<0.0053	<0.00098 U	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	0.0861	<0.00011
	P93B-ROX-071714	7/17/2014		45.75	NE	<0.0052	<0.00046 U	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000023 U	<0.0052 UJ	<0.0001
	P93B-ROX-101514	10/15/2014		45.15	NE	<0.0056	0.00024 J	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.0022	<0.0022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000056	0.128	<0.00011
	P93B-ROX-012315	1/23/2015		47.24	NE	<0.0053	0.00025 J	<0.0053	<0.011	<0.00011	<0.000017 U	<0.0053		<0.00011	<0.0053	0.00002 J	<0.0021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	0.0979	<0.00011
	P93B-ROX-012315-DUP	1/23/2015		47.24	NE	<0.0053	0.00031 J	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.000023 J	0.000041 J	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000024 U	0.123	<0.00011
	P93B-ROX-021915	2/19/2015		47.24	NE																						
	P93B-ROX-041615	4/16/2015	74.60 - 76.60	48.42	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.000034 JB J	0.00008 JB J	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	0.104 J	<0.00011
	P93B-ROX-041615-DUP	4/16/2015		48.42	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	0.00002 J	<0.0053		<0.00011	<0.0053	0.000028 JB J	0.000048 JB J	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	0.08 J	<0.00011

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						SVOCs																				
						Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	2,6-Dinitrotoluene	Fluoranthene	Fluorene	Hexachlorobenzene	Indene	Indeno(1,2,3-cd)pyrene	Isophorone (3,5,5-trimethyl-2-cyclohexene-1-one)	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	3-Nitroaniline	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
			Screening Values (mg/L)				0.7 [1]	0.14 [2]	0.00031 [2]	0.28 [1]	0.28 [1]	0.00006 [2]		0.00043 [1]	1.4 [2]	0.49 [3]	0.028 [1]	0.35 [1]	0.35 [3]		0.014 [1]	0.0006 [3]	0.0032 [2]	0.001 [1]	0.21 [3]	0.1 [1]	0.21 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																				
P-93C	P93C-ROX-080912	8/9/2012	94.26 - 96.26	43.57	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
	P93C-ROX-110812	11/8/2012		45.12	NE	<0.005	<0.005	<0.005	<0.01	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	P93C-ROX-012313	1/23/2013		45.78	NE	<0.0055 UJ	0.0025 J	<0.0055	<0.011	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	<0.000055	<0.0055	<0.00011
	P93C-ROX-041213	4/12/2013		46.21	NE	<0.005 UJ	<0.005	<0.005	<0.01	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005 UJ	<0.005	<0.01	<0.00005	<0.005	<0.0001
	P93C-ROX-071813	7/18/2013		43.31	NE	<0.0056	<0.0056	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.000026 J	0.0352	<0.00011
	P93C-ROX-080813	8/8/2013		43.31	NE																					
	P93C-ROX-101613	10/16/2013		44.31	NE	<0.0051	<0.0051	<0.0051	<0.01	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	0.005 J	<0.0001
	P93C-ROX-012414	1/24/2014		46.44	NE	<0.0051	0.00051 J	<0.0051	<0.01	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001
	P93C-ROX-041714	4/17/2014		47.34	NE	<0.0052	<0.00048 U	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052 UJ	<0.0001
	P93C-ROX-071714	7/17/2014		45.61	NE	<0.0052	<0.00035 U	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000024 U	<0.0087 UJ	<0.0001
	P93C-ROX-101514	10/15/2014		44.99	NE	<0.0056	<0.0056	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.0022	<0.0022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000056	<0.0056	<0.00011
	P93C-ROX-011915	1/19/2015	92.47 - 97.47	46.77	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.000033 U	<0.000042 U	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000033 U	0.0309	<0.00011
	P93C-ROX-021915	2/19/2015		46.77	NE																					
	P93C-ROX-041615	4/16/2015	92.47 - 97.47	48.22	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	0.00006 JB J	0.000084 JB J	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.000024 J	0.0215	<0.00011
P-93D	P93D-ROX-080812	8/8/2012	125.75 - 127.75	43.71	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	0.0004	<0.00042 U	0.00076 J	0.0011 J	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.000054	<0.0052	<0.0001
	P93D-ROX-110812	11/8/2012		NM	NE	<0.0055	<0.0055	<0.0055	<0.011	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	<0.000055	<0.0055	<0.00011
	P93D-ROX-012213	1/22/2013		44.21	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.00027	0.00036	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000042 J	<0.0053	<0.00011
	P93D-ROX-041113	4/11/2013		46.37	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0087 U	<0.0001
	P93D-ROX-071213	7/12/2013		43.51	NE	<0.0056 UJ	0.00045 J	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.00022	<0.000059 U	<0.011	<0.011	<0.011	<0.0056	<0.0056 UJ	<0.0056	<0.011	<0.000056	<0.0056 UJ	<0.00011
	P93D-ROX-101113	10/11/2013		44.24	NE	<0.005	<0.005	<0.005	<0.01	0.000087 J	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01 UJ	<0.01 UJ	<0.01	<0.005	<0.005	<0.005	<0.01 UJ	<0.00005	<0.005 UJ	0.000084 J
	P93D-ROX-013114	1/31/2014		46.62	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000024 U	<0.0053	<0.00011
	P93D-ROX-041414	4/14/2014		47.54	NE	<0.0053	0.00036 J	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.00003 U	<0.0053	<0.00011
	P93D-ROX-071714	7/17/2014		45.78	NE	<0.0052	<0.00025 U	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000022 U	<0.0052 UJ	<0.0001
	P93D-ROX-101514	10/15/2014		45.14	NE	<0.0054	0.00031 J	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.0022	<0.0022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.000019 J	0.0458	<0.00011
	P93D-ROX-110414	11/4/2014		45.14	NE																					
	P93D-ROX-012315	1/23/2015		42.28	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.0021	0.000019 J	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	0.044	<0.00011
	P93D-ROX-021915	2/19/2015		42.28	NE																					
	P93D-ROX-042015	4/20/2015	125.75 - 127.75	48.52	NE	<0.0052	<0.0052	<0.0052	<0.01	0.000024 J	0.00002 J	<0.0052		<0.0001	<0.0052	0.00012 J	0.00016 J	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.000017 J	0.0395	0.000021 J
P-114	P114-ROX-080912	8/9/2012	32.67 - 52.67	29.13	NE	<0.005	<0.005	<0.005	<0.01	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	P114-ROX-110912	11/9/2012		30.90	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
	P114-ROX-012313	1/23/2013		30.22	NE	<0.0053 UJ	0.0024 J	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	P114-ROX-041513	4/15/2013		31.80	NE	<0.0052	0.00047 J	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
	P114-ROX-071813	7/18/2013		27.22	NE	<0.0055	<0.0055	<0.0055	<0.011	<0.00011	<0.00011	<0.0055		0.000071 J	<0.0055	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	0.000059	<0.0055	<0.00011
	P114-ROX-071813-DUP	7/18/2013		27.22	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000052 J	<0.0053	<0.00011
	P114-ROX-101713	10/17/2013		29.43	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	P114-ROX-012814	1/28/2014		32.11	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00015 B	<0.0054	<0.00011
	P114-ROX-042114	4/21/2014		32.22	NE	<0.0051	0.0026 JB	<0.0051	<0.01	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01 UJ	<0.000051	<0.0051	<0.0001
	P114-ROX-071814	7/18/2014		30.87	NE	<0.0051	<0.00028 U	<0.0051	<0.01	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.00012 U	<0.0051	<0.0001
	P114-ROX-101714	10/17/2014		29.43	NE	<0.0057	<0.0057	<0.0057	<0.011	<0.00011	<0.00011	<0.0057		<0.00011	<0.0057	<0.0023	<0.0023	<0.011	<0.011	<0.011	<0.0057	<0.0057	<0.0057	<0.011	<0.000057	<0.0057	<0.00011
	P114-ROX-012115	1/21/2015		31.53	NE	<0.0056	0.00091 J	<0.0056	<0.011	<0.00002 U	0.000048 J	<0.0056		<0.00011	<0.0056	<0.000092 U	<0.00012 U	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000046 U	<0.0056	<0.000042 U
	P114-ROX-041715	4/17/2015	32.67 - 52.67	NM	NE	<0.0053	0.00031 J	<0.0053	<0.011	0.000023 J	<0.00011	<0.0053		<0.00011	<0.0053	0.000025 JB J	0.000029 JB J	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000039 J	<0.0053	0.000027 J

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						SVOCs																				
						Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	2,6-Dinitrotoluene	Fluoranthene	Fluorene	Hexachlorobenzene	Indene	Indeno(1,2,3-cd)pyrene	Isophorone (3,5,5-trimethyl-2-cyclohexene-1-one)	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	3-Nitroaniline	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
					Screening Values (mg/L)		0.7 [1]	0.14 [2]	0.00031 [2]	0.28 [1]	0.28 [1]	0.00006 [2]		0.00043 [1]	1.4 [2]	0.49 [3]	0.028 [1]	0.35 [1]	0.35 [3]		0.014 [1]	0.0006 [3]	0.0032 [2]	0.001 [1]	0.21 [3]	0.1 [1]	0.21 [1]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Analytical Results (mg/L)																				
ROST-3-MW (ROST-3-PZ)	ROST3PZ-ROX-080712	8/7/2012	40.00 - 50.00	39.00	NE	<0.0054	0.0049 J	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	0.00031	0.00038 J	<0.011	0.0056 J	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	ROST3PZ-ROX-110112	11/1/2012		40.82	NE	<0.0053	0.0017 J	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.00028	0.00031	<0.011	0.0019 J	<0.011	<0.0053	<0.0053 UJ	<0.0053	<0.011	<0.000053	<0.0053 UJ	<0.00011
	ROST3MW-ROX-012313	1/23/2013	37.81 - 47.81	41.50	NE	<0.005 UJ	<0.005	<0.005	<0.01	<0.0001	0.00031	<0.005		<0.0001	<0.005	0.0061	0.0087	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	0.00068	<0.005	<0.0001
	ROST3MW-ROX-040513	4/5/2013		42.24	NE	<0.0054	0.00044 J	<0.0054	<0.011	<0.00011	0.00017	<0.0054		<0.00011	<0.0054	0.0029	0.0039	<0.011	<0.011	<0.011	<0.0054	<0.0054 UJ	<0.0054	<0.011	0.00055	<0.0054 UJ	<0.00011
	ROST3MW-ROX-071113	7/11/2013		39.50	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	0.00043	<0.0054		<0.00011	<0.0054	0.0105 J	0.0142	<0.011 UJ	<0.011 UJ	<0.011 UJ	<0.0054	<0.0054	<0.0054	<0.011 UJ	0.00073	<0.0054 UJ	<0.000044 U
	ROST3-MW-ROX-100913	10/9/2013		40.16	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	0.00012	<0.0054		<0.00011	<0.0054	0.0024	0.0026	<0.011 UJ	<0.011 UJ	<0.011	<0.0054	<0.0054	<0.0054	<0.011 UJ	0.00014	<0.0054 UJ	0.000044 J
	ROST3MW-ROX-011714	1/17/2014		42.20	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.0011	0.00099	<0.011 UJ	<0.011 UJ	<0.011	<0.0053	<0.0053	<0.0053	<0.011 UJ	0.0002	<0.0053 UJ	<0.00011
	ROST3MW-ROX-041014	4/10/2014		42.80	NE	<0.006	<0.00076 U	<0.006	<0.012	<0.00012	<0.00012	<0.006		<0.00012	<0.006	0.00075	0.0008	<0.012	<0.012	<0.012	<0.006	<0.006	<0.006	<0.012	0.0001	<0.006	<0.00012
	ROST3MW-ROX-071414	7/14/2014		41.88	NE	<0.0054	<0.0004 U	<0.0054	<0.011	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	0.00092	0.00097	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.00016 U	<0.0054	<0.00011
	ROST3MW-ROX-100914	10/9/2014		41.31	NE	<0.0056	<0.00026 U	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	0.00075 J	0.00057 J	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.00014 B	<0.0056	<0.00011
	ROST3MW-ROX-011515	1/15/2015		41.83	NE	<0.0057	0.00045 J J	<0.0057	<0.011	0.000022 J J	0.000035 J J	<0.0057		<0.00011	<0.0057	0.001 J	0.00024 J	<0.011	<0.011	<0.011	<0.0057	<0.0057	<0.0057	<0.011	0.0001 J	<0.0057	0.000033 J J
	ROST3MW-ROX-041315	4/13/2015	37.81 - 47.81	43.43	NE	<0.0052	<0.0052	<0.0052	<0.01	<0.0001	0.00003 J	<0.0052		<0.0001	<0.0052	0.001 J	0.0005 J	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.00011	<0.0052	0.000019 J
ROST-4-PZ(C)	ROST4PZ-C-ROX-072512	7/25/2012	34.95 - 44.95	39.10	NE	<0.0053	0.0015 J	<0.0053	<0.011	<0.000041 U	0.00032 B	<0.0053		<0.00011	<0.0053	0.0102	0.0136	<0.011	0.00098 J	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.0014	0.0023 J	<0.000081 U
	ROST4PZC-ROX-102912	10/29/2012		40.75	NE	<0.0052	0.0018 J	<0.0052	<0.01	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	0.0004	0.00041	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.0002	<0.0052	<0.0001
	ROST4PZ(C)-ROX-011113	1/11/2013		41.42	NE	<0.0053 UJ	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	0.000064 J	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00012	<0.0053	<0.00011
	ROST4PZC-ROX-041013	4/10/2013		42.27	NE	<0.0055	<0.0055	<0.0055	<0.011	<0.00011	0.000069 J	<0.0055		<0.00011	<0.0055	0.00062	0.000078 J	<0.011	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	0.00018	<0.0055 U	<0.00011
	ROST4PZC-ROX-071113	7/11/2013		40.18	NE	<0.0054	<0.0054	<0.0054	<0.011	0.000099 J	0.00027	<0.0054		<0.00011	<0.0054	0.0027 J	0.0021	<0.011	<0.011	<0.011 UJ	<0.0054	<0.0054	<0.0054	<0.011	0.00052	0.00057 J J	<0.00009 U
	ROST4PZC-ROX-100913	10/9/2013		39.91	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.002	0.00095	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.0002	<0.0053	<0.00011
	ROST4PZC-ROX-011714	1/17/2014		41.92	NE	<0.0059	<0.0059	<0.0059	<0.012	<0.00012	<0.00012	<0.0059		<0.00012	<0.0059	0.00019 J	<0.00024	<0.01 UJ	<0.01 UJ	<0.012	<0.0059	<0.0059	<0.0059	<0.01 UJ	0.000077	<0.005 UJ	<0.00012
	ROST4PZC-ROX-041014	4/10/2014		42.05	NE	<0.0056	<0.00038 U	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	0.000065 J	<0.00022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.000051 J	<0.0056	<0.00011
	ROST4C-ROX-071114	7/10/2014		42.22	NE	<0.0053	<0.00031 U	<0.0053	<0.011	<0.0001	<0.0001	<0.0053		<0.0001	<0.0053	0.00021	<0.0002	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.00012 U	<0.0053	<0.0001
	ROST4PZC-ROX-100914	10/9/2014		41.30	NE	<0.0056	<0.00032 U	<0.0056	<0.011	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.0022	<0.0022	<0.011	0.00071 J	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000088 U	0.00088 J	<0.00011
	ROST4PZC-ROX-011515	1/15/2015		41.65	NE	<0.0057	0.0003 J J	<0.0057	<0.011	<0.00011	<0.00011	<0.0057		<0.00011	<0.0057	0.000038 J	0.000018 J J	<0.011	<0.011	<0.011	<0.0057	<0.0057	<0.0057	<0.011	0.00004 J J	<0.0057	0.000022 J J
	ROST4PZC-ROX-041315	4/13/2015	34.95 - 44.95	43.00	NE	<0.0051	<0.0051	<0.0051	<0.01	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	0.0012 J	0.00038 JB	<0.01	0.0011 J	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.000075	<0.0051	0.000022 J
T-12	T12-ROX-080212	8/2/2012	46.46 - 72.46	41.92	NE	<0.0054	<0.0054	<0.0054	<0.011	0.000046 J	0.00029	<0.0054		<0.00011	<0.0054	0.0199	0.0294	0.0021 J	0.0027 J	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00089	0.042	0.000062 J
	T12-ROX-110512	11/5/2012		43.91	NE	<0.005	<0.005	<0.005	<0.01	<0.0001	0.00031	<0.005		<0.0001	<0.005	0.0232	0.0354	0.00096 J	0.0015 J	<0.01	<0.005	<0.005	<0.005	<0.01	0.00083	<0.005 UJ	0.000048 J
	T12-ROX-011813	1/18/2013		44.50	NE	<0.0053 UJ	<0.0053	<0.0053	<0.011	<0.00011	0.00046	<0.0053		<0.00011	<0.0053	0.0241	0.0322	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.0011	0.0265	0.000067 J
	T12-ROX-041513	4/15/2013		44.99	NE	<0.0051	<0.0051	<0.0051	<0.01	<0.0001	0.00037	<0.0051		<0.0001	<0.0051	0.0289	0.0444	0.0047 J	0.0042 J	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.0011	0.0149	0.000063 J
	T12-ROX-071613	7/16/2013		42.33	NE	<0.0054	<0.0054	<0.0054	<0.011	0.000044 J	0.00034	<0.0054		<0.00011	<0.0054	0.0236	0.0331	0.0029 J J	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.0011	0.0514 J	<0.00009 U
	T12-ROX-101513	10/15/2013		43.73	NE	<0.0054	<0.0054	<0.0054	<0.011	<0.00011	0.00029	<0.0054		<0.00011	<0.0054	0.0199	0.0319	0.0018 J	0.0032 J	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00077	0.0083	0.00009 J
	T12-ROX-012414	1/24/2014		45.26	NE	<0.0051	0.00044 J	<0.0051	<0.01	<0.0001	0.00035	<0.0051		<0.0001	<0.0051	0.0215	0.0326	0.0022 J	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.001	0.0498	0.00006 J
	T12-ROX-041514	4/15/2014		46.72	NE	<0.0056	<0.00034 U	<0.0056	<0.011	<0.00011	0.0003	<0.0056		<0.00011	<0.0056	0.0189	0.0283	<0.011	<0.011	<0.011	<0.0056	<0.0056 UJ	<0.0056	<0.011	0.00078	0.0672 J	0.00005 J
	T12-ROX-070814	7/8/2014		45.13	NE	<0.0054	0.00038 J	<0.0054	<0.011	<0.00011	0.00022	<0.0054		<0.00011	<0.0054	0.015	0.0245	0.0092 J	0.0033 J	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00051	<0.0054	<0.00011
	T12-ROX-101714	10/17/2014		44.40	NE	<0.0056	0.00061 J	<0.0056	<0.011	<0.00011	0.00031	<0.0056		<0.00011	<0.0056	0.022	0.0369	0.003 J	0.0059 J	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.00079	0.0154	<0.00011
	T12-ROX-011915	1/19/2015		45.27	NE	<0.0053	<0.0053	<0.0053	<0.011	<0.00011	0.00032	<0.0053	0.0069 JN	<0.00011	<0.0053	0.021	0.0332	0.0055 J	0.0016 J	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00082	0.0155	0.000055 J
	T12-ROX-041515	4/15/2015	46.46 - 72.46	46.73	NE	<0.0056	0.00033 J	<0.0056	<0.011	0.000024 J	0.00032	<0.0056		<0.00011	<0.0056	0.021	0.0335 J	0.0021 J	0.0042 J	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.00086	0.0099	0.000052 J J

Notes:

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

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

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

4 Beginning in 4Q12, naphthalene was analyzed via 8260 VOC, and prior historical results were reported by PAH analysis.

5 Beginning in 4Q13, professional judgment criteria used to review common laboratory contaminants was reevaluated. Acetone, 2-butanone, and methylene chloride are only U-qualified when present in the method blank.

6 The laboratory has been requested to perform a library search in all samples for butane, hexane, isopentane, 1,2,3-trimethylbenzene, and indene, which are reported as Tentatively Identified Compounds (TICs), when identified.

LABORATORY QUALIFIERS
B = Target analyte or common lab contaminant was identified in the method blank indicating possible field or lab contamination.
D = The result is from a diluted sample.
J = The analyte was detected below the reporting limit. Result is estimated.
E = The value exceeds calibration range.
JN = Estimated value for tentatively identified compound (library search).

URS QUALIFIERS
J = The result is estimated.
UJ = Estimated non-detect.
U = Result is non-detect.

Indicates a historical exceedance of screening criteria.
Indicates a current exceedance of screening criteria.
NA — Indicates current quarter analyte result was not analyzed.
Empty cell without a value indicates previous quarter analyte result was rejected, the analyte was not analyzed, or the TIC was not identified.

Figures

The following EVS Descriptions and Assumptions apply to **Figure 6.** C Tech Development Corporation's Environmental Visualization System PRO, Version 9.89 (EVS-PRO) was used to model the estimated distribution of benzene in the groundwater.

EVS Descriptions and Assumptions:

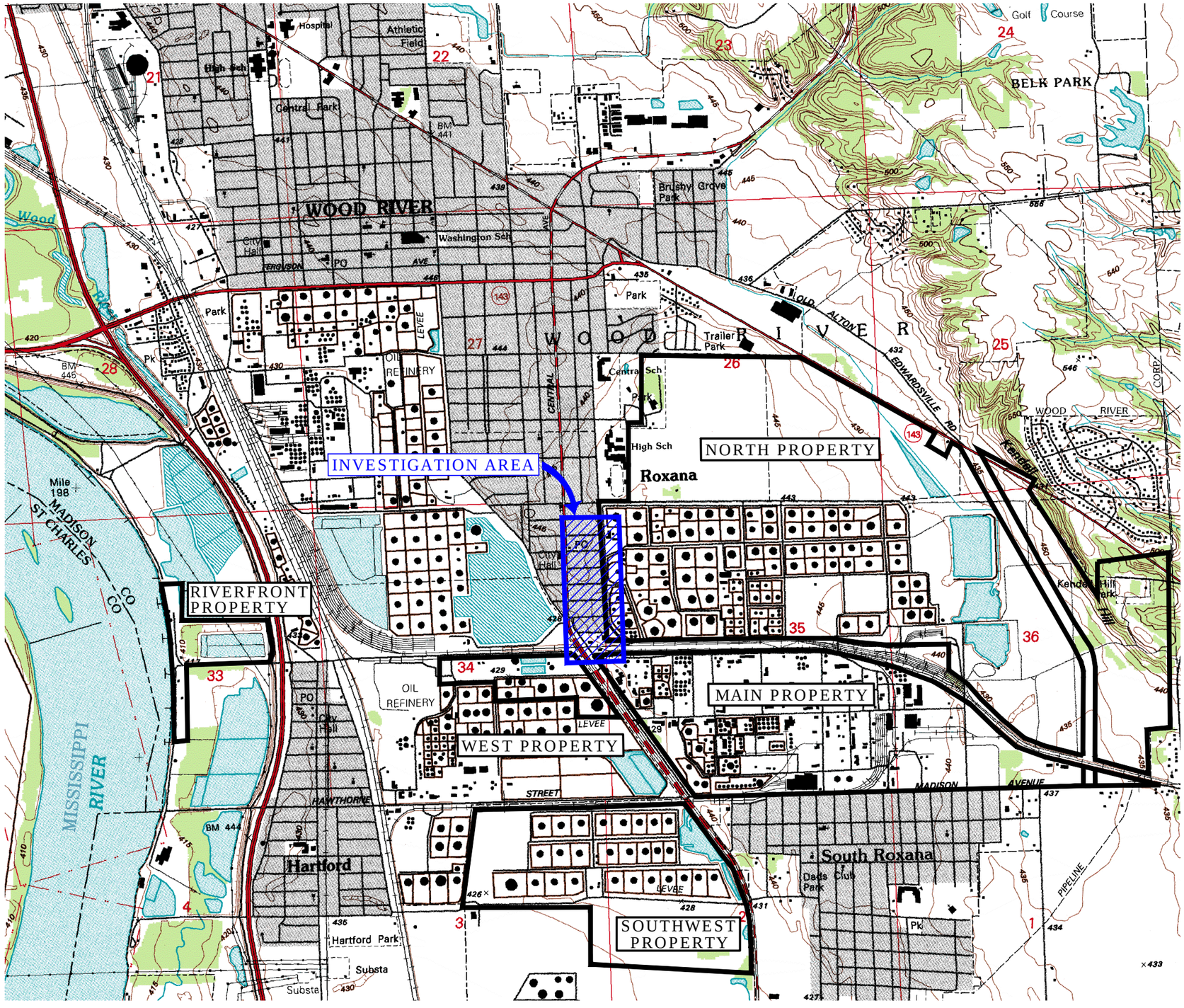
Plan View Model Output – The data input for the plan view model was not limited by depth and was modeled in two dimensions (2D). Regardless of sample depth, benzene concentrations were modeled on a flat horizontal plane.

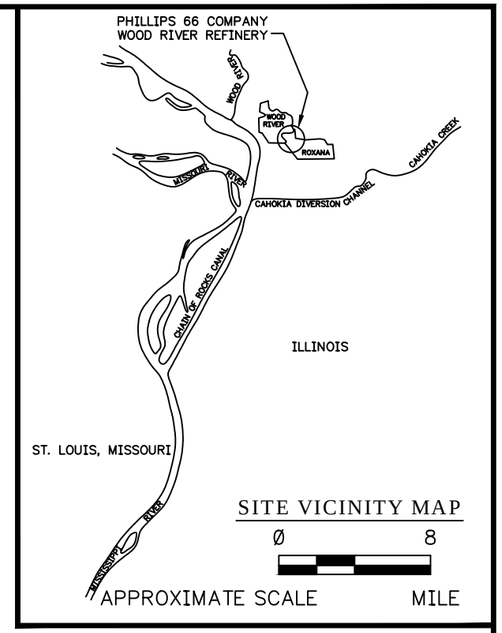
Inward Kriging / Boundary Cut-off – This method of Kriging limits the horizontal extent of data modeling to the extent of the data on the x/y plane in a convex hull.

More simply, if each soil boring 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 – Analytical concentrations from duplicate samples collected at the same location and depth were averaged.

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





LEGEND

WOOD RIVER REFINERY PROPERTY BOUNDARY

INVESTIGATION AREA

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

CONTOUR INTERVAL = 5 FT

Ø 2000

APPROXIMATE SCALE MILE

N

SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 60400249
AECOM		
DRN. BY: djd July 2015 DSGN. BY: djd CHKD. BY: b3	2Q15 Investigation Area Location Map	FIG. NO. 1

File: P:\PROJECTS\ENVIRONMENTAL\SHELL\24563720 ROX 2015\6.0_DELIVERABLES\GROUNDWATER_REPORTING\2015\DRAFT REPORT\FIGURES\FIG 1 INVESTIGATION AREA LOCATION MAP.DWG Last edited: 07/07/15 @ 3:02 p.m. @ WCC-ST.LOUIS

File: P:\PROJECTS\ENVIRONMENTAL\SHELL\21563720 ROX 2015\6.0_DELIVERABLES\GROUNDWATER_REPORTING\2Q15\DRAFT REPORT\FIGURES\FIGURE 2 GROUNDWATER MONITORING WELL SAMPLING LOCATIONS.DWG Last edited: JUL. 07, 15 @ 3:44 p.m. by: david_deguire

LEGEND

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

NOTES:

1. * INDICATES PERCHED GROUNDWATER MONITORING WELLS.
2. GROUNDWATER MONITORING WELL MW-23 WAS INSTALLED AND ADDED TO THE INTERIM GROUNDWATER MONITORING PROGRAM IN 1Q15 AND SPLIT SAMPLED WITH BP DURING 2Q15.

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

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

Ø 200
SCALE FEET
N

SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS	PROJECT NO. 60400249
AECOM	
DRN. BY:djd July 2015 DSGN. BY:lr CHKD. BY:b3	2Q15 Groundwater Monitoring Well Sampling Locations
	FIG. NO. 2

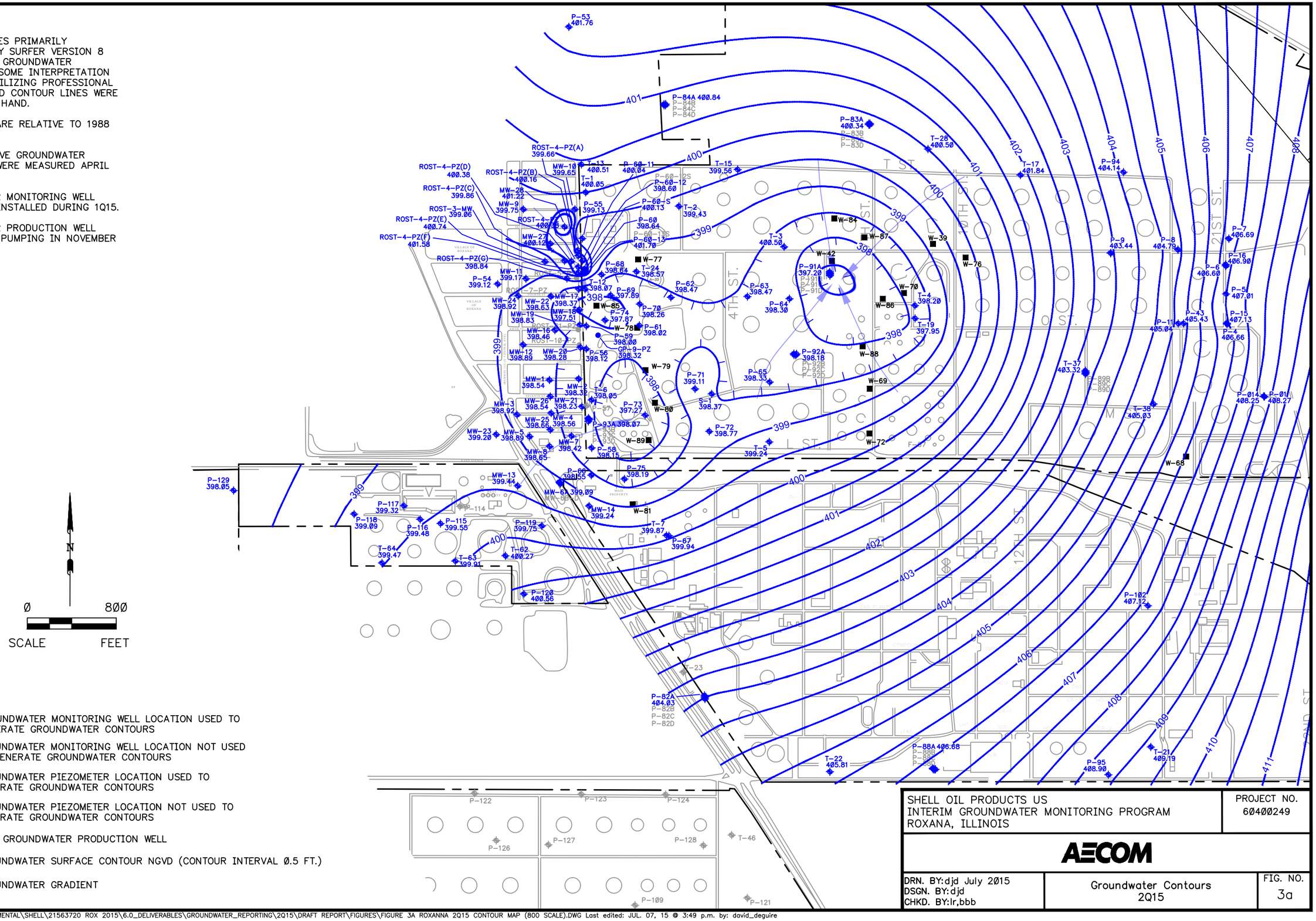
NOTES:
1. CONTOUR LINES PRIMARILY GENERATED BY SURFER VERSION 8 MODELING OF GROUNDWATER ELEVATIONS. SOME INTERPRETATION WAS DONE UTILIZING PROFESSIONAL JUDGMENT AND CONTOUR LINES WERE MODIFIED BY HAND.

2. ELEVATIONS ARE RELATIVE TO 1988 USGS DATUM.

3. COMPREHENSIVE GROUNDWATER ELEVATIONS WERE MEASURED APRIL 1–6, 2Ø15.

4. GROUNDWATER MONITORING WELL MW–23 WAS INSTALLED DURING 1Q15.

5. GROUNDWATER PRODUCTION WELL W–89 BEGAN PUMPING IN NOVEMBER 2Ø14.



SHELL OIL PRODUCTS US
INTERIM GROUNDWATER MONITORING PROGRAM
ROXANA, ILLINOIS

PROJECT NO. 6Ø4ØØ249

AECOM

DRN. BY:djd July 2Ø15
DSGN. BY:djd
CHKD. BY:lr,bbb

Groundwater Contours 2Q15

FIG. NO. 3a

File: P:\PROJECTS\ENVIRONMENTAL\SHELL\21563720 ROX 2015\6.0_DELIVERABLES\GROUNDWATER_REPORTING\2Q15\DRAFT REPORT\FIGURES\FIGURE 3A ROXANNA 2Q15 CONTOUR MAP (800 SCALE).DWG Last edited: JUL. 07, 15 @ 3:49 p.m. by: david_deguire

File: P:\PROJECTS\ENVIRONMENTAL\SHELL\21563720 ROX 2015\6.0_DELIVERABLES\GROUNDWATER_REPORTING\2Q15\DRAFT REPORT\FIGURES\FIGURE 3B ROXANNA 2Q15 CONTOUR MAP.DWG Last edited: JUL. 07, 15 @ 3:50 p.m. by: david_deguire

LEGEND

- GROUNDWATER MONITORING WELL LOCATION USED TO GENERATE GROUNDWATER CONTOURS
- GROUNDWATER MONITORING WELL LOCATION NOT USED TO GENERATE GROUNDWATER CONTOURS
- GROUNDWATER PIEZOMETER LOCATION USED TO GENERATE GROUNDWATER CONTOURS
- GROUNDWATER PIEZOMETER LOCATION NOT USED TO GENERATE GROUNDWATER CONTOURS
- WRR GROUNDWATER PRODUCTION WELL
- 402 GROUNDWATER SURFACE CONTOUR NGVD (CONTOUR INTERVAL Ø.5 FT)
- GROUNDWATER GRADIENT

NOTES:

1. CONTOUR LINES PRIMARILY GENERATED BY SURFER VERSION 8 MODELING OF GROUNDWATER ELEVATIONS. SOME INTERPRETATION WAS DONE UTILIZING PROFESSIONAL JUDGMENT AND CONTOUR LINES WERE MODIFIED BY HAND.
2. ELEVATIONS ARE RELATIVE TO 1988 USGS DATUM.
3. COMPREHENSIVE GROUNDWATER ELEVATIONS WERE MEASURED APRIL 1–6, 2Ø15.
4. GROUNDWATER MONITORING WELL MW–23 WAS INSTALLED DURING 1Q15.
5. GROUNDWATER PRODUCTION WELL W–89 BEGAN PUMPING IN NOVEMBER 2Ø14.

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

400 401 399 398

T-1 400.05
PZ-1(101) PZ-1(85)
MW-10 399.65
MW-9 399.75
MW-28 401.22
P-55 399.13
ROST-4-PZ(A) 399.66
ROST-4-PZ 400.38
MW-27 400.12
ROST-4-PZ(B) 400.16
P-60-11 400.04
ROST-4-PZ(C) 399.86
ROST-4-PZ(D) 400.38
P-60 398.64
ROST-3-MW 399.06
ROST-4-PZ(E) 400.74
P-60-S 400.13
P-60-12 398.60
P-60-12S 398.28
ROST-4-PZ(F) 401.58
P-60-13 401.70
P-60-13S
T-24 398.57
P-54 399.12
MW-11 399.17
ROST-4-PZ(G) 398.84
ROST-5-PZ
P-68 398.64
MW-17 398.37
T-12 398.07
MW-22 398.63
P-69 397.89
MW-24 398.92
ROST-7-PZ
MW-18 397.51
W–85
A–27
P-74 397.87
P-70 398.26
MW-19 398.83
P-59 398.00
P-61 398.02
W–78
ROST-21-PZ
MW-16 398.46
GP-9-PZ 398.32
MW-12 398.89
PZ-2(84) PZ-2(70.5)
ROST-10-PZ
P-56 398.12
MW-20 398.28
W–79
MW-1 398.54
MW-2 398.32
T-6 398.05
MW-26 398.54
MW-21 398.23
P-57
MW-4 398.56
MW-3 398.92
P-93A 398.07
P-93B
P-93C
P-93D
P-73 397.27
MW-25 398.66
MW-23 399.20
MW-5 398.89
MW-8 398.65
MW-7 398.42
W–89
P-58 398.15
P-75 398.19
P-66 398.55
399.09 MW-6A
MW-6B
MW-6C
MW-6D
MW-13 399.44
P-114
W–81
MW-14 399.24

SHELL OIL PRODUCTS US
INTERIM GROUNDWATER MONITORING PROGRAM
ROXANA, ILLINOIS

PROJECT NO. 60400249

AECOM

DRN. BY:djd July 2Ø15
DSGN. BY:lr
CHKD. BY:bbb

Groundwater Contours 2Q15– West Fenceline

FIG. NO. 3b

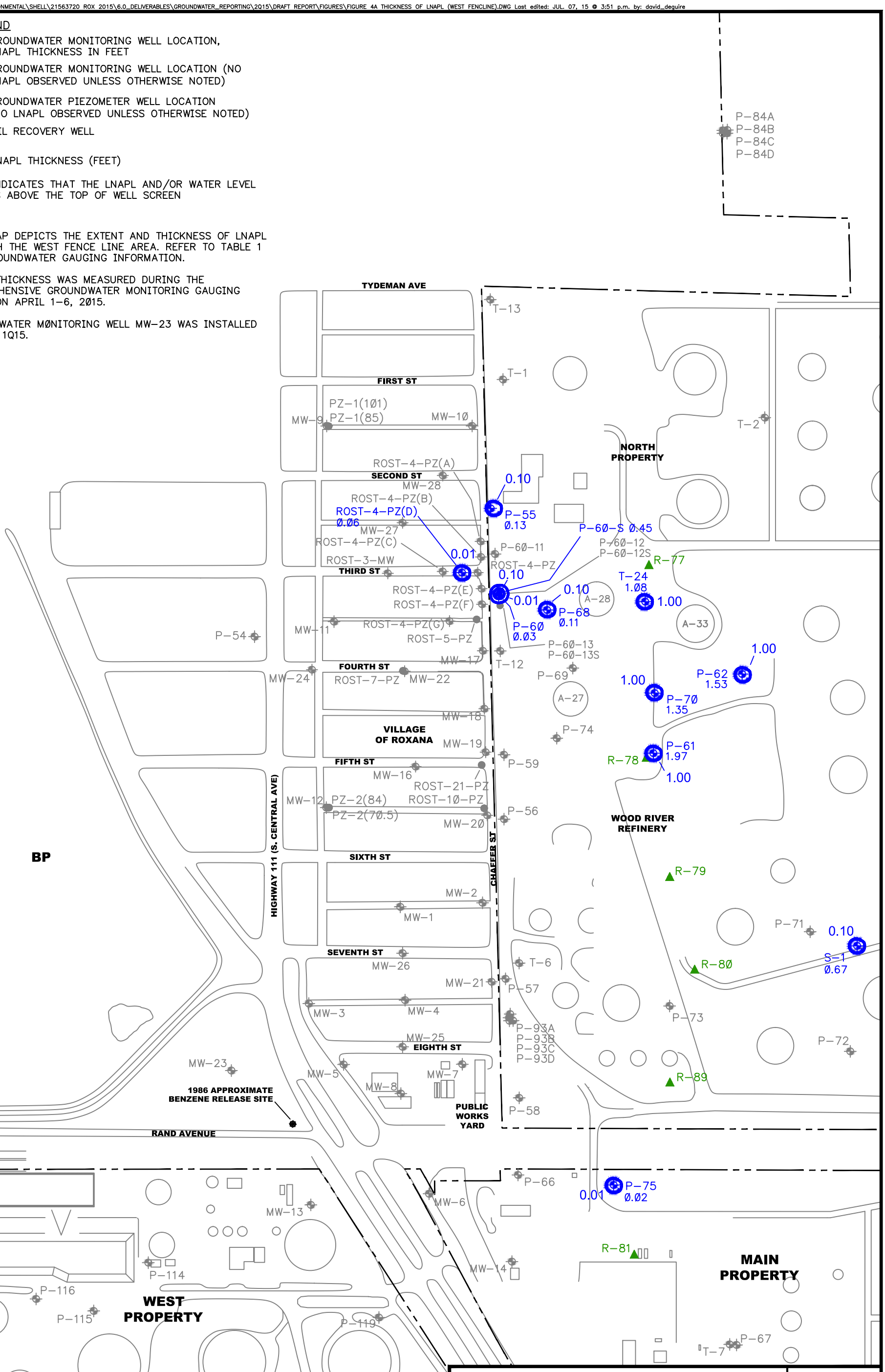
Ø 200
SCALE FEET
GRID NORTH

File: P:\PROJECTS\ENVIRONMENTAL\SHELL\21563720 ROX 2015\6.0_DELIVERABLES\GROUNDWATER_REPORTING\2Q15\DRAFT REPORT\FIGURES\FIGURE 4A THICKNESS OF LNAPL (WEST FENCLINE).DWG Last edited: JUL. 07, 15 @ 3:51 p.m. by: david_deguire

LEGEND

- GROUNDWATER MONITORING WELL LOCATION, LNAPL THICKNESS IN FEET
- GROUNDWATER MONITORING WELL LOCATION (NO LNAPL OBSERVED UNLESS OTHERWISE NOTED)
- GROUNDWATER PIEZOMETER WELL LOCATION (NO LNAPL OBSERVED UNLESS OTHERWISE NOTED)
- OIL RECOVERY 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 EXTENT AND THICKNESS OF LNAPL BENEATH THE WEST FENCE LINE AREA. REFER TO TABLE 1 FOR GROUNDWATER GAUGING INFORMATION.
2. LNAPL THICKNESS WAS MEASURED DURING THE COMPREHENSIVE GROUNDWATER MONITORING GAUGING EVENT ON APRIL 1–6, 2015.
3. GROUNDWATER MONITORING WELL MW–23 WAS INSTALLED DURING 1Q15.



SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS	PROJECT NO. 6Ø4ØØ249
AECOM	
DRN. BY: djd July 2015 DSGN. BY: lr CHKD. BY: bbb	2Q15 Thickness of LNAPL – West Fenceline
	FIG. NO. 4a

LEGEND

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

* INDICATES THAT THE LNAPL AND/OR WATER LEVEL IS ABOVE THE TOP OF WELL SCREEN

NOTES:
1. THIS MAP DEPICTS THE EXTENT AND THICKNESS OF LNAPL BENEATH THE WRR AREA. REFER TO TABLE 1 FOR GROUNDWATER GAUGING INFORMATION.
2. LNAPL THICKNESS WAS MEASURED DURING A COMPREHENSIVE GROUNDWATER MONITORING GAUGING EVENT ON APRIL 1–6, 2Ø15.
3. GROUNDWATER MONITORING WELL MW–23 WAS INSTALLED DURING 1Q15.

NORTH PROPERTY

BP PROPERTY

VILLAGE OF ROXANA

RAND AVE.

SHELL OIL COMPANY PROPERTY

WEST PROPERTY

VILLAGE OF HARTFORD

VALERO PROPERTY

MAIN PROPERTY

ILLINOIS TERMINAL RAILROAD

T ST. · R ST. · O ST. · M ST. · L ST.

10TH ST. · 17TH ST. · 21ST ST. · 112TH ST. · 22ND ST.

SCALE Ø 8ØØ FEET

REFERENCE: SHELL DRAWING E–36137–12

SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 60400249
AECOM		
DRN. BY: djd July 2Ø15 DSGN. BY: lr CHKD. BY: bbb	2Q15 Thickness of LNAPL	FIG. NO. 4b

File: P:\PROJECTS\ENVIRONMENTAL\SHELL\215863720 ROX 2015\6.0 DELIVERABLES\GROUNDWATER REPORTING\2015\DRAFT REPORT\FIGURES\FIGURE 4B THICKNESS OF LNAPL (REFINERY).DWG Last edited: JUL. 07, 15 @ 3:53 p.m. by: david.dequire

File: P:\PROJECTS\ENVIRONMENTAL\SHELL\21563720_ROX_2015\6.0_DELIVERABLES\GROUNDWATER_REPORTING\2015\DRAFT_REPORT\FIGURES\FIGURE_5_2015_GROUNDWATER_ANALYTICAL_RESULTS_SUMMARY.DWG Last edited: JUL. 07, 15 @ 3:54 p.m. by: david_deguire

LEGEND

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

NOTES:

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

Analyte	Screening Criteria (mg/L)
Benzene	0.005
Ethylbenzene	0.7
MTBE	0.07
Naphthalene	0.14
Tetrachloroethene	0.005
Toluene	1.0
1,3,5-Trimethylbenzene	0.07
2,4-Dimethylphenol	0.14
2-Methylnaphthalene	0.028
Phenol	0.1

3. J = THE TARGET ANALYTE DETECTED BELOW THE REPORTING LIMIT AND THE RESULT IS ESTIMATED.

   U = RESULT IS NON-DETECT
4. MULTIPLE RESULTS (e.g., 1130/984) INDICATE DUPLICATE SAMPLES OR CONFIRMATION SAMPLES.
5. WELLS IDENTIFIED IN BLUE WITH NO DATA BOX INDICATE THE RESULTS DID NOT EXCEED SCREENING CRITERIA.
6. WELLS P-55 AND P-68 WERE NOT SAMPLED DURING 2Q15 DUE TO THE PRESENCE OF LNAPL.
7. GROUNDWATER MONITORING WELL MW-23 WAS INSTALLED AND ADDED TO THE INTERIM GROUNDWATER MONITORING PROGRAM IN 1Q15 AND SPLIT SAMPLED WITH BP DURING 2Q15.

Sample Location	MW-28
Sampled	Result (mg/L)
Benzene	0.0189

Sample Location	ROST-4-PZ(C)
Sampled	Result (mg/L)
Benzene	0.0694

Sample Location	ROST-3-MW
Sampled	Result (mg/L)
Benzene	0.0057

Sample Location	T-12
Sampled	Result (mg/L)
Benzene	1.69
Ethylbenzene	1.34
2-Methylnaphthalene	0.0335 J

Sample Location	P-74
Sampled	Result (mg/L)
Benzene	0.032

Sample Location	MW-22
Sampled	Result (mg/L)
Benzene	1.62
Ethylbenzene	3.05
Naphthalene	0.315
Toluene	4.3
1,3,5-Trimethylbenzene	0.321
2-Methylnaphthalene	0.0397

Sample Location	P-59
Sampled	Result (mg/L)
Benzene	9.43
Ethylbenzene	2.13
Naphthalene	0.161
1,3,5-Trimethylbenzene	0.177
2,4-Dimethylphenol	0.165

Sample Location	P-56
Sampled	Result (mg/L)
Benzene	0.0965
2-Methylnaphthalene	0.0293

Sample Location	MW-2
Sampled	Result (mg/L)
Benzene	0.0283
1,3,5-Trimethylbenzene	0.0882

Sample Location	P-57
Sampled	Result (mg/L)
Benzene	134
2-Methylnaphthalene	0.045
Phenol	0.164

Sample Location	MW-4
Sampled	Result (mg/L)
Benzene	0.0702

Sample Location	MW-25
Sampled	Result (mg/L)
Benzene	78.7
MTBE	0.125

Sample Location	P-93A	P-93B	P-93C	P-93D
Sampled	Result (mg/L)	Result (mg/L)	Result (mg/L)	Result (mg/L)
Benzene	139	400 / 388	55.3	131
Tetrachloroethene		0.00073 J / 0.216 J		
Phenol		0.104 J / 0.08 J		

Sample Location	MW-5
Sampled	Result (mg/L)
Benzene	0.0391

Sample Location	MW-7
Sampled	Result (mg/L)
Benzene	1110 / 1160

Sample Location	P-58
Sampled	Result (mg/L)
Benzene	325
Ethylbenzene	0.81
2-Methylnaphthalene	0.0563
Phenol	0.112

Sample Location	MW-8
Sampled	Result (mg/L)
Benzene	1100
MTBE	0.506
Phenol	0.129

Sample Location	P-66
Sampled	Result (mg/L)
Benzene	0.0223 / 0.0214

MW-9, MW-10, MW-28, MW-27, ROST-4-PZ(A), ROST-4-PZ(B), ROST-4-PZ(C), ROST-4-PZ, ROST-3-MW, ROST-4-PZ(D), ROST-4-PZ(E), ROST-4-PZ(F), MW-11, ROST-4-PZ(G), ROST-5-PZ, ROST-7-PZ, MW-17, MW-24, MW-22, MW-18, MW-19, MW-16, ROST-21-PZ, MW-12, ROST-10-PZ, MW-20, MW-1, MW-2, MW-26, MW-21, MW-4, MW-3, MW-25, MW-5, MW-23, MW-7, MW-8, MW-13, MW-6A, MW-6B, MW-6C, MW-6D, MW-14, P-54, P-55, P-60-S, P-60, P-60-13, P-60-13S, P-60-12, P-60-12S, P-68, P-69, P-70, P-61, P-73, P-75, P-114, P-58, P-66, P-57, P-93A, P-93B, P-93C, P-93D, T-12, T-24, T-6, A-28, A-33, A-27

SECOND ST
THIRD ST
FOURTH ST
FIFTH ST
SIXTH ST
SEVENTH ST
EIGHTH ST
HIGHWAY 111 (S. CENTRAL AVE)
CHAFFEER ST
RAND AVENUE
NORTH PROPERTY
WOOD RIVER REFINERY
VILLAGE OF ROXANA
BP
WEST PROPERTY
MAIN PROPERTY
1986 APPROXIMATE BENZENE RELEASE SITE

SCALE 0 200 FEET

SHELL OIL PRODUCTS US
INTERIM GROUNDWATER MONITORING PROGRAM
ROXANA, ILLINOIS

PROJECT NO. 60400249

AECOM

DRN. BY: djd July 2015
DSGN. BY: lr
CHKD. BY: bbb

2Q15 Groundwater Monitoring Well Analytical Exceedances

FIG. NO. 5

File: P:\PROJECTS\ENVIRONMENTAL\SHELL\21563720 ROX 2015\6.0_DELIVERABLES\GROUNDWATER_REPORTING\2Q15\DRAFT REPORT\FIGURES\FIGURE 6 DISSOLVED PHASE BENZENE CONCENTRATIONS IN GROUNDWATER.DWG Last edited: JUL. 07, 15 @ 3:56 p.m. by: david_deguire

LEGEND

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

NOTES:

1. IMAGES GENERATED UTILIZING CTECH ENVIRONMENTAL VISUALIZATION SYSTEM MODELING SOFTWARE. CONCENTRATIONS BETWEEN KNOWN DATA POINTS (E.G. GROUNDWATER MONITORING WELLS) ARE INTERPOLATIONS AND EXTRAPOLATIONS OF THE MEASURED DATA. SOME INTERPRETATION WAS COMPLETED UTILIZING PROFESSIONAL JUDGEMENT AND CONTOUR LINES WERE MODIFIED BY HAND.
2. ALL RESULTS SHOWN IN mg/L.
3. ANALYTICAL REPORTING LIMITS ARE SHOWN FOR SAMPLES WITH NON-DETECT RESULTS (e.g., <Ø.ØØØ5 mg/L).
4. J = THE TARGET ANALYTE WAS DETECTED BELOW THE REPORTING LIMIT AND THE RESULT IS ESTIMATED.
5. NON-DETECT VALUES ARE MODELED AT HALF THE REPORTING LIMIT.
6. MULTIPLE RESULTS (e.g. 111Ø/116Ø) INDICATE DUPLICATE SAMPLES OR CONFIRMATION SAMPLES.
7. CONTOUR LINES IN AREA OF P-55 ADJUSTED BASED ON AVAILABLE 2Q15 AND HISTORICAL ANALYTICAL DATA FROM WELLS IN THE AREA.
8. GROUNDWATER MONITORING WELL MW-23 WAS INSTALLED AND ADDED TO THE INTERIM GROUNDWATER MONITORING PROGRAM IN 1Q15 AND SPLIT SAMPLED WITH BP DURING 2Q15.

LNAPL THICKNESS WAS MEASURED DURING THE COMPREHENSIVE GROUNDWATER MONITORING GAUGING EVENT ON APRIL 1-6, 2Ø15. REFER TO TABLE 1a FOR GROUNDWATER GAUGING INFORMATION.

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

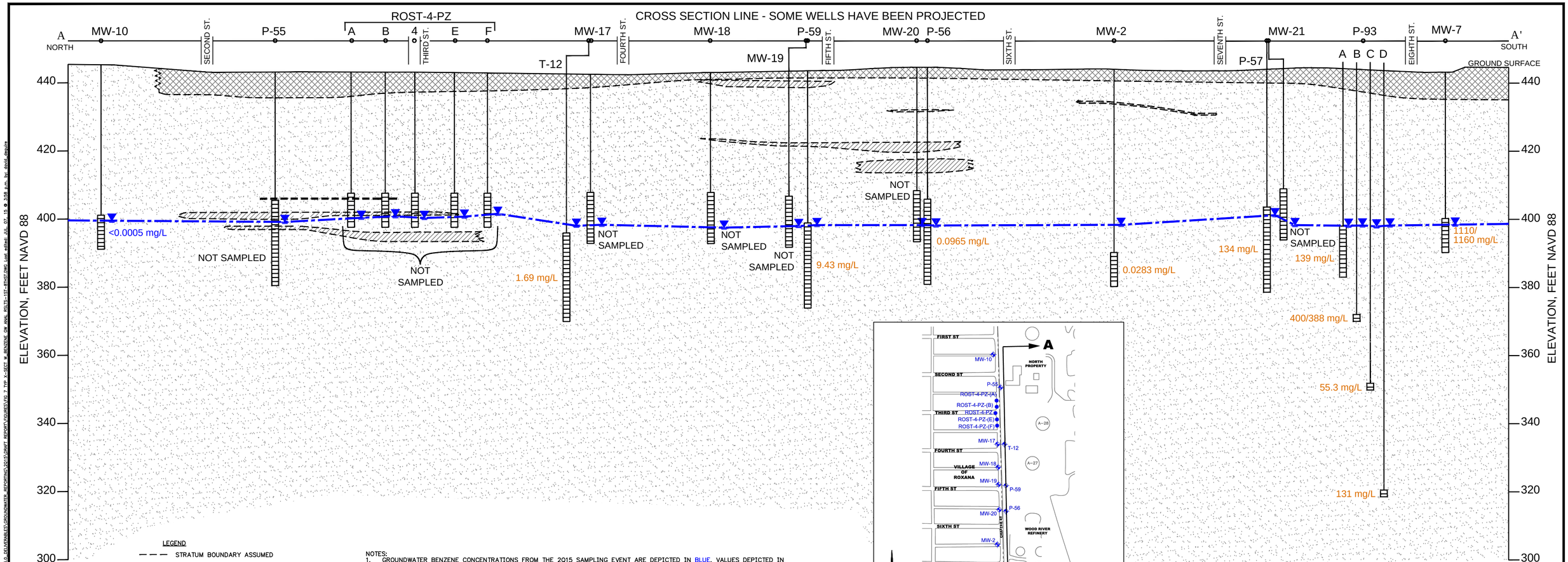
PZ-1(1Ø1) PZ-1(85) MW-9 <Ø.ØØØ5 MW-1Ø <Ø.ØØØ5 MW-28 Ø.Ø189 MW-27 Ø.ØØØ35 J ROST-4-PZ(C) Ø.Ø694 ROST-4-PZ(A) ROST-4-PZ(B) ROST-3-MW Ø.ØØ57 ROST-4-PZ Ø.Ø6 ROST-4-PZ(D) ROST-4-PZ(E) ROST-4-PZ(F) ROST-4-PZ(G) ROST-5-PZ MW-11 <Ø.ØØØ5 P-54 <Ø.ØØØ5 MW-17 T-12 1.69 MW-22 1.62 ROST-7-PZ MW-24 <Ø.ØØØ5 MW-18 MW-19 P-59 9.43 5.0 ROST-2-PZ MW-16 <Ø.ØØØ5 PZ-2(84) PZ-2(7Ø.5) MW-12 <Ø.ØØØ5 ROST-1Ø-PZ MW-2Ø P-56 Ø.Ø965 MW-1 <Ø.ØØØ5 MW-2 Ø.Ø283 MW-26 <Ø.ØØØ5 MW-3 <Ø.ØØØ5 MW-4 Ø.Ø7Ø2 MW-25 78.7 MW-7 111Ø/116Ø MW-5 Ø.Ø391 MW-23 <Ø.ØØØ5 MW-8 11ØØ P-58 325 MW-13 <Ø.ØØØ5 P-114 <Ø.ØØØ5 P-116 P-115 MW-21 P-57 134 T-6 P-93A 139 P-93B 4ØØ/388 P-93C 55.3 P-93D 131 P-66 Ø.Ø223/Ø.Ø214 MW-6A <Ø.ØØØ5 MW-6B <Ø.ØØØ5/<Ø.ØØØ5 MW-6C <Ø.ØØØ5 MW-6D Ø.ØØØ32 J P-75 MW-14 <Ø.ØØØ5 P-69 P-74 Ø.Ø32 P-61 1.97 P-7Ø 1.35 A-27 A-28 T-24 1.Ø8 P-6Ø Ø.Ø3 P-6Ø-S Ø.45 P-68 Ø.11 P-6Ø-11

0.10 0.01 0.10 0.10 0.01 1.00 1.00 0.05 0.5 0.05 0.005 500.0 50.0 5.0 0.5 0.05 0.005

Ø 2ØØ SCALE FEET

N

SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 6Ø4ØØ249
AECOM		
DRN. BY: djd July 2Ø15 DSGN. BY:nm/lr CHKD. BY:bbb	2Q15 Dissolved Phase Benzene Concentrations in Groundwater	FIG. NO. 6



KEYMAP
NOT TO SCALE

LEGEND

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

NOTES:

1. GROUNDWATER BENZENE CONCENTRATIONS FROM THE 2Q15 SAMPLING EVENT ARE DEPICTED IN BLUE. VALUES DEPICTED IN ORANGE EXCEED BENZENE SCREENING CRITERION (0.005 mg/L).
2. GROUNDWATER ELEVATIONS SHOWN ON THIS CROSS-SECTION ARE BASED ON GROUNDWATER GAUGING DATA COLLECTED APRIL 1-6, 2015.
3. THIS GEOLOGIC CROSS-SECTION IS PRIMARILY BASED ON THE INTERPRETATION OF CPT DATA COLLECTED BY URS DURING THE 2006 AND 2009 INVESTIGATION ACTIVITIES. BORING LOGS DEVELOPED DURING OTHER DRILLING TECHNIQUES (E.G. AUGER AND GEOPROBE) WERE USED TO SUPPLEMENT CPT DATA.
4. THE DEPTH AND THICKNESS OF INDIVIDUAL STRATA DEPICTED MAY BE BASED ON CPT LOGS GENERATED AT NEARBY LOCATIONS. THEREFORE, WELL SCREENS MAY APPEAR TO BE PARTIALLY WITHIN CLAY LAYERS OR SHALLOW/DEEPER WITHIN A PERMEABLE STRATUM THAN ACTUAL CONDITIONS DUE TO MAP PROJECTIONS.
5. HISTORIC BORING LOG IS NOT AVAILABLE FOR T-12.

0 20
VERTICAL SCALE FEET

0 100
HORIZONTAL SCALE FEET

SHELL OIL PRODUCT US
INTERIM GROUNDWATER MONITORING PROGRAM
ROXANA, ILLINOIS

PROJECT NO. 60400249

AECOM

DRN. BY: djd July 2015
DSGN. BY: lr
CHKD. BY: bbb

Cross-Section of Benzene
2Q15 Groundwater Analytical Results-
Chaffer Street

FIG. NO. 7

CROSS SECTION LINE - SOME WELLS HAVE BEEN PROJECTED

WEST
B

EAST
B'

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

(S. CENTARL AVE) HIGHWAY 111

EIGHTH ST

SEVENTH ST

GROUND SURFACE

ELEVATION, FEET NAVD 88

440
420
400
380
360
340
320
300

<0.0005 mg/L

<0.0005/
<0.0005 mg/L

<0.0005 mg/L

0.00032 J mg/L

1110/
1160 mg/L

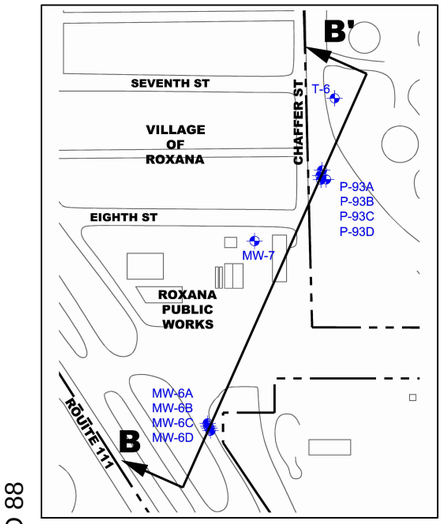
139 mg/L

NOT SAMPLED

400/388 mg/L

55.3 mg/L

131 mg/L



KEYMAP
NOT TO SCALE

LEGEND

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

Ø 20
VERTICAL SCALE FEET

Ø 100
HORIZONTAL SCALE FEET

NOTES:
1. GROUNDWATER BENZENE CONCENTRATIONS FROM THE 2Q15 SAMPLING EVENT ARE DEPICTED IN BLUE. VALUES DEPICTED IN ORANGE EXCEED BENZENE SCREENING CRITERION (0.005 mg/L).
2. GROUNDWATER ELEVATIONS SHOWN ON THIS CROSS-SECTION ARE BASED ON GROUNDWATER GAUGING DATA COLLECTED APRIL 1-6, 2015.
3. THIS GEOLOGIC CROSS-SECTION IS PRIMARILY BASED ON THE INTERPRETATION OF CPT DATA COLLECTED BY URS DURING THE 2006 AND 2009 INVESTIGATION ACTIVITIES. BORING LOGS DEVELOPED DURING OTHER DRILLING TECHNIQUES (E.G. AUGER AND GEOPROBE) WERE USED TO SUPPLEMENT CPT DATA.
4. THE DEPTH AND THICKNESS OF INDIVIDUAL STRATA DEPICTED MAY BE BASED ON CPT LOGS GENERATED AT NEARBY LOCATIONS. THEREFORE, WELL SCREENS MAY APPEAR TO BE PARTIALLY WITHIN CLAY LAYERS OR SHALLOW/DEEPER WITHIN A PERMEABLE STRATUM THAN ACTUAL CONDITIONS DUE TO MAP PROJECTIONS.
5. LITHOLOGICAL INFORMATION FROM SVE-27 WAS OBTAINED FROM BORING LOG TO SUPPLEMENT SITE GEOLOGY ONLY.
6. HISTORIC BORING LOG IS NOT AVAILABLE FOR T-6.

DRAFT

SHELL OIL PRODUCT US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS	PROJECT NO. 60400249
AECOM	
DRN. BY: djd July 2015 DSGN. BY: lr CHKD. BY: wmp	Cross-Section of Benzene 2Q15 Groundwater Analytical Results- Roxana Public Works Yard
	FIG. NO. 8

File: P:\PROJECTS\ENVIRONMENTAL\SHELL\215637201 ROX 2015\6.0_DELIVERABLES\GROUNDWATER_REPORTING\2015\DRAFT REPORT\FIGURES\FIG 8 TYP X-SECT W_BENZENE GW ANAL RSLTS-HWY111-CHAFFER.DWG Last edited: JUN. 17, 15 @ 1:42 p.m. by: david_dejuire

Appendix A.
Groundwater Sampling Data Sheets

LOW FLOW GROUNDW[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: DChase/BTesfu

DATE: 4-6-15 WEATHER: cloudy 65°F

MONITORING WELL ID: MW-1 SAMPLE ID: MW1-ROX-040615

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 59.13 ft
Depth to Water (btoc): 44.17 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 48.80 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 14.96 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 53.8 ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 876.73* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,630 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 53.3 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

	Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
1	0	1128	44.18	None	None	6.77	1.111	5	0.26	4.142	18.08
2	800	11:30	↓	↓	↓	6.77	1.113	-13	0.18	2.858	18.24
3	~~2400~~ 1600	11:32				6.77	1.117	-36	0.14	1.732	18.29
	2400	11:34				6.78	1.122	-49	0.12	1.703	18.33
	3600	11:37				6.78	1.126	-59	0.10	0.9687	18.34
	4400	11:39				6.78	1.130	-68	0.08	0.5856	18.34

Start Time: 1128 Elapsed Time (min): 11 Water Quality Meter ID & SN: TROLL 9500 -- R-26431

Stop Time: 11:39 Average Purge Rate (mL/min): 400 Date Calibrated: 4-6-15

SAMPLING DATA

Sample Date: 4-6-15 Sample Time: 11:45 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: none

VOA Vials, No Headspace ☑ Initials: [illegible]

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

Total Purge Volume: 4400 mL

LOW FLOW GROUNDW[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: E. Schumacher / D. Chase

DATE: 4-13-15 WEATHER: Sunny 70°

MONITORING WELL ID: MW-2 SAMPLE ID: MW2-ROX-041315

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 60.20 ft
Depth to Water (btoc): 45.56 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 49.87 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 14.64 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 54.87 ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell: 867.81* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,603 mL
Ambient PID/FID Reading: 0 ppm
Wellbore PID/FID Reading: 211.7 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	14:26	45.60	COLORLESS	STRONG	6.91	1.372	-104	0.97	-13.15	20.90
1200	14:29				6.88	1.383	-108	0.30	12.19	20.82
2000	14:31				6.87	1.389	-111	0.18	-13.15	20.54
2800	14:33				6.87	1.389	-113	0.12	-4.641	20.54
3600	14:35				6.87	1.390	-114	0.09	-1.655	20.46
4400	14:37				6.86	1.390	-115	0.07	-11.94	20.39

4-13-15

Start Time: 14:26 Elapsed Time (min): 12 Water Quality Meter ID & SN: TROLL 9500 – A26241

Stop Time: 14:38 Average Purge Rate (mL/min): 400 Date Calibrated: 4-13-15

SAMPLING DATA

Sample Date: 4-13-15 Sample Time: 14:45 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: NONE

VOA Vials, No Headspace ☒ Initials: DJC ES

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

Total Purge Volume: 4400 mL

LOW FLOW GROUNDW[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW | PROJECT NUMBER: 21563720.03002 | FIELD PERSONNEL: DChase/BTesfu

DATE: 04/10/15 | WEATHER: Sunny 70°F

MONITORING WELL ID: MW-3 | SAMPLE ID: MW3-ROX-041015

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 45.00 ft
Depth to Water (btoc): 31.28 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 34.67 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 13.72 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 39.67 ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 814.25* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,443 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	14:38	31.30	None	None	6.90	1.536	-140	0.42	4.116	19.56
800	14:40				6.92	1.542	-144	0.21	7.101	19.43
1,600	14:42				6.93	1.541	-146	0.11	2.283	19.33
* 2,400	14:44				6.94	1.539	-148	0.06	2.346	19.28
3,200	14:53				6.93	1.536	-129	0.29	-1.618	19.27
4,000	14:55				6.94	1.540	-134	0.11	0.5561	19.29
4,800	14:57				6.94	1.541	-137	0.05	1.433	19.32
5,600	14:59				6.94	1.542	-140	0.02	0.8707	19.39

BT

Start Time: 14:38 | Elapsed Time (min): 21 | Water Quality Meter ID & SN: TROLL 9500 – R26431

Stop Time: 14:59 | Average Purge Rate (mL/min): 400 | Date Calibrated: 04/10/15

SAMPLING DATA

Sample Date: 04/10/15 | Sample Time: 15:05 | Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow | Sample Flow Rate (mL/min): 400 | QA/QCSamples: none

VOA Vials, No Headspace ☑ Initials: BT

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

* lost flow - marine battery dead, hooked up to truck and reestablished flow rate

Total Purge Volume: 5,600 mL

LOW FLOW GROUNDW[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW | PROJECT NUMBER: 21563720.03002 | FIELD PERSONNEL: D.Chase, C.Williams

DATE: 4/21/15 | WEATHER: Partly Cloudy

MONITORING WELL ID: MW-4 | SAMPLE ID: MW-4-042115 ROX-

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 56.39 ft
Depth to Water (btoc): 42.56 ft
Depth to LNAPL/DNAPL (btoc): N/E ft
Depth to Top of Screen (btoc): 46.06 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 13.83 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 51.06 ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 836.56* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,510 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 41.2 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	0859	42.55	Colorless	slight	6.97	1.236	-31	0.14	26.55	18.29
800	0901	"	"	"	6.98	1.235	-40	0.07	25.09	18.35
1600	0903	"	"	"	6.99	1.226	-47	0.02	25.72	18.47
2400	0905	"	"	"	7.00	1.220	-53	-0.01	27.81	18.51
3200	0908	"	"	"	7.00	1.400	-57	-0.02	26.88	18.53
4000	0910	"	"	"	7.01	1.457	-61	-0.03	26.49	18.55
4800	0912	"	"	"	7.01	1.510	-65	-0.04	23.84	18.53
5600	0914	"	"	"	7.02	1.551	-68	-0.05	21.24	18.50
6400	0916	"	"	"	7.02	1.588	-71	-0.05	19.72	18.50
7200	0918	"	"	"	7.02	1.619	-73	-0.06	17.17	18.49
8000	0921	"	"	"	7.02	1.638	-75	-0.06	15.78	18.54
8800	0923	"	"	"	7.02	1.660	-77	-0.06	16.36	18.60

CW

Start Time: 0859 | Elapsed Time (min): 24 | Water Quality Meter ID & SN: TROLL 9500 – R25513

Stop Time: 0925 | Average Purge Rate (mL/min): 400 | Date Calibrated: 4-21-15

SAMPLING DATA

Sample Date: 4/21/15 | Sample Time: 0930 | Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow | Sample Flow Rate (mL/min): 400 | QA/QCSamples: None

VOA Vials, No Headspace ☑ Initials: CW

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

Total Purge Volume: 9800 mL

LOW FLOW GROUNDW[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: G. Schumacher, D. Chase

DATE: 4-13-15 WEATHER: SUNNY

MONITORING WELL ID: MW-5 SAMPLE ID: MW5-ROX-04/315

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 44.30 ft
Depth to Water (btoc): 30.97 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 33.97 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 13.33 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 38.97 ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 809.78* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,429 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	13:18	30.97	COLORLESS	STRONG	6.77	1.414	-124	0.14	-4.264	19.45
800	13:20	↓	↓	↓	6.77	1.412	-125	0.09	13.53	19.36
1600	13:22				6.77	1.410	-126	0.07	-0.5600	19.28
2400	13:24				6.77	1.410	-127	0.05	18.68	19.25
3200	13:26				6.77	1.410	-128	0.03	-13.15	19.24

4-13-15

Start Time: 13:18 Elapsed Time (min): 10 Water Quality Meter ID & SN: TROLL 9500 – A26241

Stop Time: 13:28 Average Purge Rate (mL/min): 400 Date Calibrated: 4-13-15

SAMPLING DATA

Sample Date: 4-13-15 Sample Time: 1335 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: ~~NONE~~ (ES) MS/MSD

VOA Vials, No Headspace: ☒ Initials: ~~MAC~~ TS

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

Total Purge Volume: 3200 mL

LOW FLOW GROUNDV. SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: DChasel BTesfu

DATE: 4-7-15 WEATHER: pcloudy 65°F

MONITORING WELL ID: MW-6A SAMPLE ID: MW6A-ROX-040715

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 45.16 ft
Depth to Water (btoc): 33.08 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 34.83 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 12.08 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 39.83 ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 814.25* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,443 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	~~3200~~ 15:23	33.08	None	None	6.76	1.576	-98	0.40	11.04	18.21
800	15:25	↓	↓	↓	6.77	1.567	-102	0.20	11.71	18.40
1600	15:27				6.77	1.557	-105	0.12	14.17	18.49
2400	15:29				6.78	1.551	-107	0.09	13.04	18.54
3200	15:31				6.78	1.548	-108	0.07	8.349	18.57

BT

Start Time: 15:23 Elapsed Time (min): 8 Water Quality Meter ID & SN: TROLL 9500 – R26431

Stop Time: 15:31 Average Purge Rate (mL/min): 400 Date Calibrated: 4-7-15

SAMPLING DATA

Sample Date: 04/07/15 Sample Time: 15:35 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: EB@1510

VOA Vials, No Headspace ☒ Initials: BT

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

Total Purge Volume: 3200 mL

LOW FLOW GROUNDV . SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW **PROJECT NUMBER:** 21563720.03002 **FIELD PERSONNEL:** DChase/BTesfu

DATE: 4-7-15 **WEATHER:** p cloudy ~65°F

MONITORING WELL ID: MW-6B **SAMPLE ID:** MW6B-ROX-040715

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 69.38 ft
Depth to Water (btoc): 33.10 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 64.05 ft
Screen Length): 5 ft

Water Column Height (do not include LNAPL or DNAPL): 36.28 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 66.55 ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 921.37* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,764 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 278.1 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	1415	33.11	cloudy	none	7.81	1.204	-81	0.36	23.50	17.83
1200	1418	33.11	↓	↓	6.99	1.206	-83	0.19	18.06	17.96
2800	1422	33.11	↓	↓	6.98	1.204	-85	0.12	15.63	18.05
3200	1428	33.11	colorless	↓	6.98	1.204	-86	0.09	9.720	18.06

Start Time: 1415
Stop Time: 1423
Elapsed Time (min): 8
Average Purge Rate (mL/min): 400
Water Quality Meter ID & SN: TROLL 9500 -- R26431
Date Calibrated: 4-7-14

SAMPLING DATA

Sample Date: 4-7-15
Sample Time: 1430
Lab Analysis: VOC, SVOC
Sample Method: Monsoon Pump / Low Flow
Sample Flow Rate (mL/min): 400
QA/QCSamples: DUP
VOA Vials, No Headspace ☒ Initials: DAC

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

Total Purge Volume: 3200 mL

LOW FLOW GROUNDW[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW | PROJECT NUMBER: 21563720.03002 | FIELD PERSONNEL: B. Tesp & D. Chase

DATE: ~~4-7-15~~ 4-9-15 | WEATHER: ~~Windy 65°F~~ pdondy, windy 70°F

MONITORING WELL ID: MW-6C | SAMPLE ID: ~~MW06C-ROX-04-0715~~ 040915 MW06C-ROX-04-0715

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 90.28 ~~32.80~~ ft
Depth to Water (btoc): ~~32.85~~ ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 84.95 ft
Screen Length): 5 ft

Water Column Height (do not include LNAPL or DNAPL): 57.48 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 87.45 ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 1,015.10* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 3,045 mL
Ambient PID/FID Reading: 0 ppm
Wellbore PID/FID Reading: ~~4.4~~ 1.9 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	12:30	32.80	None	None	7.33	0.9363	-132	0.98	19.42	19.48
800	12:32	↓	↓	↓	7.19	0.9513	-130	0.24	15.11	18.74
1600	12:34				7.15	0.9513	-130	0.15	11.27	18.44
3200	12:38				7.13	0.9524	-131	0.09	5.796	18.33
4,000	12:40				7.13	0.9528	-131	0.06	3.487	18.33
				BT						

Start Time: 12:30 | Elapsed Time (min): 10 | Water Quality Meter ID & SN: TROLL 9500 – RZ0431
Stop Time: 12:40 | Average Purge Rate (mL/min): 400 | Date Calibrated: 04/09/15

SAMPLING DATA

Sample Date: 04/09/15 | Sample Time: 12:45 | Lab Analysis: VOC, SVOC
Sample Method: Monsoon Pump / Low Flow | Sample Flow Rate (mL/min): 400 | QA/QCSamples: None
VOA Vials, No Headspace ☑ Initials: BT

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500
~~*~~ not sampled 4-7-15 due to dropping permanent marker down the well that was then removed allowed well to restabilize, return 4-9-15 to sample. Sample was collected after stabilizing parameters on 4/9/15. Total Purge Volume: 4000 mL

LOW FLOW GROUNDW . SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: DChase BTesfu

DATE: 4-7-15 WEATHER: cloudy 65°F

MONITORING WELL ID: MW-6D SAMPLE ID: MW06D-ROX-040715

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 110.05 ft
Depth to Water (btoc): 32.74 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 104.72 ft
Screen Length): 5 ft

Water Column Height (do not include LNAPL or DNAPL): 77.31 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = ~~107.55~~ ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 107.22 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = - ft btoc

Volume of Flow Through Cell : 1,099.91* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 3,300 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 61.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	12:57	32.74	Cloudy	NONE	7.07	1.259	-122	0.13	41.84	17.44
800	12:59	↓	↓	↓	7.09	1.268	-123	0.09	31.32	17.47
2000	13:02				7.10	1.272	-124	0.07	21.75	17.48
4,000	13:05				7.10	1.277	-124	0.06	12.27	17.49

Start Time: 12:57 Elapsed Time (min): 7 Water Quality Meter ID & SN: TROLL 9500 – RZ6431

Stop Time: 13:05 ~~12:57~~ Average Purge Rate (mL/min): 400 Date Calibrated: 04/07/15

SAMPLING DATA

Sample Date: 13:10 Sample Time: 13:10 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: none

VOA Vials, No Headspace ☒ Initials: BT

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

Total Purge Volume: 4000 mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: DChase / CWilliams

DATE: 4-21-15 WEATHER: cloudy 60°F

MONITORING WELL ID: MW-7 SAMPLE ID: MW7+DUP-042115

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 52.92 ft
Depth to Water (btoc): 44.63 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 42.92 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 8.29 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 48.78 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = ft btoc

Volume of Flow Through Cell : 849.95* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,550 mL
Ambient PID/FID Reading: 0.4 ppm
Wellbore PID/FID Reading: 0.5 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	1414	44.63	colorless	none	7.12	2.760	-45	0.24	14.26	19.23
800	1416	"	"	"	7.05	2.791	-52	0.15	17.78	19.16
1600	1418	"	"	"	7.01	2.810	-56	0.10	15.46	19.17
2400	1420	"	"	"	6.99	2.832	-60	0.08	11.42	19.07
2800	1422	"	"	"	6.97	2.848	-64	0.06	8.216	19.00

Start Time: 1414
Stop Time: 1424

Elapsed Time (min): 10 min
Average Purge Rate (mL/min): 400 mL

Water Quality Meter ID & SN: TROLL 9500 – R25513
Date Calibrated: 4-21-15

SAMPLING DATA

Sample Date: 4-21-15
Sample Time: 1430
Lab Analysis: VOC, SVOC
Sample Method: Monsoon Pump / Low Flow
Sample Flow Rate (mL/min): 400
QA/QCSamples: DUP
VOA Vials, No Headspace (Y) Initials: DMC

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

Total Purge Volume: 2800 mL

LOW FLOW GROUNDV ; SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: DPhase/CWilliams

DATE: 4-21-15 WEATHER: sunny 100°F

MONITORING WELL ID: MW-8 SAMPLE ID: MW8-ROX-042115

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 43.60 ft
Depth to Water (btoc): 35.41 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 33.60 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 8.19 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 39.51 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = ft btoc

Volume of Flow Through Cell : 805.32* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,416 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	1106	35.45	colorless	None	6.95	2.577	-58	0.15	14.08	19.29
800	1108	35.43	"	"	6.89	2.594	-59	0.10	12.20	19.36
1600	1110	35.43	"	"	6.86	2.610	-60	0.08	9.197	19.45
2400	1112	"	"	"	6.83	2.631	-61	0.06	8.642	19.47
3200	1115	"	"	"	6.81	2.652	-62	0.05	6.053	19.46

DMC

Start Time: 1100 Elapsed Time (min): 9 Water Quality Meter ID & SN: TROLL 9500 -- R25513

Stop Time: 1115 Average Purge Rate (mL/min): 400 mL Date Calibrated: 4-21-15

SAMPLING DATA

Sample Date: 4-21-15 Sample Time: 1120 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 400 mL QA/QCSamples: none

VOA Vials, No Headspace ☒ Initials: DMC

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

Total Purge Volume: 3200 mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: DChasel BTesfu

DATE: 4-9-15 WEATHER: p-cloudy 70°F

MONITORING WELL ID: MW-9 SAMPLE ID: mw9-ROX-040915

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 56.78 ft
Depth to Water (btoc): 45.39 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 46.45 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 11.40 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 51.95 ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 836.56* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,510 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	1019	45.40	colorless	none	6.70	1.507	-88	0.29	5.517	18.57
1200	1022				6.71	1.486	-87	0.20	6.857	18.78
2000	1024				6.72	1.463	-85	0.14	4.535	18.97
2800	1026				6.72	1.450	-84	0.10	2.820	18.98
4000	1029				6.73	1.444	-83	0.08	2.342	18.68
4800	1031				6.73	1.436	-83	0.07	5.509	18.46
5600	1033				6.73	1.428	-82	0.06	4.783	18.32
6400	1035				6.73	1.425	-82	0.05	1.388	18.25
7600	1038				6.73	1.421	-82	0.04	1.592	18.21

Start Time: 1019 Elapsed Time (min): 19 Water Quality Meter ID & SN: TROLL 9500 – R26431

Stop Time: 1038 Average Purge Rate (mL/min): 400 Date Calibrated: 4-9-15

SAMPLING DATA

Sample Date: 4-9-15 Sample Time: 1045 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: none

VOA Vials, No Headspace ☒ Initials: DAC BT

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

Total Purge Volume: 7600 mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: DChase/BTesfu

DATE: 4-8-15 WEATHER: cloudy 70°F

MONITORING WELL ID: MW-10 SAMPLE ID: MW10-ROX-040815

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 54.76 ft
Depth to Water (btoc): 45.30 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 44.43 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 9.46 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = ~~5~~ ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 50.03 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 854.42* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,563 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	1538	45.31	colorless	none	6.86	1.872	-94	0.36	11.82	18.44
1200	1541	↓	↓	↓	6.810	1.864	-97	0.18	10.598	18.47
2000	1543				6.810	1.845	-100	0.11	5.838	18.47
2800	1545				6.816	1.825	-102	0.08	7.064	18.48

Start Time: 1538 Elapsed Time (min): 7 Water Quality Meter ID & SN: TROLL 9500 -- RZ6431

Stop Time: 1545 Average Purge Rate (mL/min): 400 Date Calibrated: 4-8-15

SAMPLING DATA

Sample Date: 04-08-15 Sample Time: 1550 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: EB@ 1515

VOA Vials, No Headspace ☒ Initials: DAO

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

Total Purge Volume: 2800 mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: B. Tesju

DATE: 04/08/15 WEATHER: Cloudy 70's

MONITORING WELL ID: MW-11 SAMPLE ID: MW11-ROX-040815

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 51.99 ft
Depth to Water (btoc): 43.19 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 41.66 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 8.80 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = ~~47.59~~ ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 47.59 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell: 845.49* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,536 mL
Ambient PID/FID Reading: 0 ppm
Wellbore PID/FID Reading: 0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	~~14:20~~ 14:19	43.19	Cloudy	None	6.84	1.372	-86	0.39	104.2	18.0
~~800~~ 1,200	14:22				6.82	1.382	-87	0.19	81.79	17.90
2,000	14:24				6.81	1.394	-88	0.13	64.81	17.85
2,800	14:26				6.81	1.406	-88	0.11	0.08	17.83
3,600	14:28		Slightly cloudy		6.80	1.417	-87	0.11	29.80	17.80
~~4,400~~	14:30				6.80	1.426	-86	0.11	27.03	17.74
~~5,200~~	14:32				6.79	1.432	-85	0.12	15.17	17.68
6,000 ~~5,800~~	14:34				6.79	1.435	-85	0.12	14.32	17.64
6,800	14:36				6.79	1.438	-84	0.12	12.55	17.62
7,400	14:38				6.79	1.442	-84	0.11	9.623	17.63

BT

Start Time: ~~14:20~~ 14:19 Elapsed Time (min): 19 Water Quality Meter ID & SN: TROLL 9500 – R20431

Stop Time: 14:38 Average Purge Rate (mL/min): 400 Date Calibrated: 04/08/15

SAMPLING DATA

Sample Date: 04/08/15 Sample Time: 14:45 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: N/A.

VOA Vials, No Headspace ☑ Initials: BT.

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

Total Purge Volume: 7400 mL

LOW FLOW GROUNDW[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: B. Testa & D. Chase

DATE: 04/06/15 WEATHER: cloudy 60°F

MONITORING WELL ID: MW-12 SAMPLE ID: MW~~12~~-ROX-040615

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 52.25 ft
Depth to Water (btoc): 43.75 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 41.92 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 8.50 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 48.0 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 845.49* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,536 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 171.3 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	14:06	43.79	None	None	6.93	1.124	115	0.38	23.93	17.54
1600	14:10	↓	↓	↓	6.89	1.140	122	0.20	15.35	17.89
2400	14:12	↓	↓	↓	6.89	1.143	124	0.17	10.18	17.99
3200	14:14	↓	↓	↓	6.88	1.153	126	0.15	5.134	18.04

BT

Start Time: 14:06 Elapsed Time (min): ~~14~~ 8 Water Quality Meter ID & SN: TROLL 9500 – R-26431

Stop Time: 14:14 Average Purge Rate (mL/min): 400 Date Calibrated: 04/06/15

SAMPLING DATA

Sample Date: 04/06/15 Sample Time: 14:20 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: None

VOA Vials, No Headspace ☑ Initials: BT

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

Total Purge Volume: 3200 mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: Eric Schumacher / Darcy Hase

DATE: 4-14-15 WEATHER: Cloudy 68°

MONITORING WELL ID: MW-13 SAMPLE ID: MW13-ROX-041415

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 35.82 ft
Depth to Water (btoc): 30.71 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 25.57 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 5.11 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 33.26 ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 769.61* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,309 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs) *		Temp (°C)
0	14:42	30.14	CLOUDY	SLIGHT	6.87	1.393	-100	0.37	35.42	NM	20.31
800	14:44	↓	↓	↓	6.83	1.408	-104	0.14	-8.064	4.67	20.21
2000	14:47				6.81	1.412	-106	0.06	-8.152	7.54	20.20
2800	14:49				6.81	1.415	-108	0.03	-3.549	5.22	20.23

4-14-15

Start Time: 14:42 Elapsed Time (min): 17 MINS Water Quality Meter ID & SN: TROLL 9500 -- R26431

Stop Time: 14:50 Average Purge Rate (mL/min): 400 Date Calibrated: 4-14-15

SAMPLING DATA

Sample Date: 4-14-15 Sample Time: 14:55 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: NONE

VOA Vials, No Headspace ☒ Initials: ES/DC

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

* FIRST READING TROLL 9500, SECOND READING LAMOTTE 20/20

Total Purge Volume: 2800 mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: Eric Schumacher / Darcy Chase

DATE: 4-14-15 WEATHER: Partly Cloudy 70°

MONITORING WELL ID: MW-14 SAMPLE ID: MW14-ROX-041415

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 44.00 ft
Depth to Water (btoc): 35.16 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 33.42 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 8.84 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 39.58 ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 809.78* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,429 mL
Ambient PID/FID Reading: 0.6 ppm
Wellbore PID/FID Reading: 1.7 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs) *		Temp (°C)
0	15:45	35.20	COLORLESS	SLIGHT	6.83	1.532	-74	0.57	-12.38	1.16	19.60
800	15:47	↓	↓	↓	6.79	1.523	-79	0.17	-13.15	1.23	19.45
1600	15:49				6.70	1.504	-82	0.07	-1.154	1.32	19.39
2800	15:52				6.77	1.490	-84	0.03	-7.242	1.59	19.34

4-14-15

Start Time: 15:45 Elapsed Time (min): 9 MINS Water Quality Meter ID & SN: TROLL 9500 -- RX64631

Stop Time: 15:54 Average Purge Rate (mL/min): 400 Date Calibrated: 4-14-15

SAMPLING DATA

Sample Date: 4-14-15 Sample Time: 16:00 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: NONE

VOA Vials, No Headspace ☒ Initials: ES/DC

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

& FIRST READING TROLL 9500, SECOND READING LAMOTTE 20/20

Total Purge Volume: 2800 mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: B. Tesfu & D. Chase

DATE: 04/09/15 WEATHER: Sunny, 80's F

MONITORING WELL ID: MW-16 SAMPLE ID: MW16 - ROX - 040915

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 47.31 ft
Depth to Water (btoc): 44.87 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 37.43 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): ~~2.44~~ 2.44 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = ~~46.09~~ ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = 45.31 ft btoc

Volume of Flow Through Cell : 823.17* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,470 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	13:47	NE*	None	None	6.66	1.806	-98	0.45	25.40	20.21
~~600~~900	13:49 13:50				6.64	1.809	-101	0.18	8.106	19.82
1,800	13:53				6.64	1.808	-102	0.10	7.205	19.49
2,700	13:56				6.63	1.801	-103	0.06	-1.982	19.32
3300	13:58				6.63	1.797	-103	0.04	-6.776	19.18
4,200	14:01				6.63	1.794	-104	0.03	-2.669	19.08
5,100	14:04			BT.	6.63	1.792	-104	0.02	-2.697	19.06

Start Time: 13.47 Elapsed Time (min): 17 Water Quality Meter ID & SN: TROLL 9500 – R26431

Stop Time: 14:04 Average Purge Rate (mL/min): 300 Date Calibrated: 04/09/15

SAMPLING DATA

Sample Date: 04/09/15 Sample Time: 14:10 Lab Analysis: VOC, SVOC

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

VOA Vials, No Headspace ☑ Initials: BT

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500
* Placement of pump restricted GW measurment

Total Purge Volume: 5100 mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: Eric Schumacher, Darcy Chase

DATE: 4-14-15 WEATHER: CLOUDY 60°

MONITORING WELL ID: MW-22 SAMPLE ID: MW22-ROX-041415

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 48.13 ft
Depth to Water (btoc): 43.71 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 38.21 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 4.42 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 45.92 ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 827.64* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,483 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs) *		Temp (°C)
					STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C
0	10:54	43.77	COLORLESS	NONE	6.69	1.013	-88	0.51	37.37	8.07	19.52
1200	10:57	↓	↓	↓	6.70	1.034	-94	0.24	25.80	7.57	20.03
2000	10:59				6.70	1.050	-97	0.13	35.65	7.83	20.35
2800	11:01				6.71	1.060	-100	0.07	37.07	8.05	20.52
3600	11:03				6.71	1.068	-102	0.05	35.31	7.14	20.51

[signature] 4-14-15

Start Time: 10:54 Elapsed Time (min): 11 MINS Water Quality Meter ID & SN: TROLL 9500 – R26431

Stop Time: 11:05 Average Purge Rate (mL/min): 400 Date Calibrated: 4-14-15

SAMPLING DATA

Sample Date: 4-14-15 Sample Time: 11:10 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: NONE

VOA Vials, No Headspace ☒ Initials: ES, DC

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500
* FIRST READING TROLL 9500, SECOND READING LAMOTTE 20/20

Total Purge Volume: 3600 mL

LOW FLOW GROUNDWAT AMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: B. Tesfu & D. Chase

DATE: 04/08/15 WEATHER: Partly Cloudy 70s F

MONITORING WELL ID: MW-23 SAMPLE ID: MW23-ROX-040815

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 39.27 ft
Depth to Water (btoc): 32.24 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 29.02 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 7.03 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 35.75 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = ft btoc

Volume of Flow Through Cell : 800.85* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,403 mL
Ambient PID/FID Reading: 0.2 ppm
Wellbore PID/FID Reading: 18.6 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	9:34	32.26	Cloudy	NONE	6.75	0.9473	-99	0.19	99.30	19.09
800	9:36				6.78	0.9454	-103	0.13	111.2	19.05
1600	9:38				6.80	0.9426	-105	0.08	98.79	19.06
2400	9:40				6.80	0.9413	-106	0.05	95.06	19.05
3600	9:42				6.81	0.9406	-107	0.04	97.51	19.04
4400	9:44				6.82	0.940	-109	0.02	82.26	19.06
5200	9:46				6.82	0.9404	-109	0.01	72.43	19.05
5600	9:47				6.82	0.9416	-110	0.01	60.59	19.10
6000	9:48				6.82	0.9423	-110	-0.00	47.92	19.11
6400	9:49		Slightly Cloudy		6.82	0.9431	-111	0.00	41.32	19.13
7200	9:51				6.82	0.9434	-111	-0.01	25.85	19.15
8000	9:53				6.82	0.944	-111	-0.01	16.51	19.14
8800	9:55				6.82	0.9433	-111	-0.02	8.159	19.15
BT					DAC					

Start Time: 9:34 Elapsed Time (min): 21 Water Quality Meter ID & SN: TROLL 9500 -- R26431

Stop Time: 9:55 Average Purge Rate (mL/min): 400 Date Calibrated: 04/08/15

SAMPLING DATA

Sample Date: 04/08/15 Sample Time: 10:00 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: split samples w/ BP @ 1000

VOA Vials, No Headspace ☑ Initials: DAC

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

BT

Total Purge Volume: 8,800 ~~13,600~~ mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: B. Tesyl & D. Chase.

DATE: 04/09/15 WEATHER: Sunny, 80's

MONITORING WELL ID: MW-24 SAMPLE ID: MW24-ROX-040915

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 49.14 ft
Depth to Water (btoc): 44.45 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 38.89 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 4.69 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at: 46.80
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = ft btoc

Volume of Flow Through Cell : 832.10* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,496 mL
Ambient PID/FID Reading: 0 ppm
Wellbore PID/FID Reading: 73.2 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	~~14:58~~	44.48	None	None	6.90	1.402	90	0.36	10.0k.	19.93
800	15:00				6.88	1.390	93	0.26	5.666	19.30
1600	15:02				6.86	1.383	95	0.24	2.43C	18.97
2400	15:04				6.86	1.378	97	0.23	4.327	18.81
3200	15:06				6.85	1.376	99	0.25	-0.4014	18.72
4,000	13:08	↓	↓	↓	6.85	1.374	100	0.24	1.210	18.63
				BT						

Start Time: 14:58 Elapsed Time (min): 10 Water Quality Meter ID & SN: TROLL 9500 – R26431

Stop Time: 15:08 Average Purge Rate (mL/min): 400 Date Calibrated: 4-9-15

SAMPLING DATA

Sample Date: 04/09/15 Sample Time: 15:15 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: NONE

VOA Vials, No Headspace ☑ Initials: BT

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

Total Purge Volume: 4,000 mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: DChase / CWilliams

DATE: 4-21-15 WEATHER: sunny 60°F

MONITORING WELL ID: MW-25 SAMPLE ID: MW25-ROX-042115

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 45.84 ft
Depth to Water (btoc): 39.71 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 35.59 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 6.13 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 42.79 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 818.71* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,456 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.1 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	1011	39.72	cloudy	slight	6.97	1.942	-55	0.15	35.92	18.52
800	1013	"	"	"	6.96	1.928	-60	0.06	26.17	18.75
1600	1015	"	"	"	6.95	1.935	-63	0.03	15.61	18.80
2400	1017	"	"	"	6.94	1.941	-66	0.00	8.774	18.85
3200	1019	"	"	"	6.94	1.945	-69	-0.02	4.866	18.87

CW

Start Time: 1011 Elapsed Time (min): 2 min Water Quality Meter ID & SN: TROLL 9500 – R25513

Stop Time: 1020 Average Purge Rate (mL/min): 400 Date Calibrated: 4-21-15

SAMPLING DATA

Sample Date: 4/21/15 Sample Time: 1025 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: None

VOA Vials, No Headspace ☑ Initials: CW

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

Total Purge Volume: 3200 mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: B. Tesfu & D. Chase

DATE: 04/08/15 WEATHER: cloudy 72°F

MONITORING WELL ID: MW-26 SAMPLE ID: MW26-ROX-040815

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 48.40 ft
Depth to Water (btoc): 42.52 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 38.15 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): ~~5.88~~ ~~4.48~~ 4.85 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 45.46 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

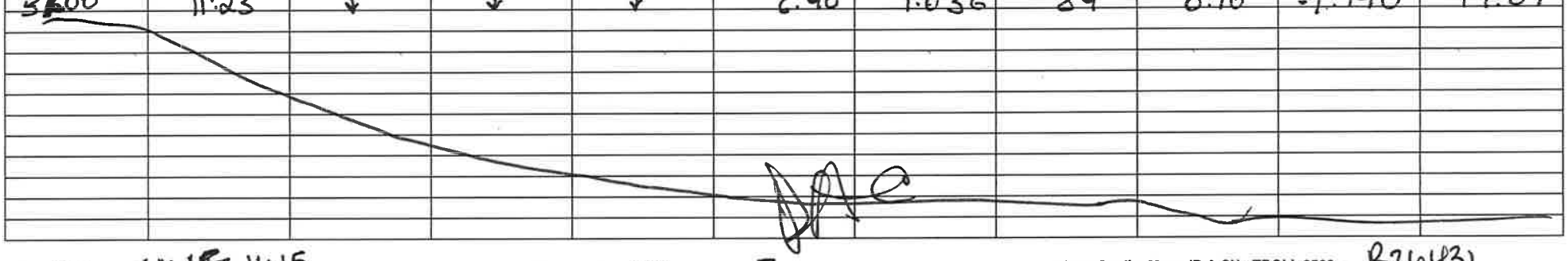
Volume of Flow Through Cell : 827.64* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2.4823 mL
Ambient PID/FID Reading: 0.2 ppm
Wellbore PID/FID Reading: 1.9 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
~~0~~ 0	11:15	42.52	NONE	NONE	6.92	1.010	90	0.66	5.477	19.13
800	11:17				6.90	1.028	88	0.30	5.985	19.14
1600	11:19				6.90	1.037	87	0.17	3.480	19.12
2400	11:21				6.90	1.039	88	0.12	1.557	19.08
3200	11:23				6.90	1.036	89	0.10	-1.140	19.04



Start Time: ~~11:15~~ 11:15 Elapsed Time (min): 8 Water Quality Meter ID & SN: TROLL 9500 – R26431

Stop Time: 11:23 Average Purge Rate (mL/min): 400 Date Calibrated: 04/08/15

SAMPLING DATA

Sample Date: 04/08/15 Sample Time: 11:30 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: MS/MSD @ 1130

VOA Vials, No Headspace ☒ Initials: DAE

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

Total Purge Volume: ~~3~~3200 mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: B. Tesfu & D. Chase

DATE: 04-10-15 WEATHER: Sunny, Windy, 60°s.

MONITORING WELL ID: MW-27 SAMPLE ID: MW27-ROX-041015

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 50.04 ft
Depth to Water (btoc): 43.22 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 39.79 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 6.82 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 46.63 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell: 836.56* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,510 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 15.7 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	10:27	44.45	Orange brown	None	6.86	1077	182	1.53	2731	16.86
900	10:36		↓		6.83	1.079	146	1.29	2638	17.08
1700	10:44		*		6.83	1.082	122	0.97	772.1	17.47
2500	10:50		cloudy		6.84	1.080	109	0.82	2731	17.46
** 3700	11:04		~~Cloudiness~~ BT.		6.84	1.088	98	0.92	58.53	17.82
4,600	11:12				6.84	1.094	87	0.80	38.64	17.71
5,400	11:20				6.84	1.099	81	0.73	31.15	17.81
6,300	11:29				6.84	1.104	76	0.66	23.55	18.20
7,200	11:38				6.84	1.108	74	0.63	81.20	18.58
8,000	11:46		Light brown		6.84	1.113	79	0.59	218.9	18.55
8,900	11:55		↓		6.84	1.119	80	0.58	79.28	18.73
9,700	12:03		Cloudy		6.84	1.121	80	0.57	32.53	18.82
10,500	12:11		↓		6.84	1.123	81	0.58	20.06	18.76
11,300	12:19				6.84	1.126	79	0.53	18.41	18.94
12,300	12:29	↓	↓	↓	6.84	1.130	77	0.43	22.35	18.94
		BT.								

Start Time: 10:27 Elapsed Time (min): ~~122~~ ~~12:35~~ 2hr & 2min Water Quality Meter ID & SN: TROLL 9500 -- R26431

Stop Time: 12:29 Average Purge Rate (mL/min): 100 Date Calibrated: 04/10/15

SAMPLING DATA

Sample Date: 04/10/15 Sample Time: 12:35 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 100 QA/QCSamples: EB @ 9:55

VOA Vials, No Headspace ☑ Initials: BT

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

** Reading was paused to cleanout the flow through cell b/c tubing cleaned out but initial sediment remained in cell.

Total Purge Volume: 12,300 mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: Eric Schumacher, Darcy Chase

DATE: 4-14-15 WEATHER: CLOUDY 60°

MONITORING WELL ID: MW-28 SAMPLE ID: MW28-ROX-041415

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 43.86 ft
Depth to Water (btoc): 42.34 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 33.61 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 1.52 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = 41.90 ft btoc

Volume of Flow Through Cell : 814.25* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,443 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	9:21	N/E	ORANGE	NO	6.60	2.009	-77	0.37	624.1	17.03
800	9:29	↓	↓	↓	6.62	2.135	-89	0.10	207.6	17.90
1700	9:38	↓	CLOUDY	↓	6.63	2.202	-94	0.04	17.80	18.23
2500	9:46	↓	COLORLESS	↓	6.64	2.231	-97	0.01	30.60 *	18.25
3300	9:54	↓	↓	↓	6.64	2.240	-100	-0.00	20.00 *	18.28

4-14-15

Start Time: 9:21 Elapsed Time (min): 36 MIN Water Quality Meter ID & SN: TROLL 9500 – K26431

Stop Time: 9:57 Average Purge Rate (mL/min): 100 Date Calibrated: 4-14-15

SAMPLING DATA

Sample Date: 4-14-15 Sample Time: 10:00 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 100 QA/QCSamples: NONE

VOA Vials, No Headspace ☒ Initials: ES, DC

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

* READING SUSPECT, REMEASURED WITH LAMOTTE 20/20 WE/WI TURBIDMETER READING 4.47 NTU " " " " " " " " " " " " 1.68 NTU Total Purge Volume: 3300 mL

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: B. Tesfu & D. Chase

DATE: 04-10-15 WEATHER: Cloudy 60°s F

MONITORING WELL ID: P-54 SAMPLE ID: P54-ROX-041015

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 63.00 ft
Depth to Water (btoc): 43.33 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 38.00 ft
Screen Length): 25 ft

Water Column Height (do not include LNAPL or DNAPL): 19.67 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = - ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 53.17 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 867.81* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,603 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	9:16	43.35	cloudy	None	6.68	1.488	135	2.57	52.42	16.24
800	9:18				6.73	1.488	136	2.39	45.57	16.68
1600	9:20				6.76	1.485	138	2.33	36.17	16.95
2800	9:23				6.77	1.484	139	2.32	29.66	17.07
3600	9:25				6.78	1.482	141	2.28	24.77	17.12
4400	9:27				6.79	1.481	142	2.23	16.74	17.15
5200	9:29				6.79	1.478	144	2.17	16.75	17.19
6400	9:32				6.79	1.475	145	2.10	~~17.23~~ 12.38	17.23 BT
7200	9:34				6.79	1.471	145	2.04	11.46	17.25
8,000	9:36			BT	6.79	1.465	146	1.96	11.72	17.29

Start Time: 9:16 Elapsed Time (min): 20 Water Quality Meter ID & SN: TROLL 9500 – RZ6431

Stop Time: 9:36 Average Purge Rate (mL/min): 400 Date Calibrated: 04/10/15

SAMPLING DATA

Sample Date: 04/10/15 Sample Time: 9:40 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: None

VOA Vials, No Headspace ☑ Initials: BT

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

Total Purge Volume: 8,000 mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: Erik Arthur, Jordan Peters

DATE: 4-13-15 WEATHER: Partly Cloudy 70°

MONITORING WELL ID: P-55 SAMPLE ID: —

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 50.68 ft
Depth to Water (btoc): 44.77 ft
Depth to LNAPL/DNAPL (btoc): 44.64 ft
Depth to Top of Screen (btoc): 40.43 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): — ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : — mL
Minimum Purge Volume = (3 x Flow Cell Volume): — mL
Ambient PID/FID Reading: — ppm
Wellbore PID/FID Reading: 91.5 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)

4-13-15

Start Time: N/A Elapsed Time (min): N/A Water Quality Meter ID & SN: TROLL 9500 – —

Stop Time: N/A Average Purge Rate (mL/min): N/A Date Calibrated: 4-13-15

SAMPLING DATA

Sample Date: 4-13-15 Sample Time: N/A Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): N/A QA/QCSamples: NONE

VOA Vials, No Headspace ☐ Initials: N/A

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500
No LNAPL PRESENT, NO SAMPLE TAKEN

Total Purge Volume: 0 mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: E. Schumacher / D. Chase

DATE: 4-15-15 WEATHER: Partly Cloudy 58°

MONITORING WELL ID: P-56 SAMPLE ID: P-56-ROX-041515

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 65.82 ft
Depth to Water (btoc): 48.05 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 40.82 ft
Screen Length): 25 ft

Water Column Height (do not include LNAPL or DNAPL): 17.77 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 56.94 ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 890.12* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,610 mL
Ambient PID/FID Reading: 0 ppm
Wellbore PID/FID Reading: 0.1 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	*	Temp (°C)
0	1144	48.07	COLORLESS	SLIGHT	6.61	1.389	-82	0.08	7.067	1.42	23.55
800	1146	↓	↓	↓	6.63	1.396	-90	0.02	-13.15	1.14	23.42
1600	1148				6.64	1.407	-95	-0.02	-12.14	1.19	23.06
2400	1150				6.65	1.410	-98	-0.04	2.281	1.23	22.86
3600	1153				6.65	1.412	-100	-0.05	12.87	1.08	22.75
4400	1155				6.65	1.411	-102	-0.06	4.600	1.42	22.76

E. Schumacher 4-15-15

Start Time: 1144 Elapsed Time (min): 12 MINS Water Quality Meter ID & SN: TROLL 9500 – R26431

Stop Time: 1156 Average Purge Rate (mL/min): 400 Date Calibrated: 4-15-15

SAMPLING DATA

Sample Date: 4-15-15 Sample Time: 1200 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: EB @ 10:00 FOR FA01858

VOA Vials, No Headspace ☒ Initials: ES / DC

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500
8.7 GALS TO BE PURGED FOR WRR
* FIRST READING WITH TROLL 9500, SECOND READING WITH LAMONTTE 20/20 Total Purge Volume: 4400 mL
WELL IS BEHAVING LIKE ITS UNDER VACUUM

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: DChase/MJohnson

DATE: 4-20-15 WEATHER: cloudy 60°F

MONITORING WELL ID: P-57 SAMPLE ID: P57-ROX-042015

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 54.19 ft
Depth to Water (btoc): 48.73 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 44.19 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 5.46 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at: —
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 51.46 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell: 854.42* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,563 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	1045	49.57	colorless	none	6.49	1.312	-52	0.44	2.147	22.91
1200	1049	49.73	colorless	none	6.53	1.318	-68	0.22	1.774	22.69
2100	1051	49.81	colorless	none	6.55	1.322	-77	0.14	1.761	22.73
3000	1054	49.88	colorless	none	6.56	1.322	-84	0.11	1.711	22.83
3900	1057	49.93	colorless	none	6.57	1.322	-89	0.09	1.814	22.82
4800	1100	49.95	colorless	none	6.58	1.319	-93	0.08	1.797	22.71

Start Time: 1045 Elapsed Time (min): 15 Water Quality Meter ID & SN: TROLL 9500 - P25513

Stop Time: 1100 Average Purge Rate (mL/min): 300 Date Calibrated: 4-20-15

SAMPLING DATA

Sample Date: 4-20-15 Sample Time: 1105 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: none

VOA Vials, No Headspace ☑ Initials: DAC MJ

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

Total Purge Volume: 4800 mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: DShael McJohnson

DATE: 4-20-15 WEATHER: cloudy 60°F

MONITORING WELL ID: P-58 SAMPLE ID: P58-ROX-042015

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 65.21 ft
Depth to Water (btoc): 46.67 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 40.21 ft
Screen Length): 25 ft

Water Column Height (do not include LNAPL or DNAPL): 18.54 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at: —
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at: 55.94 ft btoc
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = ft btoc

Volume of Flow Through Cell : 876.73* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,630 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	1317	46.87	colorless	moderate	6.55	1.542	-33	0.27	9.889	21.30
1200	1320	↓	↓	↓	6.51	1.530	-39	0.16	4.698	21.70
2000	1322				6.49	1.521	-44	0.11	4.606	21.83
3200	1325				6.47	1.519	-48	0.09	4.525	21.90

DMC

Start Time: 1317 Elapsed Time (min): 8 Water Quality Meter ID & SN: TROLL 9500 – R25513

Stop Time: 1325 Average Purge Rate (mL/min): 400 Date Calibrated: 4-20-15

SAMPLING DATA

Sample Date: 4-20-15 Sample Time: 1330 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: none

VOA Vials, No Headspace ☒ Initials: DMC MJ

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

well behaving as if under vacuum

Total Purge Volume: 3200 mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: Eric Schumacher / Darcy Chase

DATE: 4-16-15 WEATHER: Sunny 82°

MONITORING WELL ID: P-59 SAMPLE ID: P59-ROX-041615

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 72.91 ft
Depth to Water (btoc): 48.83 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 47.91 ft
Screen Length): 25 ft

Water Column Height (do not include LNAPL or DNAPL): 24.08 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 60.87 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = ft btoc

Volume of Flow Through Cell : 912.44* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,737 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	1519	48.83	colorless	slight	6.75	1.457	-72	0.11	11.50	24.99
1200	1522	↓	↓	↓	6.08	1.461	-77	0.08	18.01	24.64
2000	1524				6.65	1.470	-81	0.09	27.72	24.55
2800	1526				6.64	1.471	-84	0.08	11.27	24.51
4000	1529				6.62	1.476	-87	0.05	9.548	24.48

Start Time: 1519 Elapsed Time (min): 10 Water Quality Meter ID & SN: TROLL 9500 – R25513

Stop Time: 1529 Average Purge Rate (mL/min): 400 Date Calibrated: 4-16-15

SAMPLING DATA

Sample Date: 4-16-15 Sample Time: 1535 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: NONE

VOA Vials, No Headspace [X] Initials: ES DC

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

WRR rig & purge: 3.93 gal x 3 = 11.77 gal

Total Purge Volume: 4000 mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: L. Rathnow

DATE: 4/8/15 WEATHER: Cloudy 65°F

MONITORING WELL ID: P-60-12S (PERCHED) SAMPLE ID: —

INITIAL DATA

Well Diameter): 0.75 in 21.40 ATB
Total Well Depth (btoc): ~~23.84~~ ft
Depth to Water (btoc): NE ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 13.84 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 0.0 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : — mL
Minimum Purge Volume = (3 x Flow Cell Volume): — mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.2 ppm

PURGE DATA

Pump Type: —

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)

Start Time: — Elapsed Time (min): — Water Quality Meter ID & SN: TROLL 9500 –

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

SAMPLING DATA

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

Sample Method: Peristaltic Pump / Low Flow Sample Flow Rate (mL/min): — QA/QCSamples: —

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

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500 No water. No sample collected

Total Purge Volume: — mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: L. Rathnow

DATE: 4/8/15 WEATHER: Cloudy 65°F

MONITORING WELL ID: P-60-13S (PERCHED) SAMPLE ID: —

INITIAL DATA

Well Diameter): 0.75 in 19.09 BTB
Total Well Depth (btoc): ~~20.00~~ ft
Depth to Water (btoc): 17.52 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 10.00 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): ~~1.57~~ 1.57 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at: —
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at: —
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : — mL
Minimum Purge Volume = (3 x Flow Cell Volume): — mL
Ambient PID/FID Reading: 0.1 ppm
Wellbore PID/FID Reading: 0.1 ppm

PURGE DATA

Pump Type: —

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)

Start Time: — Elapsed Time (min): — Water Quality Meter ID & SN: TROLL 9500 --

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

SAMPLING DATA

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

Sample Method: Peristaltic Pump / Low Flow Sample Flow Rate (mL/min): — QA/QCSamples: —

VOA Vials, No Headspace ☐ Initials: —

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

19.09ft - 17.52ft = 1.57ft

1.57ft x 0.041ft/gal = 0.06 gal Not enough water to sample per SOP. Total Purge Volume: — mL

—

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: DChase/ESchumacher

DATE: 4-14-15 WEATHER: pdoudy 65-70°F

MONITORING WELL ID: P-66 SAMPLE ID: P66-ROX-041415

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 59.72 ft
Depth to Water (btoc): 38.27 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 34.72 ft
Screen Length): 25 ft

Water Column Height (do not include LNAPL or DNAPL): 21.45 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 49.00 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 845.49* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,536 mL
Ambient PID/FID Reading: 0.1 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs) *		Temp (°C)
0	16:26	38.27	COLORLESS	SLIGHT	6.57	1.084	-58	0.62	12.73	8.60	20.63
1200	16:29	↓	↓	↓	6.51	1.085	-63	0.16	32.91	8.55	20.37
2000	16:31				6.51	1.071	-67	0.05	23.99	8.50	20.32
2800	16:33				6.50	1.058	-69	0.01	29.79	7.24	20.30

4-14-15

Start Time: 1626 Elapsed Time (min): 8MINS Water Quality Meter ID & SN: TROLL 9500 – RZ6431

Stop Time: 1634 Average Purge Rate (mL/min): 400 Date Calibrated: 4-13-15

SAMPLING DATA

Sample Date: 4-14-15 Sample Time: 1640 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: DUP

VOA Vials, No Headspace ☒ Initials: ES/DC

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

* FIRST READING TROLL 9500, SECOND READING LAMONTTE 20/20

Total Purge Volume: 2800 mL

LOW FLOW GROUNDW[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: Erik Arthur, Jordan Peters

DATE: 4-13-15 WEATHER: Partly Cloudy 70°

MONITORING WELL ID: P-68 SAMPLE ID:

INITIAL DATA

Well Diameter: 2 in
Total Well Depth (btoc): 70.26 ft
Depth to Water (btoc): 46.61 ft
Depth to LNAPL/DNAPL (btoc): 46.52 ft
Depth to Top of Screen (btoc): 45.26 ft
Screen Length): 25 ft

Water Column Height (do not include LNAPL or DNAPL): — ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : — mL
Minimum Purge Volume = (3 x Flow Cell Volume): — mL
Ambient PID/FID Reading: — ppm
Wellbore PID/FID Reading: 4.1 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)

4-13-15

Start Time: N/A Elapsed Time (min): N/A Water Quality Meter ID & SN: TROLL 9500 – —

Stop Time: N/A Average Purge Rate (mL/min): N/A Date Calibrated: 4-13-15

SAMPLING DATA

Sample Date: 4-13-15 Sample Time: N/A Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): N/A QA/QCSamples: NONE

VOA Vials, No Headspace ☐ Initials: N/A

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

* LNAPL PRESENT, NO SAMPLE TAKEN

Total Purge Volume: 0 mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: Eric Schumacher / Darcy Chase

DATE: 4-15-15 WEATHER: Cloudy 73°

MONITORING WELL ID: P-74 SAMPLE ID: P74-ROX-041515

INITIAL DATA

Well Diameter): 4 in
Total Well Depth (btoc): 69.43 ft
Depth to Water (btoc): 44.61 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 44.43 ft
Screen Length): 25 ft

Water Column Height (do not include LNAPL or DNAPL): 24.82 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 57.02 ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 890.12* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,670 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs) *		Temp (°C)
0	1522	44.97	COLORLESS	NONE	7.57	1.889	15	3.76	36.00	NM	19.08
800	1524	↓	↓	↓	7.52	1.887	3	3.69	-8.167	5.02	19.15
2000	1527	↓	↓	↓	7.49	1.885	-7	3.64	39.19	6.10	19.10
2900	1529	↓	↓	↓	7.49	1.885	-15	3.60	38.94	5.99	19.23

4-15-15

Start Time: 1522 Elapsed Time (min): 9 MINS Water Quality Meter ID & SN: TROLL 9500 -- R26431

Stop Time: 1531 Average Purge Rate (mL/min): 400 Date Calibrated: 4-15-15

SAMPLING DATA

Sample Date: 4-15-15 Sample Time: 1540 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: NONE

VOA Vials, No Headspace ☒ Initials: ES/DC

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

* FIRST READING FROM TROLL 9500, SECOND READING FROM LAMONTTE 20/20

Total Purge Volume: 2800 mL

LOW FLOW GROUNDW . SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: DPhase/ESchumacher

DATE: 4-17-15 WEATHER: ~~p.cloudy 68-70°F~~ ~~DC~~ sunny 80°F

MONITORING WELL ID: P-93A SAMPLE ID: P93A-ROX-0417-15

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 63.17 ft
Depth to Water (btoc): 47.02 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 48.17 ft
Screen Length): 15 ft

Water Column Height (do not include LNAPL or DNAPL): 16.15 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 55-67 ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at: —
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = ____ ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 854.42* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,563 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: ~~Dedicated Well Wizard~~ monsoon

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
STABLE: (over 3 readings)					+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C
0	1445	47.37	cloudy	none	6.95	1.691	51	0.55	101.5	22.03
900	1448	↓	↓	↓	6.80	1.691	51	0.36	71.49	21.83
1800	1451	↓	↓	↓	6.76	1.688	50	0.20	44.14	21.70
2700	1454	47.30	↓	↓	6.74	1.687	46	0.27	30.08	21.77
4200	1459	↓	↓	↓	6.79	1.659	30	0.60	13.76	21.64
4900	1501	↓	↓	↓	6.74	1.644	19	0.30	10.97	21.67
5700	1504	↓	↓	↓	6.73	1.626	6	0.23	9.370	21.54
6600	1507	↓	↓	↓	6.73	1.599	-7	0.18	9.300	21.51

4-17-15

Start Time: 1445 Elapsed Time (min): 23 mins Water Quality Meter ID & SN: TROLL 9500 – R25513

Stop Time: 1508 Average Purge Rate (mL/min): 300 Date Calibrated: 4-17-15

SAMPLING DATA

Sample Date: 4-17-15 Sample Time: 1510 Lab Analysis: VOC, SVOC

Sample Method: ~~Bladder Pump~~ monsoon / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: none

VOA Vials, No Headspace ☒ Initials: ES DC

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

WRF purge vol req'd: 2.163 gal x 3 = 7.9 gal

Total Purge Volume: 6600 mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: DChase/ESchumacher

DATE: 4-16-15 WEATHER: pcloudy 70°F

MONITORING WELL ID: P-93B SAMPLE ID: P93B-ROX-041615

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 76.60 ft
Depth to Water (btoc): 48.42 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 74.60 ft
Screen Length): 2 ft

Water Column Height (do not include LNAPL or DNAPL): 28.18 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = / ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 75.60 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = / ft btoc

Volume of Flow Through Cell : 2,352.92* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 7,059 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 1.2 ppm

PURGE DATA

Pump Type: Dedicated Well Wizard

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	1149	48.42	COLORLESS	MODERATE	6.71	1.372	-56	2.51	16.67	18.61
2000	1154				6.77	1.354	-75	1.92	314.1	18.50
4400	1200				6.79	1.345	-83	2.40	40.44	18.43
6800	1206				6.81	1.378	-88	1.87	18.00	18.48
9200	1212				6.82	1.383	-91	2.14	126.2	18.45
11,600	1218				6.82	1.399	-93	2.13	14.68	18.50

4-16-15

Start Time: 1149 Elapsed Time (min): 31 MINS Water Quality Meter ID & SN: TROLL 9500 – R25513

Stop Time: 1219 Average Purge Rate (mL/min): 400 Date Calibrated: 4-16-15

SAMPLING DATA

Sample Date: 4-16-15 Sample Time: 1225 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: DUP

VOA Vials, No Headspace [X] Initials: ES DC

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

TOOK CONFIRMATION TURBIDITY READING USING LAMONTTE 20/20 = 2.00 (NTUs)

Total Purge Volume: 11,600 mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: DChase / BSchumacher

DATE: 4-16-15 WEATHER: Sunny 73°

MONITORING WELL ID: P-93C SAMPLE ID: P93C-ROX-041615

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 96.26 ft
Depth to Water (btoc): 48.22 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 94.26 ft
Screen Length): 2 ft

Water Column Height (do not include LNAPL or DNAPL): 48.04 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 95.26 ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 1,046.34* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 3,139 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 63.2 ppm

PURGE DATA

Pump Type: ~~Dedicated Well Wizard~~ monsoon

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	1431	48.23	colorless	slight	7.49	1.162	-70	0.10	0.4616	20.67
1600	1435	↓	↓	↓	7.34	1.157	-76	0.08	0.6896	20.29
3200	1439				7.25	1.147	-80	0.07	0.3814	20.32
3800	1440				7.19	1.144	-83	0.06	0.4452	20.18

Start Time: 1431 Elapsed Time (min): 11 Water Quality Meter ID & SN: TROLL 9500 – R25513

Stop Time: 1440 Average Purge Rate (mL/min): 400 Date Calibrated: 4-16-15

SAMPLING DATA

Sample Date: 4-16-15 Sample Time: 1445 Lab Analysis: VOC, SVOC

Sample Method: ~~Bladder Pump~~ monsoon / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: none

VOA Vials, No Headspace ☒ Initials: ES, DC

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

WPP purge vol reqd: 7.83 gal x 3 = 23.5 gal

Total Purge Volume: 3800 mL

LOW FLOW GROUNDW[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW | PROJECT NUMBER: 21563720.03002 | FIELD PERSONNEL: DChase/~~FSchumacher~~ MJohnson

DATE: ~~4-16-15~~ 4/20/15 | WEATHER: ~~p.cloudy 70°F~~ p.cloudy 60°F

MONITORING WELL ID: P-93D | SAMPLE ID:

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 128.00 ft
Depth to Water (btoc): ~~48.63~~ 48.52 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 125.75 ft
Screen Length): 2 ft

Water Column Height (do not include LNAPL or DNAPL): ~~79.37~~ 79.48 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 126.75 ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 1,193.64* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 3,581 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.3 ~~0.0~~ ppm

PURGE DATA

Pump Type: ~~Monsoon Stainless Steel Submersible Pump~~ Dedicated Well Wizard

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	1430	48.52	colorless	none	7.06	1.816	-60	1.96	4.049	16.09
1300	1443				7.00	1.819	-70	1.56	2.587	17.19
2600	1456				6.98	1.861	-77	1.20	2.055	17.45
3800	1508				6.98	1.806	-82	1.01	1.849	17.65
4800	1518				6.98	1.814	-86	0.90	2.710	17.88
6100	1531				6.99	1.449	-87	0.87	3.028	17.25
7200	1542				6.99	1.588	-88	0.83	5.713	16.91
8500	1555				6.99	1.711	-89	0.81	9.372	16.58
9700	1607				6.99	1.803	-89	0.82	13.23	16.31
10800	1618				6.99	1.862	-89	0.84	35.18	16.26
12000	1630				6.99	1.931	-89	0.82	48.24	16.10

Start Time: 1430 | Elapsed Time (min): 120 min | Water Quality Meter ID & SN: TROLL 9500 -- R25513
Stop Time: 1630 | Average Purge Rate (mL/min): 100 | Date Calibrated: 4-20-15

SAMPLING DATA

Sample Date: 4-20-15 | Sample Time: 1635 | Lab Analysis: VOC, SVOC
Sample Method: ~~Monsoon Pump~~ / Low Flow Bladder Pump | Sample Flow Rate (mL/min): 100 | QA/QCSamples: none
VOA Vials, No Headspace ☑ Initials: DAC MJ

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500
FD MF = 4/20/15 sampling

Total Purge Volume: 12000 mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: Eric Schumacher / Darcy Chase

DATE: 4-17-15 WEATHER: Sunny 76°

MONITORING WELL ID: P-114 SAMPLE ID: P114-ROX-041715

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 52.67 ft
Depth to Water (btoc): NM/33.39 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 32.67 ft
Screen Length): 20 ft

Water Column Height (do not include LNAPL or DNAPL): 19.28 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 43.03 ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 1,596.22* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 4,789 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Dedicated Well Wizard

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	* Depth to Water (ft)	Color	* Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	1117	NM	ORANGE/S	NONE	9.79	1.165	-88	3.61	89.88	20.52
1500	1120		CLOUDY		9.02	1.096	-86	3.03	227.1	20.39
3500	1124				8.41	1.118	-81	2.61	56.84	20.31
5000	1127				7.99	1.146	-89	2.38	49.73	20.30
6500	1130				7.69	1.167	-96	2.90	150.9	20.30
8000	1133				7.55	1.182	-100	2.44	68.12	20.31
9500	1136				7.43	1.193	-101	2.31	55.53	20.27
11,500	1140				7.33	1.199	-100	2.55	91.41	20.33
13,000	1143				7.27	1.208	-100	2.30	74.35	20.36
14,500	1146				7.23	1.212	-99	2.42	57.91	20.38
16000	1149				7.18	1.219	-99	2.11	54.24	20.39
18500	1154				7.16	1.218	-98	2.65	45.40	20.37
19500	1156				7.14	1.224	-97	2.85	114.1	20.44
21500	1200				7.13	1.227	-96	3.37	35.08	20.45
23000	1203				7.14	1.223	-96	2.73	46.74	20.51
24500	1206	↓	↓	↓	7.12	1.218	-95	2.44	87.39	20.50

Start Time: 1117 Elapsed Time (min): 126 Water Quality Meter ID & SN: TROLL 9500 -- K25513

Stop Time: 1323 Average Purge Rate (mL/min): 500 Date Calibrated: 4-17-15

SAMPLING DATA

Sample Date: 4-17-15 Sample Time: 1330 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 500 QA/QCSamples: NONE

VOA Vials, No Headspace [X] Initials: ES/DC

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500
* Water level couldn't be measured, utilized quarterly gauging from P-116
*ODOR, NOT FOR SURE IF FROM SURROUNDING AREA.

Total Purge Volume: 63,000 mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: 2Q15 ROX GW PROJECT NUMBER: 215637.20.03002 FIELD PERSONNEL: DChase/ EShumacher

DATE: 4-17-15 MONITORING WELL ID: P114-ROX-041715

Purge Volume (mL)	Time	Depth to Water (ft) *	Color	Odor €	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp. (°C)
26,000	1209	N/M	CLOUDY	NONE	7.12	1.220	-95	2.44	66.05	20.45
27,500	1212				7.12	1.232	-94	2.50	88.34	20.32
30,500	1218				7.10	1.243	-92	2.46	163.6	20.41
32,500	1222				7.10	1.251	-90	2.54	145.8	20.47
34000	1225				7.09	1.253	-89	2.36	135.3	20.47
36000	1229				7.07	1.254	-88	2.37	112.3	20.49
37000	1231				7.06	1.251	-88	3.00	126.8	20.49
37500	1232				7.05	1.249	-87	2.50	110.5	20.44
39000	1235				7.03	1.244	-87	2.43	64.78	20.35
40500	1238				7.03	1.239	-88	2.46	60.50	20.39
42500	1242				7.00	1.243	-87	2.40	312.3	20.49
44000	1245				7.01	1.239	-88	2.49	60.44	26.57
45,500	1248				7.01	1.242	-88	2.60	42.42	20.52
47,000	1251				6.98	1.215	-86	2.38	147.6	20.46
48,500	1254				6.99	1.245	-86	2.33	61.09	20.48
51 000	1259				6.99	1.246	-87	2.06	50.97	20.51
52 000	1301				6.97	1.246	-86	1.97	59.87	20.55
53 500	1304				6.98	1.248	-86	209	48.83	20.45
55 000	1307				6.98	1.245	-86	2.06	38.52	20.47
57,000	1311				6.97	1.245	-85	1.99	57.19	20.47
58,500	1314				6.97	1.243	-85	2.20	37.82	20.48
60,500	1318				6.97	1.241	-85	2.02	78.10	20.47
61500	1320				6.97	1.235	-84	2.32	74.88	20.48
63000	1323				6.97	1.224	-83	2.30	74.05	20.49

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: DChase/ESchumacher

DATE: 4-13-15 WEATHER: cloudy 60°F

MONITORING WELL ID: ROST-3-MW SAMPLE ID: ROST3MW - ROX - 041315

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 48.06 ft
Depth to Water (btoc): 43.43 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 37.81 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 4.63 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 45.75 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

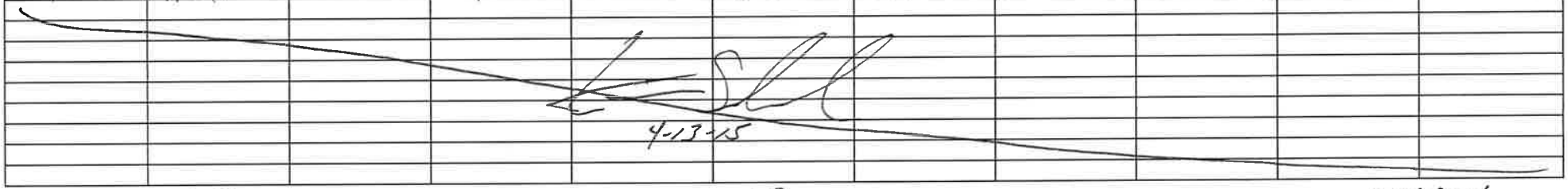
Volume of Flow Through Cell : 827.64* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,483 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.3 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	11:13	43.58	COLORLESS	SLIGHT	6.87	1.154	-109	0.32	33.90	17.56
900	11:16	43.53	↓	↓	6.84	1.155	-114	0.17	6.864	17.62
1800	11:19	↓			6.83	1.154	-117	0.11	22.87	17.66
2100	11:22				6.83	1.153	-119	0.08	4.736	17.65
3000	11:25				6.82	1.152	-121	0.06	35.22	17.63
3900	11:28				6.82	1.152	-122	0.06	32.04	17.64
4800	11:31				6.82	1.152	-123	0.04	5.326	17.70



Start Time: 11:13 Elapsed Time (min): 18 Water Quality Meter ID & SN: TROLL 9500 – R26241

Stop Time: 11:31 Average Purge Rate (mL/min): 100 Date Calibrated: 4-13-15

SAMPLING DATA

Sample Date: 4-13-15 Sample Time: 11:35 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: NONE

VOA Vials, No Headspace ☒ Initials: MAC ES

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

Total Purge Volume: 4800 mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: DChase/ESchumacher

DATE: 4-13-15 WEATHER: cloudy 60°F

MONITORING WELL ID: ROST-4-PZ(C) SAMPLE ID: ROST4PZC-ROX-041315

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 45.20 ft
Depth to Water (btoc): 43.00 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 34.95 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 2.20 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = ~~43.20~~ ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = ~~43.20~~ ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = ~~43.20~~ 44.20 ft btoc

Volume of Flow Through Cell : 814.25* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,443 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)
0	9:37	43.31	cloudy	none	6.79	2.174	-169	0.19	-0.3551	17.81
800	9:45	43:17			6.78	2.179	-174	0.10	26.88	18.30
1600	9:53	43:21			6.77	2.186	-168	0.12	29.54	18.57
2400	10:02	43.24			6.76	2.193	-165	0.09	17.08	19.23
3200	10:10	↓			6.76	2.196	-165	0.07	10.78	19.42
4000	10:18	43:21	↓	↓	6.77	2.204	-165	0.06	-1.606	19.34

Start Time: 9:37 Elapsed Time (min): 41 Water Quality Meter ID & SN: TROLL 9500 – R26431

Stop Time: 10:18 Average Purge Rate (mL/min): 100 Date Calibrated: 4-13-15

SAMPLING DATA

Sample Date: 4-13-15 Sample Time: 10:20 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 100 QA/QCSamples: NONE

VOA Vials, No Headspace ☒ Initials: AC ES

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

~~*~~ had to drop pump to 1ft from bottom in order to purge

Total Purge Volume: 4000 mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: L. Rathnow

DATE: 4/8/15 WEATHER: Cloudy 75°F

MONITORING WELL ID: ROST-5-PZ (PERCHED) SAMPLE ID: —

INITIAL DATA

Well Diameter): 1 in 22.99
Total Well Depth (btoc): ~~23.20~~ ft
Depth to Water (btoc): NE ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 13.20 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): — ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : — mL
Minimum Purge Volume = (3 x Flow Cell Volume): — mL
Ambient PID/FID Reading: 0.2 ppm
Wellbore PID/FID Reading: 0.9 ppm

PURGE DATA

Pump Type: —

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)

Start Time: —
Stop Time: —
Elapsed Time (min): —
Average Purge Rate (mL/min): —
Water Quality Meter ID & SN: TROLL 9500 — —
Date Calibrated: —

SAMPLING DATA

Sample Date: —
Sample Time: —
Lab Analysis: VOC, SVOC
Sample Method: Peristaltic Pump / Low Flow
Sample Flow Rate (mL/min): —
QA/QCSamples: —
VOA Vials, No Headspace ☐ Initials: —

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500 Well Dry. No sample collected

Total Purge Volume: — mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: L. Rathnow

DATE: 4/8/15 WEATHER: Cloudy 75°F

MONITORING WELL ID: ROST-7-PZ (PERCHED) SAMPLE ID: —

INITIAL DATA

Well Diameter): 1 in 28.85
Total Well Depth (btoc): ~~30.00~~ ft
Depth to Water (btoc): 21.55 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 20.00 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 7.30 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at: —
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = ____ ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at: —
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = ____ ft btoc

Volume of Flow Through Cell : — mL
Minimum Purge Volume = (3 x Flow Cell Volume): — mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 2.9 ppm

PURGE DATA

Pump Type: —

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)

Start Time: —
Stop Time: —
Elapsed Time (min): —
Average Purge Rate (mL/min): —
Water Quality Meter ID & SN: TROLL 9500 --
Date Calibrated: —

SAMPLING DATA

Sample Date: —
Sample Time: —
Lab Analysis: VOC, SVOC
Sample Method: Peristaltic Pump / Low Flow
Sample Flow Rate (mL/min): —
QA/QCSamples: —
VOA Vials, No Headspace ☐ ~~Initials:~~ —

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500
28.85ft - 21.55ft = 7.30ft
7.30ft × 0.041gal/ft = 0.30gal Not enough water to sample per SOP.

Total Purge Volume: — mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: L. Rothnow

DATE: 4/8/15 WEATHER: Cloudy 75°F

MONITORING WELL ID: ROST-10-PZ (PERCHED) SAMPLE ID: —

INITIAL DATA

Well Diameter): 1 in 19.88
Total Well Depth (btoc): 20.00 ft
Depth to Water (btoc): NE ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 10.00 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): — ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : — mL
Minimum Purge Volume = (3 x Flow Cell Volume): — mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 20.2 ppm

PURGE DATA

Pump Type: —

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)

Start Time: —
Stop Time: —
Elapsed Time (min): —
Average Purge Rate (mL/min): —
Water Quality Meter ID & SN: TROLL 9500 --
Date Calibrated: —

SAMPLING DATA

Sample Date: —
Sample Time: —
Lab Analysis: VOC, SVOC
Sample Method: Peristaltic Pump / Low Flow
Sample Flow Rate (mL/min): —
QA/QCSamples: —
VOA Vials, No Headspace ☐ Initials: —

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500 Well Dry. No sample collected

Total Purge Volume: — mL

LOW FLOW GROUNDW SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: L. Rathnow

DATE: 4/8/15 WEATHER: Cloudy 75°F

MONITORING WELL ID: ROST-21-PZ (PERCHED) SAMPLE ID: —

INITIAL DATA

Well Diameter): 1 in 19.85
Total Well Depth (btoc): ~~20.00~~ ft
Depth to Water (btoc): 19.70 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 10.00 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): ~~1.85~~ 0.15 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : — mL
Minimum Purge Volume = (3 x Flow Cell Volume): — mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 779.7 ppm

PURGE DATA

Pump Type: —

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs)	Temp (°C)

Start Time: — Elapsed Time (min): — Water Quality Meter ID & SN: TROLL 9500 --

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

SAMPLING DATA

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

Sample Method: Peristaltic Pump / Low Flow Sample Flow Rate (mL/min): — QA/QCSamples: —

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

COMMENTS:

* Flow through cell volume calculated by rugged reader used with Troll 9500

19.85ft - 19.70ft = 0.15ft

0.15ft × 0.041 gal/ft = 0.006 gal Not enough water to sample per SAP Total Purge Volume: — mL

LOW FLOW GROUNDW[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q15 GW PROJECT NUMBER: 21563720.03002 FIELD PERSONNEL: Eric Schumacher / Darcy Chase

DATE: 4-15-15 WEATHER: Partly Cloudy 58°

MONITORING WELL ID: T-12 SAMPLE ID: T12-BOX-041515

INITIAL DATA

Well Diameter): 6 in
Total Well Depth (btoc): 72.46 ft
Depth to Water (btoc): 46.73 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 46.46 ft
Screen Length): 26 ft

Water Column Height (do not include LNAPL or DNAPL): 25.73 ft btoc
If Depth to Top of Screen is > Depth to Water, Place Pump at:
Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 59.60 ft btoc
If Depth to Top of Screen is < Depth to Water, Place Pump at:
Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = ft btoc

Volume of Flow Through Cell : 912.44* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2,737 mL
Ambient PID/FID Reading: 0 ppm
Wellbore PID/FID Reading: 0.2 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/-3%	+/-20	+/-0.2 mg /L or +/-10%	<10 or +/-10%	+/- 0.2 °C

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Specific Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTUs) *		Temp (°C)
0	~~12:41~~	46.72	COLORLESS	SLIGHT	6.83	1.090	-92	0.11	-5.880	2.88	20.41
1200	12:44				6.80	1.095	-96	0.02	-6.873	2.41	20.47
2400	12:47				6.79	1.100	-100	-0.03	-6.022	1.17	20.60
3600	12:50				6.79	1.100	-103	-0.04	-13.15	0.85	20.76
4200	12:53				6.79	1.097	-105	-0.05	-9.057	0.99	21.04
5200	12:56				6.78	1.093	-106	-0.06	28.44	1.19	20.79
6400	12:59				6.77	1.081	-106	-0.06	33.55	1.30	20.61
7600	1302				6.76	1.081	-107	-0.07	38.91	0.74	20.51
8800	1305				6.76	1.079	-107	-0.08	73.61	1.51	20.42

E Schl 4-15-15

Start Time: 12:41 Elapsed Time (min): ~~130~~ ES 26 MINS Water Quality Meter ID & SN: TROLL 9500 -- R26431

Stop Time: 13:06 Average Purge Rate (mL/min): 400 Date Calibrated: 4-15-15

SAMPLING DATA

Sample Date: 4-15-15 Sample Time: 1310 Lab Analysis: VOC, SVOC

Sample Method: Monsoon Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: NONE

VOA Vials, No Headspace ☒ Initials: ES/DC

COMMENTS:
* FIRST READING WITH TROLL 9500, SECOND READING WITH LAMONTTE 20/20

Total Purge Volume: 8800 mL

Appendix B.
Data Review Forms and Laboratory Analytical Reports

Roxana Groundwater Quarterly – 2nd Quarter 2015 Data Review

Laboratory SDG: MC37809

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 4/21/2015

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2014

Sample Identification	Sample Identification
MW1-ROX-040615	MW12-ROX-040615
TB-ROX-040615-HCL	TB-ROX-040615-ST

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, although not indicated in the laboratory case narrative, the SVOC bis(2-ethylhexyl)phthalate and the PAH phenanthrene were detected in the method blanks. This issue is addressed further in the appropriate section below. Additionally, the initial calibration verifications for 2-hexanone and hexachlorocyclopentadiene exceeded 30 percent difference (%D), and the continuing calibration verification for 4-bromofluorobenzene exceeded 15%D.

The cooler receipt form indicated that one of one cooler was received by the laboratory at a temperature of 0.8°C, which is outside the 4ºC ± 2ºC criteria. Samples were received in good condition; therefore, no qualification of data was required.

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
OP42604-MB	SVOCs	bis(2-Ethylhexyl)phthalate	0.55 µg/L
OP42605-MB	PAHs	Phenanthrene	0.019 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. Please see Section 12.0 of this review for additional qualifications regarding sample associated with phenanthrene

in method blank OP42605-MB.

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

Yes

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

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, professional judgment was used to qualify as estimated, however not reject, data that was associated with phenanthrene in method blank OP42605-MB, due to comparable historical detections.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW12-ROX-040615	PAHs	Phenanthrene	-	**U**

New England ACCUTEST LABORATORIES

04/21/15

Technical Report for

Shell Oil

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana,

21563720.03002

Accutest Job Number: MC37809

Sampling Date: 04/06/15

Report to:

AECOM, INC.

Melissa.mansker@urs.com

ATTN: Melissa Mansker

Reviewed 4/21/2015

Total number of pages in report: 67

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Reza Tand
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

Sections: 1 2 3 4 5 6 7 8

Table of Contents

Section 1: Sample Summary 3
Section 2: Case Narrative/Conformance Summary 4
Section 3: Summary of Hits 6
Section 4: Sample Results 7
4.1: MC37809-1: MW1-ROX-040615 8
4.2: MC37809-2: MW12-ROX-040615 15
4.3: MC37809-3: TB-ROX-040615-HCL 22
4.4: MC37809-4: TB-ROX-040615-ST 25
Section 5: Misc. Forms 26
5.1: Chain of Custody 27
5.2: Sample Tracking Chronicle 29
5.3: Internal Chain of Custody 30
Section 6: GC/MS Volatiles - QC Data Summaries 31
6.1: Method Blank Summary 32
6.2: Blank Spike Summary 35
6.3: Matrix Spike/Matrix Spike Duplicate Summary 38
6.4: Internal Standard Area Summaries 41
6.5: Surrogate Recovery Summaries 42
Section 7: GC/MS Semi-volatiles - QC Data Summaries 43
7.1: Method Blank Summary 44
7.2: Blank Spike Summary 47
7.3: Matrix Spike/Matrix Spike Duplicate Summary 50
7.4: Internal Standard Area Summaries 53
7.5: Surrogate Recovery Summaries 60
Section 8: GC Volatiles - QC Data Summaries 62
8.1: Method Blank Summary 63
8.2: Blank Spike Summary 64
8.3: Matrix Spike/Matrix Spike Duplicate Summary 65
8.4: Surrogate Recovery Summaries 66
8.5: GC Surrogate Retention Time Summaries 67

Sample Summary

Shell Oil

Job No: MC37809

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Project No: 21563720.03002

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
MC37809-1	04/06/15	11:45	DCBT	04/07/15	AQ	Ground Water	MW1-ROX-040615
MC37809-2	04/06/15	14:20	DCBT	04/07/15	AQ	Ground Water	MW12-ROX-040615
MC37809-3	04/06/15	00:00	DCBT	04/07/15	AQ	Trip Blank Water	TB-ROX-040615-HCL
MC37809-4	04/06/15	00:00	DCBT	04/07/15	AQ	Trip Blank Water	TB-ROX-040615-ST

ACCUTEST LABORATORIES

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	MC37809
Site:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central	**Report Date**	4/21/2015 9:11:27 AM

2 Sample(s) and 2 Trip Blank(s) were collected on 04/06/2015 and were received at Accutest on 04/07/2015 properly preserved, at 0.8 Deg. C and intact. These Samples received an Accutest job number of MC37809. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report. 1-Chlorohexane, Benzenethiol, Dibenz(a,h)acridine, Indene, and Quinoline were searched in the library search and reported only if detections were found.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix AQ **Batch ID:** MSV1374

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC37808-2MS, MC37808-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- MC37808-2MS/MSD Recovery(s) for 2-Chloroethyl vinyl ether are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Initial calibration verification standard MSV1332-ICV1332 for 2-hexanone exceed 30% Difference (response bias high). Associated samples are non-detect for this compound.

Extractables by GCMS By Method SW846 8270D

Matrix AQ **Batch ID:** OP42604

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC37900-3MS, MC37900-3MSD were used as the QC samples indicated.
- Initial calibration verification MSR1577-ICV1577, file R42796 for Hexachlorocyclopentadiene exceed 30% Difference.
- Matrix Spike Recovery(s) for 2,6-Dinitrotoluene, 4-Nitrophenol are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for 4-Nitrophenol are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for MSD for 2,6-Dinitrotoluene, 4-Nitrophenol, Pentachlorophenol, Pyridine are outside control limits for sample OP42604-MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.
- Initial calibration verification MSW902-ICV902, file W21009 for Hexachlorocyclopentadiene exceed 30% Difference.

Extractables by GCMS By Method SW846 8270D BY SIM

Matrix AQ **Batch ID:** OP42605

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC37900-4MS, MC37900-4MSD were used as the QC samples indicated.
- Calibration standard MS13483-ICV3483 not associate with this job.
- Sample(s) MC37809-2 have compound(s) reported with a "B" qualifier, indicating analyte is found in the associated method blank.

Volatiles by GC By Method SW846 8011

Matrix AQ	Batch ID: OP42634

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC37900-10MS, MC37900-10MSD were used as the QC samples indicated.
- Continuing calibration check standard GBB3418-CC3418, signal #2, file BB62751 for 4-Bromofluorobenzene exceed 15% Dev (response bias high). Associated samples are non-detect for target analytes.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC37809).

Summary of Hits

Job Number: MC37809
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Collected: 04/06/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC37809-1	MW1-ROX-040615					
Methyl Tert Butyl Ether		0.59 J	1.0	0.35	ug/l	SW846 8260C
Butyl benzyl phthalate		0.46 J	5.3	0.26	ug/l	SW846 8270D
Di-n-butyl phthalate		0.44 J	5.3	0.28	ug/l	SW846 8270D
1-Methylnaphthalene		0.018 J	2.1	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		0.035 J	2.1	0.012	ug/l	SW846 8270D BY SIM
MC37809-2	MW12-ROX-040615					
Acetone		26.5	10	2.0	ug/l	SW846 8260C
Fluoranthene		0.019 J	0.11	0.0078	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		0.018 J	2.1	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		0.031 J	2.1	0.012	ug/l	SW846 8270D BY SIM
Phenanthrene		0.020 JB	0.053	0.011	ug/l	SW846 8270D BY SIM
Pyrene		0.016 J	0.11	0.0089	ug/l	SW846 8270D BY SIM
MC37809-3	TB-ROX-040615-HCL					
No hits reported in this sample.						
MC37809-4	TB-ROX-040615-ST					
No hits reported in this sample.						

New England ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW1-ROX-040615		
Lab Sample ID:	MC37809-1	Date Sampled:	04/06/15
Matrix:	AQ - Ground Water	Date Received:	04/07/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38148.D	1	04/16/15	KD	n/a	n/a	MSV1374
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW1-ROX-040615		
Lab Sample ID:	MC37809-1	Date Sampled:	04/06/15
Matrix:	AQ - Ground Water	Date Received:	04/07/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.59	1.0	0.35	ug/l	J
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW1-ROX-040615		
Lab Sample ID:	MC37809-1	Date Sampled:	04/06/15
Matrix:	AQ - Ground Water	Date Received:	04/07/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	116%		72-133%
2037-26-5	Toluene-D8	101%		85-114%
460-00-4	4-Bromofluorobenzene	101%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW1-ROX-040615		
Lab Sample ID:	MC37809-1	Date Sampled:	04/06/15
Matrix:	AQ - Ground Water	Date Received:	04/07/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21444.D	1	04/14/15	KD	04/09/15	OP42604	MSW918
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.3	0.31	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.53	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.49	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	0.36	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	0.62	ug/l	
95-48-7	2-Methylphenol	ND	11	0.31	ug/l	
	3&4-Methylphenol	ND	11	0.47	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.49	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	11	0.36	ug/l	
108-95-2	Phenol	ND	5.3	0.34	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.47	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.47	ug/l	
62-53-3	Aniline	ND	11	0.48	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	0.46	5.3	0.26	ug/l	J
100-51-6	Benzyl Alcohol	ND	11	0.34	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	0.36	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.38	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	0.52	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.44	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.44	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	0.27	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	0.31	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.39	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.40	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.56	ug/l	
132-64-9	Dibenzofuran	ND	2.1	0.26	ug/l	
84-74-2	Di-n-butyl phthalate	0.44	5.3	0.28	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.3	0.30	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW1-ROX-040615		
Lab Sample ID:	MC37809-1	Date Sampled:	04/06/15
Matrix:	AQ - Ground Water	Date Received:	04/07/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.3	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	5.3	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.33	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.26	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.3	0.30	ug/l	
78-59-1	Isophorone	ND	5.3	0.49	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.38	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.43	ug/l	
100-01-6	4-Nitroaniline	ND	11	0.54	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.51	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	0.27	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.26	ug/l	
110-86-1	Pyridine	ND	11	0.38	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	55%		10-79%
4165-62-2	Phenol-d5	39%		10-72%
118-79-6	2,4,6-Tribromophenol	92%		35-138%
4165-60-0	Nitrobenzene-d5	87%		30-116%
321-60-8	2-Fluorobiphenyl	75%		35-107%
1718-51-0	Terphenyl-d14	95%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW1-ROX-040615		
Lab Sample ID:	MC37809-1	Date Sampled:	04/06/15
Matrix:	AQ - Ground Water	Date Received:	04/07/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95080.D	1	04/13/15	MR	04/09/15	OP42605	MSI3556
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.11	0.0079	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.0088	ug/l	
120-12-7	Anthracene	ND	0.11	0.010	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.053	0.025	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.053	0.020	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.011	ug/l	
218-01-9	Chrysene	ND	0.11	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.016	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.0078	ug/l	
86-73-7	Fluorene	ND	0.11	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.021	ug/l	
90-12-0	1-Methylnaphthalene	0.018	2.1	0.013	ug/l	J
91-57-6	2-Methylnaphthalene	0.035	2.1	0.012	ug/l	J
85-01-8	Phenanthrene	ND	0.053	0.011	ug/l	
129-00-0	Pyrene	ND	0.11	0.0089	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	82%		26-121%
321-60-8	2-Fluorobiphenyl	67%		28-107%
1718-51-0	Terphenyl-d14	104%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW1-ROX-040615		
Lab Sample ID:	MC37809-1	Date Sampled:	04/06/15
Matrix:	AQ - Ground Water	Date Received:	04/07/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62759.D	1	04/13/15	NK	04/10/15	OP42634	GBB3418
Run #2							

	Initial Volume	Final Volume
Run #1	37.8 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0057	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0057	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	113%		60-140%
460-00-4	Bromofluorobenzene (S)	102%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW12-ROX-040615		
Lab Sample ID:	MC37809-2	Date Sampled:	04/06/15
Matrix:	AQ - Ground Water	Date Received:	04/07/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38149.D	1	04/16/15	KD	n/a	n/a	MSV1374
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	26.5	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW12-ROX-040615		
Lab Sample ID:	MC37809-2	Date Sampled:	04/06/15
Matrix:	AQ - Ground Water	Date Received:	04/07/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW12-ROX-040615		
Lab Sample ID:	MC37809-2	Date Sampled:	04/06/15
Matrix:	AQ - Ground Water	Date Received:	04/07/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	117%		72-133%
2037-26-5	Toluene-D8	103%		85-114%
460-00-4	4-Bromofluorobenzene	101%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW12-ROX-040615		
Lab Sample ID:	MC37809-2	Date Sampled:	04/06/15
Matrix:	AQ - Ground Water	Date Received:	04/07/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21445.D	1	04/14/15	KD	04/09/15	OP42604	MSW918
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.3	0.31	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.53	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.49	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	0.36	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	0.62	ug/l	
95-48-7	2-Methylphenol	ND	11	0.31	ug/l	
	3&4-Methylphenol	ND	11	0.47	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.49	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	11	0.36	ug/l	
108-95-2	Phenol	ND	5.3	0.34	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.47	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.47	ug/l	
62-53-3	Aniline	ND	11	0.48	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.26	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.34	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	0.36	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.38	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	0.52	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.44	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.44	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	0.27	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	0.31	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.39	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.40	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.56	ug/l	
132-64-9	Dibenzofuran	ND	2.1	0.26	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.3	0.28	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	0.30	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW12-ROX-040615		
Lab Sample ID:	MC37809-2	Date Sampled:	04/06/15
Matrix:	AQ - Ground Water	Date Received:	04/07/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.3	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	5.3	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.33	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.26	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.3	0.30	ug/l	
78-59-1	Isophorone	ND	5.3	0.49	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.38	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.43	ug/l	
100-01-6	4-Nitroaniline	ND	11	0.54	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.51	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	0.27	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.26	ug/l	
110-86-1	Pyridine	ND	11	0.38	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	50%		10-79%
4165-62-2	Phenol-d5	36%		10-72%
118-79-6	2,4,6-Tribromophenol	86%		35-138%
4165-60-0	Nitrobenzene-d5	82%		30-116%
321-60-8	2-Fluorobiphenyl	67%		35-107%
1718-51-0	Terphenyl-d14	94%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW12-ROX-040615		
Lab Sample ID:	MC37809-2	Date Sampled:	04/06/15
Matrix:	AQ - Ground Water	Date Received:	04/07/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95081.D	1	04/13/15	MR	04/09/15	OP42605	MSI3556
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.11	0.0079	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.0088	ug/l	
120-12-7	Anthracene	ND	0.11	0.010	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.053	0.025	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.053	0.020	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.011	ug/l	
218-01-9	Chrysene	ND	0.11	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.016	ug/l	
206-44-0	Fluoranthene	0.019	0.11	0.0078	ug/l	J
86-73-7	Fluorene	ND	0.11	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.021	ug/l	
90-12-0	1-Methylnaphthalene	0.018	2.1	0.013	ug/l	J
91-57-6	2-Methylnaphthalene	0.031	2.1	0.012	ug/l	J
85-01-8	Phenanthrene	0.020	0.053	0.011	ug/l	JB
129-00-0	Pyrene	0.016	0.11	0.0089	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	77%		26-121%
321-60-8	2-Fluorobiphenyl	60%		28-107%
1718-51-0	Terphenyl-d14	103%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW12-ROX-040615		
Lab Sample ID:	MC37809-2	Date Sampled:	04/06/15
Matrix:	AQ - Ground Water	Date Received:	04/07/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62760.D	1	04/13/15	NK	04/10/15	OP42634	GBB3418
Run #2							

	Initial Volume	Final Volume
Run #1	36.8 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0058	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0058	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	112%		60-140%
460-00-4	Bromofluorobenzene (S)	103%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-040615-HCL		
Lab Sample ID:	MC37809-3	Date Sampled:	04/06/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/07/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38140.D	1	04/16/15	KD	n/a	n/a	MSV1374
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-040615-HCL		
Lab Sample ID:	MC37809-3	Date Sampled:	04/06/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/07/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-040615-HCL		
Lab Sample ID:	MC37809-3	Date Sampled:	04/06/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/07/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	119%		72-133%
2037-26-5	Toluene-D8	103%		85-114%
460-00-4	4-Bromofluorobenzene	98%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-040615-ST		
Lab Sample ID:	MC37809-4	Date Sampled:	04/06/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/07/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62761.D	1	04/13/15	NK	04/10/15	OP42634	GBB3418
Run #2							

	Initial Volume	Final Volume
Run #1	36.2 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0059	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0059	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	123%		60-140%
460-00-4	Bromofluorobenzene (S)	110%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

LAB (LOCA

☐ KENCO ( )
☐ CAL SCIENCE ( )
☑ OTHER (Accutest Labs, 405 Technology Cir W, Marlborough, MA 01752 (508-481-6200))
☐ SEL (Lab Vendor #)

Lab Vendor #

Shell Oil Products Chain Of Custody Record

ECOM

Please Check Appropriate Box:
☑ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SOACH ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name: Bob Bilman

PO #

INCIDENT # (ENV SERVICES): 0 7 2 1 8 8 4 0

SAP #: 3 4 0 0 6 1

☐ CHECK IF NO INCIDENT # APPLIES

DATE: 4-6-15

PAGE: 1 of 1

URS CORPORATION

1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300; ST. LOUIS, MO 63110

Elizabeth Kunkel, Bob Bilman, Lindsey Rathnow

314-429-0100 | 314-429-0402 | bob.bilman@aecom.com; elizabeth.kunkel@aecom.com; lindsey.rathnow@aecom.com

Site Address: Street and City: 906 South Central Ave; ROXANA | State: IL

Roxana Quarterly GW / 21563720.03002

Dchase / BTesfu

LAB USE ONLY: MC37809

TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ EA - RWQCB REPORT FORMAT ☐ LIST AGENCY

DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) FIELD

TEMPERATURE ON RECEIPT C° Cooler #1 Cooler #2 Cooler #3

SPECIAL INSTRUCTIONS OR NOTES:
* Please include "J" values on Reports.
* Please provide sample receipt upon login.

☑ WELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ DO NOT REPORT
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEAD DATA

REQUESTED ANALYSIS

FIELD NOTES:
TEMPERATURE ON RECEIPT C°

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF (cont.)	VOC 8260C SL+TICS	VOC 8011 SL	SVOC 8270D SL+TICS	PAH 8270LL	Container PID Readings or Laboratory Notes
-1	MW1-ROX-040615	4/6/15	1145	water	2			2	2	6	X	X	X	X	0.0
-2	MW12-ROX-040615		1420		2			2	2	6	X	X	X	X	↓
-3	TB-ROX-040615-HCL		0000		2					2	X				
-4	TB-ROX-040615-ST		0000						2	2		X			
															3A2, 16A

Relinquished by (Signature)	Received by (Signature)	Date	Time
[signature] (DAC)	#8066 2852 5007 FED EX	4-6-15	1600
FEDEX	[signature]	4-7-15	1545

custody seal → ROX1

0,8°C

MC37809: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC37809 Client: SHELL/URS Project: ROXANA

Date / Time Received: 4/7/2015 3:45:00 PM Delivery Method: Airbill #'s:

Cooler Temps (Initial/Adjusted): #1: (0.6/0.8);

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	☑ ☐	3. COC Present:	☑ ☐
2. Custody Seals Intact:	☑ ☐	4. Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Thermometer ID:	IRGUN1;
3. Cooler media:	Ice (Bag)
4. No. Coolers:	1

Quality Control Preservation	Y or N	N/A
1. Trip Blank present / cooler:	☑ ☐	☐
2. Trip Blank listed on COC:	☑ ☐	☐
3. Samples preserved properly:	☑ ☐	
4. VOCs headspace free:	☑ ☐	☐

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	☑ ☐
2. Container labeling complete:	☑ ☐
3. Sample container label / COC agree:	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	☑ ☐
2. All containers accounted for:	☑ ☐
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear:	☑ ☐	
2. Bottles received for unspecified tests	☐ ☑	
3. Sufficient volume recvd for analysis:	☑ ☐	
4. Compositing instructions clear:	☐ ☐	☑
5. Filtering instructions clear:	☐ ☐	☑

Comments

Accutest Laboratories
V:(508) 481-6200
495 Technology Center West, Bldg One
F: (508) 481-7753
Marlborough, MA 01752
www.accutest.com

MC37809: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC37809

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Project No: 21563720.03002

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC37809-1 Collected: 06-APR-15 11:45 By: DCBT Received: 07-APR-15 By: TF						
MW1-ROX-040615						
MC37809-1	SW846 8270D BY SIM	13-APR-15 08:36	MR	09-APR-15	MT	B8270SIMSL
MC37809-1	SW846 8011	13-APR-15 16:14	NK	10-APR-15	NE	V8011SL
MC37809-1	SW846 8270D	14-APR-15 18:11	KD	09-APR-15	MT	AB8270SL+
MC37809-1	SW846 8260C	16-APR-15 19:38	KD			V8260SL+
MC37809-2 Collected: 06-APR-15 14:20 By: DCBT Received: 07-APR-15 By: TF						
MW12-ROX-040615						
MC37809-2	SW846 8270D BY SIM	13-APR-15 09:00	MR	09-APR-15	MT	B8270SIMSL
MC37809-2	SW846 8011	13-APR-15 16:42	NK	10-APR-15	NE	V8011SL
MC37809-2	SW846 8270D	14-APR-15 18:37	KD	09-APR-15	MT	AB8270SL+
MC37809-2	SW846 8260C	16-APR-15 20:07	KD			V8260SL+
MC37809-3 Collected: 06-APR-15 00:00 By: DCBT Received: 07-APR-15 By: TF						
TB-ROX-040615-HCL						
MC37809-3	SW846 8260C	16-APR-15 15:50	KD			V8260SL+
MC37809-4 Collected: 06-APR-15 00:00 By: DCBT Received: 07-APR-15 By: TF						
TB-ROX-040615-ST						
MC37809-4	SW846 8011	13-APR-15 17:10	NK	10-APR-15	NE	V8011SL

Accutest Internal Chain of Custody

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Received: 04/07/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC37809-1.1	VOC Ref #3	Krysten Dufort	04/16/15 13:16	Retrieve from Storage
MC37809-1.1	Krysten Dufort	GCMSV	04/16/15 13:16	Load on Instrument
MC37809-1.1	GCMSV	Krysten Dufort	04/17/15 12:35	Unload from Instrument
MC37809-1.1	Krysten Dufort	VOC Ref #3	04/17/15 12:35	Return to Storage
MC37809-1.3	VOC Ref #3	Nicole Estey	04/08/15 14:12	Retrieve from Storage
MC37809-1.3	Nicole Estey		04/08/15 20:57	Depleted
MC37809-1.4	VOC Ref #3	Nicole Estey	04/10/15 14:47	Retrieve from Storage
MC37809-1.4	Nicole Estey		04/10/15 18:40	Depleted
MC37809-1.6	Walk In Ref #22	Forrest Thompson	04/08/15 15:54	Retrieve from Storage
MC37809-1.6	Forrest Thompson	Walk In Ref #22	04/08/15 22:06	Return to Storage
MC37809-1.6	Walk In Ref #22	Alireza Zeighami	04/09/15 07:33	Retrieve from Storage
MC37809-1.6	Alireza Zeighami		04/15/15 07:13	Depleted
MC37809-2.2	VOC Ref #3	Krysten Dufort	04/16/15 13:16	Retrieve from Storage
MC37809-2.2	Krysten Dufort	GCMSV	04/16/15 13:16	Load on Instrument
MC37809-2.2	GCMSV	Krysten Dufort	04/17/15 12:35	Unload from Instrument
MC37809-2.2	Krysten Dufort	VOC Ref #3	04/17/15 12:35	Return to Storage
MC37809-2.3	VOC Ref #3	Nicole Estey	04/10/15 14:47	Retrieve from Storage
MC37809-2.3	Nicole Estey		04/10/15 18:40	Depleted
MC37809-2.4	VOC Ref #3	Nicole Estey	04/08/15 14:12	Retrieve from Storage
MC37809-2.4	Nicole Estey		04/08/15 20:57	Depleted
MC37809-2.5	Walk In Ref #22	Forrest Thompson	04/08/15 15:54	Retrieve from Storage
MC37809-2.5	Forrest Thompson	Walk In Ref #22	04/08/15 22:06	Return to Storage
MC37809-2.5	Walk In Ref #22	Alireza Zeighami	04/09/15 07:33	Retrieve from Storage
MC37809-2.5	Alireza Zeighami		04/15/15 07:13	Depleted
MC37809-3.2	VOC Ref #3	Krysten Dufort	04/16/15 13:16	Retrieve from Storage
MC37809-3.2	Krysten Dufort	GCMSV	04/16/15 13:16	Load on Instrument
MC37809-3.2	GCMSV	Krysten Dufort	04/17/15 12:35	Unload from Instrument
MC37809-3.2	Krysten Dufort	VOC Ref #3	04/17/15 12:35	Return to Storage
MC37809-4.1	VOC Ref #3	Nicole Estey	04/10/15 14:47	Retrieve from Storage
MC37809-4.1	Nicole Estey		04/10/15 18:40	Depleted
MC37809-4.2	VOC Ref #3	Nicole Estey	04/08/15 14:12	Retrieve from Storage
MC37809-4.2	Nicole Estey		04/08/15 20:57	Depleted

5.3

New England ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1374-MB	V38136.D	1	04/16/15	KD	n/a	n/a	MSV1374

The QC reported here applies to the following samples: Method: SW846 8260C

MC37809-1, MC37809-2, MC37809-3

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	

6.1.1

Method Blank Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1374-MB	V38136.D	1	04/16/15	KD	n/a	n/a	MSV1374

The QC reported here applies to the following samples: Method: SW846 8260C

MC37809-1, MC37809-2, MC37809-3

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

Method Blank Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1374-MB	V38136.D	1	04/16/15	KD	n/a	n/a	MSV1374

The QC reported here applies to the following samples: Method: SW846 8260C

MC37809-1, MC37809-2, MC37809-3

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	112%	72-133%
2037-26-5	Toluene-D8	103%	85-114%
460-00-4	4-Bromofluorobenzene	104%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

6.1.1

Blank Spike Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1374-BS	V38133.D	1	04/16/15	KD	n/a	n/a	MSV1374

The QC reported here applies to the following samples: Method: SW846 8260C

MC37809-1, MC37809-2, MC37809-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	69.2	138	14-172
107-02-8	Acrolein	250	304	122	10-168
107-13-1	Acrylonitrile	50	52.6	105	41-158
71-43-2	Benzene	50	49.8	100	68-127
108-86-1	Bromobenzene	50	51.6	103	74-124
74-97-5	Bromochloromethane	50	50.8	102	68-135
75-27-4	Bromodichloromethane	50	56.0	112	72-144
75-25-2	Bromoform	50	45.5	91	59-147
74-83-9	Bromomethane	50	57.1	114	34-175
78-93-3	2-Butanone (MEK)	50	54.3	109	43-147
104-51-8	n-Butylbenzene	50	54.8	110	77-136
135-98-8	sec-Butylbenzene	50	54.1	108	75-134
98-06-6	tert-Butylbenzene	50	52.6	105	74-132
75-15-0	Carbon disulfide	50	53.7	107	34-171
56-23-5	Carbon tetrachloride	50	55.3	111	55-153
108-90-7	Chlorobenzene	50	50.3	101	71-123
75-00-3	Chloroethane	50	55.9	112	58-175
110-75-8	2-Chloroethyl vinyl ether	50	47.1	94	44-169
67-66-3	Chloroform	50	54.6	109	67-136
74-87-3	Chloromethane	50	51.2	102	25-182
95-49-8	o-Chlorotoluene	50	53.1	106	72-130
106-43-4	p-Chlorotoluene	50	53.1	106	73-127
124-48-1	Dibromochloromethane	50	46.3	93	73-139
95-50-1	1,2-Dichlorobenzene	50	49.1	98	77-125
541-73-1	1,3-Dichlorobenzene	50	50.0	100	77-124
106-46-7	1,4-Dichlorobenzene	50	48.2	96	73-128
75-71-8	Dichlorodifluoromethane	50	43.9	88	23-157
75-34-3	1,1-Dichloroethane	50	54.5	109	63-145
107-06-2	1,2-Dichloroethane	50	54.4	109	58-145
75-35-4	1,1-Dichloroethene	50	55.4	111	56-158
156-59-2	cis-1,2-Dichloroethene	50	51.2	102	67-133
156-60-5	trans-1,2-Dichloroethene	50	52.7	105	66-136
78-87-5	1,2-Dichloropropane	50	54.2	108	75-133
142-28-9	1,3-Dichloropropane	50	48.6	97	70-127
594-20-7	2,2-Dichloropropane	50	54.8	110	52-163
563-58-6	1,1-Dichloropropene	50	54.7	109	77-140

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1374-BS	V38133.D	1	04/16/15	KD	n/a	n/a	MSV1374

The QC reported here applies to the following samples: Method: SW846 8260C

MC37809-1, MC37809-2, MC37809-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-01-5	cis-1,3-Dichloropropene	50	49.3	99	74-141
10061-02-6	trans-1,3-Dichloropropene	50	50.1	100	77-143
123-91-1	1,4-Dioxane	250	194	78	30-182
97-63-2	Ethyl methacrylate	50	50.0	100	64-131
100-41-4	Ethylbenzene	50	52.7	105	71-129
87-68-3	Hexachlorobutadiene	50	48.1	96	64-146
591-78-6	2-Hexanone	50	51.5	103	22-163
98-82-8	Isopropylbenzene	50	54.1	108	72-133
99-87-6	p-Isopropyltoluene	50	54.0	108	77-134
1634-04-4	Methyl Tert Butyl Ether	50	57.3	115	46-151
108-10-1	4-Methyl-2-pentanone (MIBK)	50	50.0	100	47-145
74-95-3	Methylene bromide	50	53.2	106	70-132
75-09-2	Methylene chloride	50	51.8	104	55-146
91-20-3	Naphthalene	50	38.6	77	39-176
103-65-1	n-Propylbenzene	50	56.4	113	74-134
100-42-5	Styrene	50	51.5	103	71-134
630-20-6	1,1,1,2-Tetrachloroethane	50	47.3	95	70-137
79-34-5	1,1,2,2-Tetrachloroethane	50	52.1	104	58-145
127-18-4	Tetrachloroethene	50	50.2	100	63-137
108-88-3	Toluene	50	52.3	105	75-126
87-61-6	1,2,3-Trichlorobenzene	50	41.6	83	27-181
120-82-1	1,2,4-Trichlorobenzene	50	43.7	87	40-176
71-55-6	1,1,1-Trichloroethane	50	53.2	106	68-144
79-00-5	1,1,2-Trichloroethane	50	54.3	109	72-133
79-01-6	Trichloroethene	50	51.8	104	73-126
75-69-4	Trichlorofluoromethane	50	54.5	109	43-152
96-18-4	1,2,3-Trichloropropane	50	45.9	92	58-141
95-63-6	1,2,4-Trimethylbenzene	50	54.6	109	76-129
108-67-8	1,3,5-Trimethylbenzene	50	54.7	109	71-127
108-05-4	Vinyl Acetate	50	62.0	124	10-170
75-01-4	Vinyl chloride	50	49.5	99	36-167
	m,p-Xylene	100	103	103	68-130
95-47-6	o-Xylene	50	51.8	104	69-126
1330-20-7	Xylene (total)	150	154	103	67-129

* = Outside of Control Limits.

6.2.1

Blank Spike Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1374-BS	V38133.D	1	04/16/15	KD	n/a	n/a	MSV1374

The QC reported here applies to the following samples: Method: SW846 8260C

MC37809-1, MC37809-2, MC37809-3

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	107%	72-133%
2037-26-5	Toluene-D8	103%	85-114%
460-00-4	4-Bromofluorobenzene	104%	70-134%

6.2.1

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC37808-2MS	V38156.D	1	04/16/15	KD	n/a	n/a	MSV1374
MC37808-2MSD	V38157.D	1	04/16/15	KD	n/a	n/a	MSV1374
MC37808-2	V38145.D	1	04/16/15	KD	n/a	n/a	MSV1374

The QC reported here applies to the following samples: Method: SW846 8260C

MC37809-1, MC37809-2, MC37809-3

CAS No.	Compound	MC37808-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		50	33.3	67	50	34.7	69	4	10-135/30
107-02-8	Acrolein	ND		250	289	116	250	278	111	4	10-175/30
107-13-1	Acrylonitrile	ND		50	48.3	97	50	47.1	94	3	37-163/30
71-43-2	Benzene	2.8		50	47.1	89	50	48.7	92	3	61-138/30
108-86-1	Bromobenzene	ND		50	45.8	92	50	46.8	94	2	71-126/30
74-97-5	Bromochloromethane	ND		50	45.6	91	50	46.0	92	1	70-136/30
75-27-4	Bromodichloromethane	ND		50	51.2	102	50	51.9	104	1	73-146/30
75-25-2	Bromoform	ND		50	41.0	82	50	41.6	83	1	54-147/30
74-83-9	Bromomethane	ND		50	53.2	106	50	54.4	109	2	20-171/30
78-93-3	2-Butanone (MEK)	ND		50	35.8	72	50	37.1	74	4	33-127/30
104-51-8	n-Butylbenzene	ND		50	45.1	90	50	47.6	95	5	69-138/30
135-98-8	sec-Butylbenzene	ND		50	45.8	92	50	47.9	96	4	71-137/30
98-06-6	tert-Butylbenzene	ND		50	45.9	92	50	46.7	93	2	68-137/30
75-15-0	Carbon disulfide	ND		50	45.6	91	50	46.3	93	2	29-178/30
56-23-5	Carbon tetrachloride	ND		50	48.8	98	50	49.9	100	2	57-155/30
108-90-7	Chlorobenzene	ND		50	45.0	90	50	46.3	93	3	69-126/30
75-00-3	Chloroethane	ND		50	52.5	105	50	52.8	106	1	57-182/30
110-75-8	2-Chloroethyl vinyl ether	ND		50	ND	0* [a]	50	ND	0* [a]	nc	10-200/30
67-66-3	Chloroform	ND		50	50.0	100	50	50.2	100	0	66-142/30
74-87-3	Chloromethane	ND		50	47.4	95	50	50.5	101	6	18-182/30
95-49-8	o-Chlorotoluene	ND		50	46.1	92	50	47.8	96	4	60-145/30
106-43-4	p-Chlorotoluene	ND		50	46.8	94	50	48.3	97	3	64-138/30
124-48-1	Dibromochloromethane	ND		50	41.9	84	50	42.5	85	1	71-138/30
95-50-1	1,2-Dichlorobenzene	ND		50	43.6	87	50	45.2	90	4	75-125/30
541-73-1	1,3-Dichlorobenzene	ND		50	44.1	88	50	45.7	91	4	74-125/30
106-46-7	1,4-Dichlorobenzene	ND		50	43.2	86	50	44.5	89	3	72-128/30
75-71-8	Dichlorodifluoromethane	ND		50	40.8	82	50	41.0	82	0	23-159/30
75-34-3	1,1-Dichloroethane	ND		50	50.1	100	50	50.4	101	1	63-150/30
107-06-2	1,2-Dichloroethane	ND		50	49.9	100	50	50.0	100	0	57-150/30
75-35-4	1,1-Dichloroethene	ND		50	48.1	96	50	49.3	99	2	53-165/30
156-59-2	cis-1,2-Dichloroethene	ND		50	46.9	94	50	46.7	93	0	66-138/30
156-60-5	trans-1,2-Dichloroethene	ND		50	47.4	95	50	47.5	95	0	65-141/30
78-87-5	1,2-Dichloropropane	ND		50	49.4	99	50	50.3	101	2	76-136/30
142-28-9	1,3-Dichloropropane	ND		50	44.0	88	50	45.3	91	3	71-127/30
594-20-7	2,2-Dichloropropane	ND		50	40.8	82	50	41.0	82	0	33-175/30
563-58-6	1,1-Dichloropropene	ND		50	47.7	95	50	49.1	98	3	76-145/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC37808-2MS	V38156.D	1	04/16/15	KD	n/a	n/a	MSV1374
MC37808-2MSD	V38157.D	1	04/16/15	KD	n/a	n/a	MSV1374
MC37808-2	V38145.D	1	04/16/15	KD	n/a	n/a	MSV1374

The QC reported here applies to the following samples: Method: SW846 8260C

MC37809-1, MC37809-2, MC37809-3

CAS No.	Compound	MC37808-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		50	42.5	85	50	43.0	86	1	75-137/30
10061-02-6	trans-1,3-Dichloropropene	ND		50	44.1	88	50	45.0	90	2	77-139/30
123-91-1	1,4-Dioxane	ND		250	143	57	250	160	64	11	29-167/30
97-63-2	Ethyl methacrylate	ND		50	45.0	90	50	45.8	92	2	60-135/30
100-41-4	Ethylbenzene	ND		50	47.1	94	50	49.2	98	4	61-137/30
87-68-3	Hexachlorobutadiene	ND		50	40.2	80	50	42.6	85	6	59-141/30
591-78-6	2-Hexanone	ND		50	32.3	65	50	33.3	67	3	12-141/30
98-82-8	Isopropylbenzene	ND		50	46.5	93	50	48.6	97	4	64-141/30
99-87-6	p-Isopropyltoluene	ND		50	45.0	90	50	47.7	95	6	73-135/30
1634-04-4	Methyl Tert Butyl Ether	ND		50	51.4	103	50	51.8	104	1	34-160/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	43.7	87	50	44.7	89	2	47-143/30
74-95-3	Methylene bromide	ND		50	48.1	96	50	48.4	97	1	73-132/30
75-09-2	Methylene chloride	ND		50	46.9	94	50	46.9	94	0	52-154/30
91-20-3	Naphthalene	ND		50	36.8	74	50	37.5	75	2	21-185/30
103-65-1	n-Propylbenzene	ND		50	48.0	96	50	50.4	101	5	66-141/30
100-42-5	Styrene	ND		50	46.2	92	50	47.4	95	3	60-142/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		50	41.3	83	50	43.2	86	4	69-138/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	45.9	92	50	47.0	94	2	58-147/30
127-18-4	Tetrachloroethene	ND		50	43.2	86	50	45.5	91	5	60-140/30
108-88-3	Toluene	ND		50	47.6	95	50	48.7	97	2	74-131/30
87-61-6	1,2,3-Trichlorobenzene	ND		50	37.2	74	50	39.1	78	5	12-184/30
120-82-1	1,2,4-Trichlorobenzene	ND		50	38.1	76	50	40.9	82	7	30-175/30
71-55-6	1,1,1-Trichloroethane	ND		50	47.0	94	50	47.8	96	2	67-151/30
79-00-5	1,1,2-Trichloroethane	ND		50	49.9	100	50	50.4	101	1	73-134/30
79-01-6	Trichloroethene	ND		50	46.4	93	50	47.9	96	3	68-133/30
75-69-4	Trichlorofluoromethane	ND		50	51.6	103	50	52.0	104	1	40-159/30
96-18-4	1,2,3-Trichloropropane	ND		50	40.0	80	50	40.7	81	2	54-141/30
95-63-6	1,2,4-Trimethylbenzene	ND		50	46.9	94	50	49.2	98	5	62-142/30
108-67-8	1,3,5-Trimethylbenzene	ND		50	46.5	93	50	48.5	97	4	62-133/30
108-05-4	Vinyl Acetate	ND		50	54.4	109	50	54.6	109	0	10-169/30
75-01-4	Vinyl chloride	ND		50	46.4	93	50	47.4	95	2	29-176/30
	m,p-Xylene	0.77	J	100	91.6	91	100	96.2	95	5	58-139/30
95-47-6	o-Xylene	ND		50	45.6	91	50	47.5	95	4	61-135/30
1330-20-7	Xylene (total)	0.77	J	150	137	91	150	144	95	5	60-136/30

* = Outside of Control Limits.

6.3.1

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC37808-2MS	V38156.D	1	04/16/15	KD	n/a	n/a	MSV1374
MC37808-2MSD	V38157.D	1	04/16/15	KD	n/a	n/a	MSV1374
MC37808-2	V38145.D	1	04/16/15	KD	n/a	n/a	MSV1374

The QC reported here applies to the following samples: Method: SW846 8260C

MC37809-1, MC37809-2, MC37809-3

CAS No.	Surrogate Recoveries	MS	MSD	MC37808-2	Limits
1868-53-7	Dibromofluoromethane	107%	106%	118%	72-133%
2037-26-5	Toluene-D8	104%	103%	105%	85-114%
460-00-4	4-Bromofluorobenzene	104%	105%	102%	70-134%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

6.3.1

Volatile Internal Standard Area Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSV1374-CC1332	Injection Date:	04/16/15
Lab File ID:	V38133.D	Injection Time:	12:30
Instrument ID:	GCMSV	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	482437	6.51	777805	7.70	408229	11.05	437008	13.27	84673	3.49
Upper Limit [a]	964874	7.01	1555610	8.20	816458	11.55	874016	13.77	169346	3.99
Lower Limit [b]	241219	6.01	388903	7.20	204115	10.55	218504	12.77	42337	2.99
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV1374-BS	482437	6.51	777805	7.70	408229	11.05	437008	13.27	84673	3.49
MSV1374-MB	413582	6.50	694707	7.70	371675	11.06	386936	13.27	77218	3.48
ZZZZZZ	415726	6.51	714918	7.70	369916	11.06	385191	13.27	70041	3.48
ZZZZZZ	402137	6.51	656493	7.70	349963	11.06	373666	13.27	62293	3.49
ZZZZZZ	412644	6.51	707569	7.70	377026	11.06	408992	13.27	66484	3.49
MC37809-3	370555	6.52	646946	7.71	341995	11.06	363895	13.27	59662	3.49
ZZZZZZ	353118	6.51	606002	7.70	334449	11.06	353953	13.27	62539	3.48
ZZZZZZ	372132	6.51	648318	7.70	352345	11.06	367533	13.27	61055	3.48
ZZZZZZ	344850	6.51	610034	7.71	327580	11.06	344264	13.28	58774	3.49
ZZZZZZ	361861	6.51	612950	7.71	335119	11.06	363311	13.27	63444	3.49
MC37808-2	361598	6.51	623634	7.71	338183	11.06	347460	13.28	61952	3.48
ZZZZZZ	343067	6.52	580579	7.71	319564	11.06	368558	13.27	60140	3.49
ZZZZZZ	412244	6.52	692100	7.71	358728	11.06	372877	13.28	70883	3.49
MC37809-1	414856	6.52	711229	7.71	365287	11.06	376304	13.28	73112	3.48
MC37809-2	382745	6.52	647499	7.71	348531	11.06	366635	13.28	71471	3.49
ZZZZZZ	389868	6.52	682333	7.71	345130	11.06	362240	13.28	70421	3.49
ZZZZZZ	341719	6.51	584045	7.71	319063	11.06	332012	13.27	62450	3.49
ZZZZZZ	369638	6.52	644369	7.71	334876	11.06	341678	13.28	58657	3.48
ZZZZZZ	352350	6.51	614999	7.71	333215	11.06	353756	13.28	61312	3.48
ZZZZZZ	374284	6.52	634785	7.71	347398	11.06	352562	13.28	63985	3.49
MC37808-2MS	473840	6.51	761008	7.71	399576	11.06	427691	13.28	81150	3.49
MC37808-2MSD	482401	6.52	778362	7.71	407215	11.06	441024	13.28	85720	3.49

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

6.4.1

Volatile Surrogate Recovery Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8260C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC37809-1	V38148.D	116	101	101
MC37809-2	V38149.D	117	103	101
MC37809-3	V38140.D	119	103	98
MC37808-2MS	V38156.D	107	104	104
MC37808-2MSD	V38157.D	106	103	105
MSV1374-BS	V38133.D	107	103	104
MSV1374-MB	V38136.D	112	103	104

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	72-133%
S2 = Toluene-D8	85-114%
S3 = 4-Bromofluorobenzene	70-134%

6.5.1

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42604-MB	R43419.D	1	04/14/15	KD	04/09/15	OP42604	MSR1599

The QC reported here applies to the following samples: Method: SW846 8270D

MC37809-1, MC37809-2

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.5	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.29	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.51	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.47	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.34	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.59	ug/l	
95-48-7	2-Methylphenol	ND	10	0.30	ug/l	
	3&4-Methylphenol	ND	10	0.44	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.47	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.35	ug/l	
108-95-2	Phenol	ND	5.0	0.32	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.45	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.45	ug/l	
62-53-3	Aniline	ND	10	0.46	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.25	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.24	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.32	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.34	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.49	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.42	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.42	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.26	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.37	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.38	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.53	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.27	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	0.29	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.27	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.24	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	0.55	2.0	0.32	ug/l	J
118-74-1	Hexachlorobenzene	ND	5.0	0.24	ug/l	

7.1.1

Method Blank Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42604-MB	R43419.D	1	04/14/15	KD	04/09/15	OP42604	MSR1599

The QC reported here applies to the following samples: Method: SW846 8270D

MC37809-1, MC37809-2

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.28	ug/l	
78-59-1	Isophorone	ND	5.0	0.47	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.36	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.40	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.51	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.48	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.25	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.25	ug/l	
110-86-1	Pyridine	ND	10	0.36	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	49%	10-79%
4165-62-2	Phenol-d5	33%	10-72%
118-79-6	2,4,6-Tribromophenol	82%	35-138%
4165-60-0	Nitrobenzene-d5	76%	30-116%
321-60-8	2-Fluorobiphenyl	71%	35-107%
1718-51-0	Terphenyl-d14	100%	43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

7.1.1

7

Method Blank Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42605-MB	I95054.D	1	04/10/15	MR	04/09/15	OP42605	MSI3555

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC37809-1, MC37809-2

7.1.2

7

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.0075	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.0084	ug/l	
120-12-7	Anthracene	ND	0.10	0.0098	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.015	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.019	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.013	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.0074	ug/l	
86-73-7	Fluorene	ND	0.10	0.015	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.020	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	0.012	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	0.011	ug/l	
85-01-8	Phenanthrene	0.019	0.050	0.011	ug/l	J
129-00-0	Pyrene	ND	0.10	0.0085	ug/l	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	78%	26-121%
321-60-8	2-Fluorobiphenyl	63%	28-107%
1718-51-0	Terphenyl-d14	106%	29-129%

Blank Spike Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42604-BS	W21429.D	1	04/14/15	KD	04/09/15	OP42604	MSW918

The QC reported here applies to the following samples: Method: SW846 8270D

MC37809-1, MC37809-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	50	17.6	35	10-73
95-57-8	2-Chlorophenol	50	40.1	80	47-106
59-50-7	4-Chloro-3-methyl phenol	50	43.8	88	50-111
120-83-2	2,4-Dichlorophenol	50	42.3	85	53-114
105-67-9	2,4-Dimethylphenol	50	32.6	65	23-110
51-28-5	2,4-Dinitrophenol	50	44.5	89	10-156
534-52-1	4,6-Dinitro-o-cresol	50	50.9	102	17-159
95-48-7	2-Methylphenol	50	35.4	71	40-92
	3&4-Methylphenol	100	70.7	71	38-86
88-75-5	2-Nitrophenol	50	44.0	88	53-115
100-02-7	4-Nitrophenol	50	23.9	48	10-83
87-86-5	Pentachlorophenol	50	41.6	83	41-122
108-95-2	Phenol	50	23.7	47	15-55
95-95-4	2,4,5-Trichlorophenol	50	44.2	88	52-120
88-06-2	2,4,6-Trichlorophenol	50	44.5	89	53-119
62-53-3	Aniline	50	32.1	64	26-87
101-55-3	4-Bromophenyl phenyl ether	50	45.4	91	65-127
85-68-7	Butyl benzyl phthalate	50	47.8	96	68-128
100-51-6	Benzyl Alcohol	50	40.5	81	13-108
91-58-7	2-Chloronaphthalene	50	42.5	85	58-120
106-47-8	4-Chloroaniline	50	40.8	82	48-106
111-91-1	bis(2-Chloroethoxy)methane	50	44.6	89	42-118
111-44-4	bis(2-Chloroethyl)ether	50	43.4	87	35-123
108-60-1	bis(2-Chloroisopropyl)ether	50	45.3	91	37-160
7005-72-3	4-Chlorophenyl phenyl ether	50	44.7	89	57-121
122-66-7	1,2-Diphenylhydrazine	50	46.3	93	54-128
121-14-2	2,4-Dinitrotoluene	50	47.6	95	64-127
606-20-2	2,6-Dinitrotoluene	50	44.1	88	55-135
91-94-1	3,3'-Dichlorobenzidine	50	39.7	79	49-141
132-64-9	Dibenzofuran	50	43.9	88	60-107
84-74-2	Di-n-butyl phthalate	50	46.1	92	68-117
117-84-0	Di-n-octyl phthalate	50	49.7	99	60-139
84-66-2	Diethyl phthalate	50	45.8	92	51-127
131-11-3	Dimethyl phthalate	50	45.0	90	22-147
117-81-7	bis(2-Ethylhexyl)phthalate	50	50.0	100	69-133
118-74-1	Hexachlorobenzene	50	45.7	91	62-131

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42604-BS	W21429.D	1	04/14/15	KD	04/09/15	OP42604	MSW918

The QC reported here applies to the following samples: Method: SW846 8270D

MC37809-1, MC37809-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	11.8	24	10-74
67-72-1	Hexachloroethane	50	29.9	60	15-104
78-59-1	Isophorone	50	39.7	79	44-110
88-74-4	2-Nitroaniline	50	46.8	94	63-123
99-09-2	3-Nitroaniline	50	43.2	86	63-112
100-01-6	4-Nitroaniline	50	45.7	91	58-114
98-95-3	Nitrobenzene	50	42.0	84	37-130
62-75-9	n-Nitrosodimethylamine	50	36.8	74	18-80
621-64-7	N-Nitroso-di-n-propylamine	50	41.7	83	44-128
86-30-6	N-Nitrosodiphenylamine	50	42.1	84	62-107
110-86-1	Pyridine	50	18.2	36	10-77

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	60%	10-79%
4165-62-2	Phenol-d5	44%	10-72%
118-79-6	2,4,6-Tribromophenol	93%	35-138%
4165-60-0	Nitrobenzene-d5	91%	30-116%
321-60-8	2-Fluorobiphenyl	79%	35-107%
1718-51-0	Terphenyl-d14	100%	43-135%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42605-BS	I95055.D	1	04/10/15	MR	04/09/15	OP42605	MSI3555

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC37809-1, MC37809-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	39.0	78	45-116
208-96-8	Acenaphthylene	50	37.9	76	34-110
120-12-7	Anthracene	50	40.3	81	50-117
56-55-3	Benzo(a)anthracene	50	48.4	97	55-139
50-32-8	Benzo(a)pyrene	50	45.4	91	48-131
205-99-2	Benzo(b)fluoranthene	50	47.5	95	49-141
191-24-2	Benzo(g,h,i)perylene	50	44.6	89	60-130
207-08-9	Benzo(k)fluoranthene	50	38.3	77	49-133
218-01-9	Chrysene	50	43.6	87	52-128
53-70-3	Dibenzo(a,h)anthracene	50	44.5	89	60-136
206-44-0	Fluoranthene	50	43.5	87	46-132
86-73-7	Fluorene	50	40.5	81	53-120
193-39-5	Indeno(1,2,3-cd)pyrene	50	45.5	91	57-134
90-12-0	1-Methylnaphthalene	50	34.4	69	41-105
91-57-6	2-Methylnaphthalene	50	35.2	70	36-111
85-01-8	Phenanthrene	50	39.7	79	50-120
129-00-0	Pyrene	50	44.5	89	48-127

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	84%	26-121%
321-60-8	2-Fluorobiphenyl	71%	28-107%
1718-51-0	Terphenyl-d14	105%	29-129%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42604-MS	R43421.D	1	04/14/15	KD	04/09/15	OP42604	MSR1599
OP42604-MSD	R43422.D	1	04/14/15	KD	04/09/15	OP42604	MSR1599
MC37900-3	R43423.D	1	04/14/15	KD	04/09/15	OP42604	MSR1599

The QC reported here applies to the following samples: Method: SW846 8270D

MC37809-1, MC37809-2

CAS No.	Compound	MC37900-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		50	11.9	24	50	10.7	21	11	10-76/20
95-57-8	2-Chlorophenol	ND		50	29.9	60	50	32.7	65	9	37-112/20
59-50-7	4-Chloro-3-methyl phenol	ND		50	34.4	69	50	35.5	71	3	43-115/20
120-83-2	2,4-Dichlorophenol	ND		50	34.6	69	50	37.9	76	9	47-119/20
105-67-9	2,4-Dimethylphenol	ND		50	29.9	60	50	32.2	64	7	15-118/20
51-28-5	2,4-Dinitrophenol	ND		50	28.9	58	50	31.7	63	9	10-165/20
534-52-1	4,6-Dinitro-o-cresol	ND		50	40.3	81	50	41.9	84	4	13-165/20
95-48-7	2-Methylphenol	ND		50	29.5	59	50	29.3	59	1	30-99/20
	3&4-Methylphenol	ND		100	54.0	54	100	58.2	58	7	32-89/20
88-75-5	2-Nitrophenol	ND		50	33.4	67	50	37.1	74	10	44-120/20
100-02-7	4-Nitrophenol	ND		50	1.5	3* [a]	50	2.8	6* [a]	60* [b]	10-93/20
87-86-5	Pentachlorophenol	ND		50	27.2	54	50	18.7	37	37* [b]	33-131/20
108-95-2	Phenol	ND		50	16.1	32	50	14.8	30	8	15-53/20
95-95-4	2,4,5-Trichlorophenol	ND		50	42.2	84	50	44.9	90	6	45-126/20
88-06-2	2,4,6-Trichlorophenol	ND		50	29.7	59	50	33.3	67	11	45-124/20
62-53-3	Aniline	ND		50	24.7	49	50	27.5	55	11	18-91/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	43.7	87	50	44.2	88	1	57-131/20
85-68-7	Butyl benzyl phthalate	ND		50	38.9	78	50	40.6	81	4	58-135/20
100-51-6	Benzyl Alcohol	ND		50	38.4	77	50	39.2	78	2	10-109/20
91-58-7	2-Chloronaphthalene	ND		50	35.8	72	50	39.1	78	9	51-123/20
106-47-8	4-Chloroaniline	ND		50	33.5	67	50	36.2	72	8	39-109/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	33.7	67	50	36.4	73	8	36-120/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	31.0	62	50	32.7	65	5	30-124/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	33.1	66	50	34.0	68	3	25-171/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	40.4	81	50	42.4	85	5	51-122/20
122-66-7	1,2-Diphenylhydrazine	ND		50	34.9	70	50	35.5	71	2	47-130/20
121-14-2	2,4-Dinitrotoluene	ND		50	39.0	78	50	39.9	80	2	57-131/20
606-20-2	2,6-Dinitrotoluene	ND		50	16.9	34* [a]	50	39.8	80	81* [b]	52-135/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	33.2	66	50	36.0	72	8	25-157/20
132-64-9	Dibenzofuran	ND		50	37.6	75	50	39.6	79	5	54-110/20
84-74-2	Di-n-butyl phthalate	ND		50	39.1	78	50	39.7	79	2	60-122/20
117-84-0	Di-n-octyl phthalate	ND		50	38.4	77	50	40.9	82	6	54-142/20
84-66-2	Diethyl phthalate	ND		50	38.7	77	50	39.3	79	2	40-132/20
131-11-3	Dimethyl phthalate	ND		50	39.5	79	50	40.6	81	3	13-149/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		50	40.0	80	50	42.0	84	5	59-139/20
118-74-1	Hexachlorobenzene	ND		50	43.9	88	50	45.0	90	2	56-135/20

* = Outside of Control Limits.

7.3.1

7

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42604-MS	R43421.D	1	04/14/15	KD	04/09/15	OP42604	MSR1599
OP42604-MSD	R43422.D	1	04/14/15	KD	04/09/15	OP42604	MSR1599
MC37900-3	R43423.D	1	04/14/15	KD	04/09/15	OP42604	MSR1599

The QC reported here applies to the following samples: Method: SW846 8270D

MC37809-1, MC37809-2

7.3.1

7

CAS No.	Compound	MC37900-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		50	5.6	11	50	6.3	13	12	10-73/20
67-72-1	Hexachloroethane	ND		50	22.3	45	50	24.3	49	9	13-103/20
78-59-1	Isophorone	ND		50	29.4	59	50	31.5	63	7	41-110/20
88-74-4	2-Nitroaniline	ND		50	39.6	79	50	40.8	82	3	57-126/20
99-09-2	3-Nitroaniline	ND		50	36.3	73	50	37.2	74	2	53-118/20
100-01-6	4-Nitroaniline	ND		50	36.0	72	50	36.5	73	1	50-119/20
98-95-3	Nitrobenzene	ND		50	32.1	64	50	33.5	67	4	35-127/20
62-75-9	n-Nitrosodimethylamine	ND		50	24.2	48	50	26.1	52	8	11-82/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	31.3	63	50	33.5	67	7	39-129/20
86-30-6	N-Nitrosodiphenylamine	ND		50	37.4	75	50	38.3	77	2	55-112/20
110-86-1	Pyridine	ND		50	11.9	24	50	15.5	31	26* [b]	15-71/20

CAS No.	Surrogate Recoveries	MS	MSD	MC37900-3	Limits
367-12-4	2-Fluorophenol	43%	46%	36%	10-79%
4165-62-2	Phenol-d5	30%	32%	26%	10-72%
118-79-6	2,4,6-Tribromophenol	75%	83%	67%	35-138%
4165-60-0	Nitrobenzene-d5	68%	72%	58%	30-116%
321-60-8	2-Fluorobiphenyl	67%	74%	50%	35-107%
1718-51-0	Terphenyl-d14	91%	94%	87%	43-135%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(b) High RPD due to possible matrix interference and/or sample non-homogeneity.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42605-MS	I95056.D	1	04/10/15	MR	04/09/15	OP42605	MSI3555
OP42605-MSD	I95057.D	1	04/10/15	MR	04/09/15	OP42605	MSI3555
MC37900-4	I95058.D	1	04/10/15	MR	04/09/15	OP42605	MSI3555

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC37809-1, MC37809-2

7.3.2

7

CAS No.	Compound	MC37900-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	34.0	68	50	36.0	72	6	36-124/20
208-96-8	Acenaphthylene	ND		50	32.8	66	50	34.7	69	6	25-116/20
120-12-7	Anthracene	ND		50	37.0	74	50	37.5	75	1	42-122/20
56-55-3	Benzo(a)anthracene	ND		50	43.4	87	50	44.0	88	1	45-145/20
50-32-8	Benzo(a)pyrene	ND		50	40.9	82	50	41.4	83	1	40-136/20
205-99-2	Benzo(b)fluoranthene	ND		50	42.2	84	50	43.0	86	2	41-148/20
191-24-2	Benzo(g,h,i)perylene	ND		50	38.4	77	50	41.4	83	8	48-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	35.7	71	50	35.1	70	2	45-131/20
218-01-9	Chrysene	0.018	J	50	39.6	79	50	40.1	80	1	41-135/20
53-70-3	Dibenzo(a,h)anthracene	ND		50	38.8	78	50	40.7	81	5	49-144/20
206-44-0	Fluoranthene	0.017	J	50	40.5	81	50	39.9	80	1	38-136/20
86-73-7	Fluorene	0.018	J	50	36.5	73	50	38.0	76	4	43-127/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	39.4	79	50	42.0	84	6	45-142/20
90-12-0	1-Methylnaphthalene	0.022	J	50	28.7	57	50	30.7	61	7	29-116/20
91-57-6	2-Methylnaphthalene	0.025	J	50	29.2	58	50	31.4	63	7	27-117/20
85-01-8	Phenanthrene	0.020	JB	50	36.0	72	50	36.4	73	1	41-126/20
129-00-0	Pyrene	0.017	J	50	41.3	83	50	41.2	82	0	41-131/20

CAS No.	Surrogate Recoveries	MS	MSD	MC37900-4	Limits
4165-60-0	Nitrobenzene-d5	69%	74%	59%	26-121%
321-60-8	2-Fluorobiphenyl	61%	65%	47%	28-107%
1718-51-0	Terphenyl-d14	95%	94%	86%	29-129%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3555-CC3483	Injection Date:	04/10/15
Lab File ID:	I95041.D	Injection Time:	08:47
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	268294	3.58	568648	4.61	331549	6.13	589872	7.44	423940	10.21	1080629	11.65
Upper Limit [a]	536588	4.08	1137296	5.11	663098	6.63	1179744	7.94	847880	10.71	2161258	12.15
Lower Limit [b]	134147	3.08	284324	4.11	165775	5.63	294936	6.94	211970	9.71	540315	11.15
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP42592-MB	280625	3.58	592909	4.61	345793	6.13	592546	7.44	441722	10.21	1107359	11.65
OP42592-BS	264844	3.58	569840	4.62	322042	6.13	571582	7.44	408954	10.22	983169	11.65
OP42592-BSD	287328	3.58	614936	4.62	344159	6.13	606800	7.44	425610	10.22	1016667	11.65
OP42592-MS	255967	3.58	551122	4.62	310525	6.13	544540	7.44	386404	10.21	925140	11.64
OP42592-MSD	265375	3.58	568248	4.62	321065	6.13	561558	7.44	405063	10.22	968555	11.64
MC37600-22	251092	3.57	540029	4.61	312811	6.13	542604	7.44	395824	10.21	991265	11.64
ZZZZZZ	230112	3.57	485924	4.61	284452	6.13	496452	7.44	360094	10.21	901514	11.64
ZZZZZZ	258786	3.57	552749	4.61	323107	6.13	563064	7.44	412026	10.21	1035315	11.64
ZZZZZZ	259525	3.57	549300	4.61	320448	6.13	554877	7.44	402870	10.21	1006448	11.64
ZZZZZZ	276714	3.57	584149	4.61	339980	6.13	572794	7.44	400886	10.21	947065	11.64
ZZZZZZ	296396	3.57	631338	4.61	361865	6.13	624207	7.44	440011	10.21	1042062	11.64
ZZZZZZ	294312	3.57	629573	4.61	360552	6.13	623762	7.44	440890	10.21	1071248	11.64
OP42605-MB	287530	3.57	604757	4.61	344070	6.13	583175	7.44	417003	10.21	1015591	11.64
OP42605-BS	267674	3.57	597935	4.61	341859	6.13	635093	7.44	467932	10.21	1166572	11.64
OP42605-MS	274580	3.57	590659	4.61	333892	6.13	602294	7.44	430775	10.21	1039027	11.64
OP42605-MSD	223537	3.57	490958	4.61	277949	6.13	513873	7.44	383873	10.21	971202	11.64
MC37900-4	213434	3.57	451453	4.61	258246	6.13	447836	7.44	343278	10.20	886033	11.63
ZZZZZZ	221621	3.57	467674	4.61	266338	6.13	458511	7.44	341749	10.20	856315	11.63
ZZZZZZ	194241	3.57	417054	4.61	240831	6.12	426463	7.44	319662	10.20	815461	11.63
ZZZZZZ	268158	3.57	573531	4.61	327332	6.13	563039	7.44	404283	10.20	985909	11.63
ZZZZZZ	265186	3.57	560421	4.61	318188	6.13	545470	7.44	389147	10.20	948504	11.63
ZZZZZZ	255652	3.57	545394	4.61	309734	6.13	528443	7.44	374517	10.20	901815	11.63
ZZZZZZ	292035	3.57	629263	4.61	359749	6.13	623935	7.45	471480	10.21	1145964	11.64
ZZZZZZ	281051	3.57	609782	4.61	360638	6.13	635510	7.44	483103	10.21	1197024	11.63
ZZZZZZ	266538	3.57	569275	4.61	320628	6.13	553312	7.44	396522	10.20	953085	11.63
ZZZZZZ	259710	3.57	550735	4.61	310602	6.13	538799	7.44	389435	10.20	977798	11.63
ZZZZZZ	266256	3.57	557288	4.61	317716	6.12	548334	7.44	390211	10.20	960837	11.63
ZZZZZZ	249076	3.57	527525	4.61	296359	6.13	509721	7.44	352213	10.20	869715	11.63
ZZZZZZ	302726	3.57	645558	4.61	375374	6.13	654442	7.44	476319	10.20	1160704	11.63
OP42603-MB	310214	3.57	653071	4.61	368628	6.13	623106	7.44	438439	10.20	1059025	11.63
OP42603-BS	279470	3.57	621831	4.61	355953	6.13	659473	7.44	491422	10.21	1213862	11.64
OP42603-MS	267345	3.57	593192	4.61	338591	6.13	617956	7.44	460297	10.21	1135253	11.64
OP42603-MSD	249659	3.57	556543	4.61	323584	6.13	599406	7.44	443942	10.21	1111857	11.64
MC37900-2	271181	3.57	570709	4.61	326871	6.13	565487	7.44	394309	10.20	951290	11.63
ZZZZZZ	271160	3.57	576568	4.61	331230	6.12	567854	7.44	398488	10.20	980175	11.63

7.4.1

7

Semivolatile Internal Standard Area Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3555-CC3483	Injection Date:	04/10/15
Lab File ID:	I95041.D	Injection Time:	08:47
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.4.1

7

Semivolatile Internal Standard Area Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3556-CC3483	Injection Date:	04/13/15
Lab File ID:	195079.D	Injection Time:	08:13
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	305829	3.57	634683	4.61	365678	6.13	641351	7.44	455060	10.20	1160125	11.63
Upper Limit [a]	611658	4.07	1269366	5.11	731356	6.63	1282702	7.94	910120	10.70	2320250	12.13
Lower Limit [b]	152915	3.07	317342	4.11	182839	5.63	320676	6.94	227530	9.70	580063	11.13
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
MC37809-1	286037	3.57	595430	4.60	328110	6.12	555711	7.44	399294	10.20	1025097	11.63
MC37809-2	278829	3.57	581543	4.60	324338	6.12	550960	7.44	393948	10.20	1002451	11.63
ZZZZZZ	282326	3.57	589004	4.61	327072	6.12	545155	7.44	395233	10.20	1006893	11.63
ZZZZZZ	253890	3.57	531618	4.60	295314	6.12	494443	7.44	349084	10.20	878946	11.63
ZZZZZZ	230508	3.57	487076	4.61	269106	6.12	462530	7.44	335675	10.20	861524	11.63
ZZZZZZ	275988	3.57	571091	4.61	322849	6.13	554274	7.44	408169	10.20	1047582	11.63
ZZZZZZ	300594	3.57	612089	4.61	336940	6.13	574148	7.44	398020	10.21	972147	11.65
ZZZZZZ	248274	3.57	522265	4.61	297236	6.12	521062	7.44	377428	10.20	974452	11.63
ZZZZZZ	259095	3.57	543456	4.61	306970	6.12	523497	7.44	384660	10.20	995972	11.63
ZZZZZZ	248962	3.57	518920	4.60	292598	6.12	501511	7.44	373410	10.20	968865	11.63
ZZZZZZ	277610	3.57	576079	4.60	321250	6.12	555806	7.44	394984	10.20	1009508	11.63
ZZZZZZ	278486	3.57	581384	4.61	326242	6.12	560810	7.44	410951	10.20	1032795	11.63
OP42584-MB	285486	3.57	585490	4.60	327814	6.12	565595	7.44	397659	10.20	1008337	11.63
OP42584-BS	280558	3.57	581561	4.61	319372	6.13	564829	7.44	399891	10.21	986860	11.64
OP42584-MS	275743	3.57	574573	4.61	312702	6.13	557808	7.44	394256	10.21	978673	11.63
OP42584-MSD	258909	3.57	544237	4.61	299388	6.13	530336	7.44	374068	10.21	918952	11.63
MC37814-6	285575	3.57	601179	4.60	338229	6.12	588398	7.44	417124	10.20	1056744	11.63
ZZZZZZ	278585	3.57	581084	4.60	328311	6.12	564129	7.44	406817	10.20	1032972	11.63
ZZZZZZ	281294	3.57	577732	4.60	326652	6.12	569135	7.44	405114	10.20	1018111	11.63
ZZZZZZ	287872	3.57	596812	4.60	336566	6.12	579717	7.44	407052	10.20	1027091	11.63
ZZZZZZ	271584	3.57	569684	4.60	317073	6.12	544307	7.44	388664	10.20	991259	11.63
ZZZZZZ	278961	3.57	579081	4.60	323026	6.12	562812	7.44	394470	10.20	1007167	11.63
ZZZZZZ	270566	3.57	555765	4.60	309729	6.12	539046	7.44	384968	10.20	978737	11.63
ZZZZZZ	287980	3.57	600196	4.60	333260	6.12	563805	7.44	403329	10.20	1020668	11.63
ZZZZZZ	286267	3.57	588386	4.60	332347	6.12	574466	7.44	401955	10.20	1021926	11.63
ZZZZZZ	297317	3.57	621588	4.60	347529	6.12	600140	7.44	422512	10.20	1060175	11.63

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.

7.4.2

7

Semivolatile Internal Standard Area Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3556-CC3483	Injection Date:	04/13/15
Lab File ID:	I95079.D	Injection Time:	08:13
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.4.2

7

Semivolatile Internal Standard Area Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSR1599-CC1577	Injection Date:	04/13/15
Lab File ID:	R43397.D	Injection Time:	15:51
Instrument ID:	GCMSR	Method:	SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	679284	5.22	2575219	6.32	1525911	7.86	2507309	9.15	2431463	11.72	2154465	13.43
Upper Limit [a]	1358568	5.72	5150438	6.82	3051822	8.36	5014618	9.65	4862926	12.22	4308930	13.93
Lower Limit [b]	339642	4.72	1287610	5.82	762956	7.36	1253655	8.65	1215732	11.22	1077233	12.93
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP42616-MB	947882	5.22	3539292	6.32	2140037	7.86	3526652	9.15	3277447	11.72	2903744	13.43
OP42616-BS	832019	5.22	3160792	6.32	1866818	7.86	3033434	9.15	2741536	11.72	2395319	13.43
ZZZZZZ	932751	5.22	3464986	6.32	2070588	7.86	3319059	9.15	2908717	11.71	2475224	13.42
ZZZZZZ	762439	5.21	2838505	6.32	1716529	7.86	2756164	9.14	2487588	11.71	2144940	13.42
ZZZZZZ	825774	5.22	3107481	6.32	1861563	7.86	2985684	9.14	2654285	11.71	2315118	13.42
OP42604-MB	857699	5.21	3206831	6.32	1918089	7.86	3109636	9.15	2857363	11.71	2570252	13.42
OP42604-MS	843050	5.22	3137519	6.32	1874988	7.86	2971852	9.15	2738314	11.72	2488624	13.43
OP42604-MSD	860667	5.22	3223737	6.32	1908998	7.86	3053256	9.15	2736838	11.72	2462236	13.43
MC37900-3	808370	5.21	2966494	6.32	1824536	7.86	2947397	9.14	2648724	11.71	2416566	13.42
ZZZZZZ	713979	5.21	2668677	6.32	1607720	7.86	2602275	9.14	2315125	11.71	2014837	13.42

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.4.3

Semivolatile Internal Standard Area Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW918-CC902	Injection Date:	04/14/15
Lab File ID:	W21422.D	Injection Time:	08:58
Instrument ID:	GCMSW	Method:	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	267577	5.18	1026356	6.29	593931	7.83	1000128	9.12	1003222	11.68	974823	13.38
Upper Limit [a]	535154	5.68	2052712	6.79	1187862	8.33	2000256	9.62	2006444	12.18	1949646	13.88
Lower Limit [b]	133789	4.68	513178	5.79	296966	7.33	500064	8.62	501611	11.18	487412	12.88
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
ZZZZZZ	306628	5.18	1164333	6.29	659577	7.83	1105233	9.12	1104639	11.68	1071205	13.38
ZZZZZZ	302292	5.18	1135411	6.29	643754	7.83	1056489	9.12	1045228	11.68	1039925	13.38
ZZZZZZ	291258	5.18	1078525	6.29	631844	7.83	1037339	9.12	1034760	11.68	1022463	13.38
ZZZZZZ	309588	5.18	1164526	6.29	674947	7.83	1105578	9.12	1140547	11.68	1110648	13.38
ZZZZZZ	316403	5.18	1182531	6.29	683283	7.83	1118512	9.12	1134896	11.68	1141910	13.38
OP42633-MB	293107	5.18	1088931	6.28	645182	7.83	1049239	9.12	1068248	11.68	1031303	13.38
OP42604-BS	320134	5.18	1203899	6.29	691761	7.83	1151567	9.12	1173935	11.68	1134184	13.38
OP42633-BS	281290	5.18	1062525	6.29	617618	7.83	1036808	9.12	1049382	11.68	1016828	13.38
OP42633-MS	272625	5.18	1028777	6.29	596364	7.83	1002567	9.12	992997	11.68	967736	13.38
OP42633-MSD	270528	5.18	1034466	6.29	598818	7.83	1021753	9.12	1015054	11.68	979261	13.38
MC37900-9	270125	5.18	1021396	6.28	609332	7.83	995385	9.12	1001664	11.68	952928	13.38
ZZZZZZ	311782	5.18	1153538	6.28	651675	7.83	1022586	9.12	1013173	11.70	1016777	13.41
ZZZZZZ	259642	5.18	986484	6.29	563081	7.83	917927	9.12	900874	11.68	911589	13.38
OP42662-LB	308554	5.18	1140753	6.29	659263	7.83	1102277	9.12	1096914	11.68	1089372	13.38
OP42662-MB	308554	5.18	1140753	6.29	659263	7.83	1102277	9.12	1096914	11.68	1089372	13.38
OP42662-BS	293032	5.18	1113859	6.29	635618	7.83	1070388	9.12	1033319	11.69	1028043	13.38
OP42662-MS [c]	245978	5.18	913880	6.29	533260	7.83	861096	9.12	886707	11.69	892816	13.39
OP42662-MSD [c]	257687	5.18	947987	6.29	541690	7.83	869898	9.12	900436	11.68	922536	13.39
MC37870-1	255818	5.18	930651	6.29	544738	7.83	887504	9.12	918834	11.69	911697	13.39
ZZZZZZ	238147	5.18	902749	6.29	514785	7.84	855271	9.13	866549	11.69	800029	13.40
ZZZZZZ	257466	5.18	955480	6.29	549766	7.83	884389	9.12	904416	11.68	896206	13.39
ZZZZZZ	255482	5.18	940784	6.29	545034	7.83	863280	9.12	894539	11.69	857318	13.39
MC37809-1	293447	5.18	1073607	6.29	615825	7.83	1015144	9.12	1055876	11.68	1010156	13.38
MC37809-2	289462	5.18	1061992	6.29	606139	7.83	994737	9.12	1058513	11.68	1015549	13.38
ZZZZZZ	248851	5.18	918072	6.29	526238	7.83	855484	9.13	895083	11.70	901973	13.39
ZZZZZZ	284616	5.18	1052386	6.29	611160	7.83	994113	9.12	1022984	11.68	982864	13.38

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.

7.4.4

7

Semivolatile Internal Standard Area Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW918-CC902	Injection Date:	04/14/15
Lab File ID:	W21422.D	Injection Time:	08:58
Instrument ID:	GCMSW	Method:	SW846 8270D

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Elevated RL due to dilution required for matrix interference.

7.4.4

7

Semivolatile Surrogate Recovery Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8270D Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC37809-1	W21444.D	55	39	92	87	75	95
MC37809-2	W21445.D	50	36	86	82	67	94
OP42604-BS	W21429.D	60	44	93	91	79	100
OP42604-MB	R43419.D	49	33	82	76	71	100
OP42604-MS	R43421.D	43	30	75	68	67	91
OP42604-MSD	R43422.D	46	32	83	72	74	94

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	10-79%
S2 = Phenol-d5	10-72%
S3 = 2,4,6-Tribromophenol	35-138%
S4 = Nitrobenzene-d5	30-116%
S5 = 2-Fluorobiphenyl	35-107%
S6 = Terphenyl-d14	43-135%

7.5.1

7

Semivolatile Surrogate Recovery Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8270D BY SIM	Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC37809-1	I95080.D	82	67	104
MC37809-2	I95081.D	77	60	103
OP42605-BS	I95055.D	84	71	105
OP42605-MB	I95054.D	78	63	106
OP42605-MS	I95056.D	69	61	95
OP42605-MSD	I95057.D	74	65	94

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	26-121%
S2 = 2-Fluorobiphenyl	28-107%
S3 = Terphenyl-d14	29-129%

7.5.2

7

New England ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

8

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries

Method Blank Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42634-MB	BB62752.D	1	04/13/15	NK	04/10/15	OP42634	GBB3418

The QC reported here applies to the following samples: Method: SW846 8011

MC37809-1, MC37809-2, MC37809-4

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.0061	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.0061	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	Bromofluorobenzene (S)	140%	60-140%
460-00-4	Bromofluorobenzene (S)	91%	60-140%

8.1.1

Blank Spike Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42634-BS	BB62753.D	1	04/13/15	NK	04/10/15	OP42634	GBB3418

The QC reported here applies to the following samples: Method: SW846 8011

MC37809-1, MC37809-2, MC37809-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.074	104	45-149
106-93-4	1,2-Dibromoethane	0.071	0.072	101	51-149

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	125%	60-140%
460-00-4	Bromofluorobenzene (S)	98%	60-140%

8.2.1

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42634-MS	BB62754.D	1	04/13/15	NK	04/10/15	OP42634	GBB3418
OP42634-MSD	BB62755.D	1	04/13/15	NK	04/10/15	OP42634	GBB3418
MC37900-10	BB62756.D	1	04/13/15	NK	04/10/15	OP42634	GBB3418

The QC reported here applies to the following samples: Method: SW846 8011

MC37809-1, MC37809-2, MC37809-4

CAS No.	Compound	MC37900-10 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	ND		0.071	0.077	108	0.071	0.066	93	15	31-169/30
106-93-4	1,2-Dibromoethane	ND		0.071	0.082	115	0.071	0.076	107	8	34-175/30

CAS No.	Surrogate Recoveries	MS	MSD	MC37900-10	Limits
460-00-4	Bromofluorobenzene (S)	129%	115%	109%	60-140%
460-00-4	Bromofluorobenzene (S)	99%	99%	104%	60-140%

* = Outside of Control Limits.

8.3.1

Volatile Surrogate Recovery Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8011	Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
MC37809-1	BB62759.D	113	102
MC37809-2	BB62760.D	112	103
MC37809-4	BB62761.D	123	110
OP42634-BS	BB62753.D	125	98
OP42634-MB	BB62752.D	140	91
OP42634-MS	BB62754.D	129	99
OP42634-MSD	BB62755.D	115	99

Surrogate Compounds	Recovery Limits
S1 = Bromofluorobenzene (S)	60-140%

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

8.4.1

GC Surrogate Retention Time Summary

Job Number: MC37809
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBB3418-CC3418	Injection Date:	04/13/15
Lab File ID:	BB62751.D	Injection Time:	12:17
Instrument ID:	GCBB	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	6.93	7.34

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP42634-MB	BB62752.D	04/13/15	12:58	6.93	7.34
OP42634-BS	BB62753.D	04/13/15	13:26	6.93	7.34
OP42634-MS	BB62754.D	04/13/15	13:54	6.93	7.34
OP42634-MSD	BB62755.D	04/13/15	14:22	6.93	7.33
MC37900-10	BB62756.D	04/13/15	14:51	6.93	7.34
ZZZZZZ	BB62757.D	04/13/15	15:18	6.93	7.34
ZZZZZZ	BB62758.D	04/13/15	15:46	6.93	7.34
MC37809-1	BB62759.D	04/13/15	16:14	6.93	7.34
MC37809-2	BB62760.D	04/13/15	16:42	6.93	7.33
MC37809-4	BB62761.D	04/13/15	17:10	6.93	7.33

Surrogate Compounds

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.5.1

Roxana Groundwater Quarterly – 2nd Quarter 2015 Data Review

Laboratory SDG: MC37844

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 4/23/2015

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2014

Sample Identification	Sample Identification
MW6D-ROX-040715	MW6B-ROX-040715
MW6B-ROX-040715-Dup	MW6A-ROX-040715-EB
MW6A-ROX-040715	TB-ROX-040715-HCL
TB-ROX-040715-ST	

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 SVOCs and PAHs were detected in the method blank, and although not indicated in the laboratory case narrative, VOCs, SVOCs, and PAHs were detected in the equipment blank. These issues are addressed further in the appropriate sections below. Additionally, the initial calibration verification for 2-hexanone and hexachlorocyclopentadiene exceeded 30 percent difference (%D). Initial and continuing calibration for 4-bromofluorobenzene exceeded 10%D and 15%D, respectively. Continuing calibration verification for 1,2-dibromo-3-chloropropane also exceed 15%D.

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
MW6A-ROX-040715-EB	VOCs	Acetone	9.4 µg/L
MW6A-ROX-040715-EB	SVOCs	Diethyl phthalate	0.73 µg/L
MW6A-ROX-040715-EB	PAHs	Fluorene	0.033 µg/L
MW6A-ROX-040715-EB	PAHs	Phenanthrene	0.11 µg/L
OP42604-MB	SVOCs	bis(2-Ethylhexyl)phthalate	0.55 µg/L

Blank ID	Parameter	Analyte	Concentration/ Amount
OP42605-MB	PAHs	Phenanthrene	0.019 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?

Yes

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

Yes

Field ID	Field Duplicate ID
MW6B-ROX-040715	MW6B-ROX-040715-Dup

Were field duplicates within evaluation criteria?

Yes

11.0 Sample Dilutions

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

Not applicable; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

No

New England ACCUTEST LABORATORIES

04/22/15

Technical Report for

Shell Oil

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana,

Accutest Job Number: MC37844

Sampling Date: 04/07/15

Report to:

AECOM, INC.

Melissa.mansker@urs.com

ATTN: Melissa Mansker

Total number of pages in report: 97

Reviewed on 4/23/15

Reza Tand
Lab Director

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

Sections: 1 2 3 4 5 6 7 8

Table of Contents

Section 1: Sample Summary 3
Section 2: Case Narrative/Conformance Summary 4
Section 3: Summary of Hits 6
Section 4: Sample Results 7
4.1: MC37844-1: MW6D-ROX-040715 8
4.2: MC37844-2: MW6B-ROX-040715 15
4.3: MC37844-3: MW6B-ROX-040715-DUP 22
4.4: MC37844-4: MW6A-ROX-040715-EB 29
4.5: MC37844-5: MW6A-ROX-040715 36
4.6: MC37844-6: TB-ROX-040715-HCL 43
4.7: MC37844-7: TB-ROX-040715-ST 46
Section 5: Misc. Forms 47
5.1: Chain of Custody 48
5.2: Sample Tracking Chronicle 50
5.3: Internal Chain of Custody 52
Section 6: GC/MS Volatiles - QC Data Summaries 55
6.1: Method Blank Summary 56
6.2: Blank Spike Summary 59
6.3: Matrix Spike/Matrix Spike Duplicate Summary 62
6.4: Internal Standard Area Summaries 65
6.5: Surrogate Recovery Summaries 66
Section 7: GC/MS Semi-volatiles - QC Data Summaries 67
7.1: Method Blank Summary 68
7.2: Blank Spike Summary 71
7.3: Matrix Spike/Matrix Spike Duplicate Summary 74
7.4: Internal Standard Area Summaries 77
7.5: Surrogate Recovery Summaries 84
Section 8: GC Volatiles - QC Data Summaries 86
8.1: Method Blank Summary 87
8.2: Blank Spike Summary 89
8.3: Matrix Spike/Matrix Spike Duplicate Summary 91
8.4: Surrogate Recovery Summaries 93
8.5: GC Surrogate Retention Time Summaries 94

Sample Summary

Shell Oil

Job No: MC37844

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
MC37844-1	04/07/15	13:10 DCBT	04/08/15	AQ	Ground Water	MW6D-ROX-040715
MC37844-2	04/07/15	14:30 DCBT	04/08/15	AQ	Ground Water	MW6B-ROX-040715
MC37844-3	04/07/15	14:30 DCBT	04/08/15	AQ	Ground Water	MW6B-ROX-040715-DUP
MC37844-4	04/07/15	15:10 DCBT	04/08/15	AQ	Equipment Blank	MW6A-ROX-040715-EB
MC37844-5	04/07/15	15:35 DCBT	04/08/15	AQ	Ground Water	MW6A-ROX-040715
MC37844-6	04/07/15	00:00 DCBT	04/08/15	AQ	Trip Blank Water	TB-ROX-040715-HCL
MC37844-7	04/07/15	00:00 DCBT	04/08/15	AQ	Trip Blank Water	TB-ROX-040715-ST

ACCUTEST LABORATORIES

2

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	MC37844
Site:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central	**Report Date**	4/22/2015 11:29:08 AM

5 Sample(s) and 2 Trip Blank(s) were collected on 04/07/2015 and were received at Accutest on 04/08/2015 properly preserved, at 2.2 Deg. C and intact. These Samples received an Accutest job number of MC37844. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report. 1-Chlorohexane, Benzenethiol, Dibenz(a,h)acridine, Indene, and Quinoline were searched in the library search and reported only if detections were found.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix AQ **Batch ID:** MSV1376

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC37883-1MS, MC37883-1MSD were used as the QC samples indicated.
- MC37883-1MS/MSD Recovery(s) for 2-Chloroethyl vinyl ether are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Initial calibration verification standard MSV1332-ICV1332 for 2-hexanone exceed 30% Difference (response bias high). Associated samples are non-detect for this compound.

Extractables by GCMS By Method SW846 8270D

Matrix AQ **Batch ID:** OP42604

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC37900-3MS, MC37900-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Initial calibration verification MSR1577-ICV1577, file R42796 for Hexachlorocyclopentadiene exceed 30% Difference.
- Matrix Spike Recovery(s) for 2,6-Dinitrotoluene, 4-Nitrophenol are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for 4-Nitrophenol are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for MSD for 2,6-Dinitrotoluene, 4-Nitrophenol, Pentachlorophenol, Pyridine are outside control limits for sample OP42604-MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.
- Initial calibration verification MSW902-ICV902, file W21009 for Hexachlorocyclopentadiene exceed 30% Difference.

Extractables by GCMS By Method SW846 8270D BY SIM

Matrix AQ **Batch ID:** OP42605

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC37900-4MS, MC37900-4MSD were used as the QC samples indicated.
- Calibration standard MSI3483-ICV3483, file I93414 not associate with this job.
- Sample(s) MC37844-4 have compound(s) reported with a "B" qualifier, indicating analyte is found in the associated method blank.

Volatiles by GC By Method SW846 8011

Matrix AQ	Batch ID: OP42587

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC37600-19MS, MC37600-19MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- MC37844-3,5; Insufficient sample for re-extraction.Results confirmed by re-analysis.
- Continuing calibration check standard GBB3417-CC3417, file BB62742 (signal #1 and #2), BB62749 (signal #1) for 4-Bromofluorobenzene exceed 15% Dev. Target recovery satisfactory.
- Initial calibration standard GBB3417-ICC3417 for 4-Bromofluorobenzene exceed 10% RSD. Target recovery satisfactory. Insufficient sample (MC37844-3,5) for re-extraction. Results confirmed by re-analysis.
- Continuing calibration check standard GBB3417-ICV3417, file BB62720A, signal #2 for 1,2-Dibromo-3-chloropropane exceed 15% Dev. Associated samples were reported from signal #1.

Matrix AQ	Batch ID: OP42634

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC37900-10MS, MC37900-10MSD were used as the QC samples indicated.
- Continuing calibration check standard GBB3418-CC3418, file BB62751, signal #2 for 4-Bromofluorobenzene exceed 15% Dev. Target recovery satisfactory.
- Continuing calibration check standard GBB3418-CC3418, signal #1, file BB62762, BB62771 has compounds exceed 15% Dev. Associated samples were reported from signal #2.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC37844).

Summary of Hits

Job Number: MC37844
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Collected: 04/07/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC37844-1	MW6D-ROX-040715					
Benzene		0.32 J	0.50	0.27	ug/l	SW846 8260C
Acenaphthene		0.016 J	0.11	0.0079	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		0.026 J	2.1	0.012	ug/l	SW846 8270D BY SIM
MC37844-2	MW6B-ROX-040715					
Methyl Tert Butyl Ether		5.2	1.0	0.35	ug/l	SW846 8260C
Di-n-butyl phthalate		0.29 J	5.1	0.28	ug/l	SW846 8270D
Acenaphthylene		0.016 J	0.10	0.0086	ug/l	SW846 8270D BY SIM
MC37844-3	MW6B-ROX-040715-DUP					
Methyl Tert Butyl Ether		5.4	1.0	0.35	ug/l	SW846 8260C
Acenaphthylene		0.016 J	0.10	0.0087	ug/l	SW846 8270D BY SIM
MC37844-4	MW6A-ROX-040715-EB					
Acetone		9.4 J	10	2.0	ug/l	SW846 8260C
Diethyl phthalate		0.73 J	5.1	0.27	ug/l	SW846 8270D
Fluorene		0.033 J	0.10	0.015	ug/l	SW846 8270D BY SIM
Phenanthrene		0.11 B	0.051	0.011	ug/l	SW846 8270D BY SIM
MC37844-5	MW6A-ROX-040715					
Methyl Tert Butyl Ether		7.7	1.0	0.35	ug/l	SW846 8260C
Acenaphthene		0.061 J	0.10	0.0077	ug/l	SW846 8270D BY SIM
Acenaphthylene		0.085 J	0.10	0.0086	ug/l	SW846 8270D BY SIM
Anthracene		0.027 J	0.10	0.010	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		0.019 J	2.0	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		0.023 J	2.0	0.011	ug/l	SW846 8270D BY SIM
MC37844-6	TB-ROX-040715-HCL					
No hits reported in this sample.						
MC37844-7	TB-ROX-040715-ST					
No hits reported in this sample.						

New England ACCUTEST LABORATORIES

4

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW6D-ROX-040715		
Lab Sample ID:	MC37844-1	Date Sampled:	04/07/15
Matrix:	AQ - Ground Water	Date Received:	04/08/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38200.D	1	04/17/15	KD	n/a	n/a	MSV1376
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	0.32	0.50	0.27	ug/l	J
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6D-ROX-040715		
Lab Sample ID:	MC37844-1	Date Sampled:	04/07/15
Matrix:	AQ - Ground Water	Date Received:	04/08/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6D-ROX-040715		
Lab Sample ID:	MC37844-1	Date Sampled:	04/07/15
Matrix:	AQ - Ground Water	Date Received:	04/08/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	117%		72-133%
2037-26-5	Toluene-D8	105%		85-114%
460-00-4	4-Bromofluorobenzene	103%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6D-ROX-040715		
Lab Sample ID:	MC37844-1	Date Sampled:	04/07/15
Matrix:	AQ - Ground Water	Date Received:	04/08/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21423.D	1	04/14/15	KD	04/09/15	OP42604	MSW918
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.3	0.31	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.53	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.49	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	0.36	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	0.62	ug/l	
95-48-7	2-Methylphenol	ND	11	0.31	ug/l	
	3&4-Methylphenol	ND	11	0.47	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.49	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	11	0.36	ug/l	
108-95-2	Phenol	ND	5.3	0.34	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.47	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.47	ug/l	
62-53-3	Aniline	ND	11	0.48	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.26	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.34	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	0.36	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.38	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	0.52	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.44	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.44	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	0.27	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	0.31	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.39	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.40	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.56	ug/l	
132-64-9	Dibenzofuran	ND	2.1	0.26	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.3	0.28	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	0.30	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6D-ROX-040715		
Lab Sample ID:	MC37844-1	Date Sampled:	04/07/15
Matrix:	AQ - Ground Water	Date Received:	04/08/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.3	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	5.3	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.33	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.26	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.3	0.30	ug/l	
78-59-1	Isophorone	ND	5.3	0.49	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.38	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.43	ug/l	
100-01-6	4-Nitroaniline	ND	11	0.54	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.51	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	0.27	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.26	ug/l	
110-86-1	Pyridine	ND	11	0.38	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	53%		10-79%
4165-62-2	Phenol-d5	39%		10-72%
118-79-6	2,4,6-Tribromophenol	85%		35-138%
4165-60-0	Nitrobenzene-d5	81%		30-116%
321-60-8	2-Fluorobiphenyl	70%		35-107%
1718-51-0	Terphenyl-d14	97%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6D-ROX-040715		
Lab Sample ID:	MC37844-1	Date Sampled:	04/07/15
Matrix:	AQ - Ground Water	Date Received:	04/08/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95082.D	1	04/13/15	MR	04/09/15	OP42605	MSI3556
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.016	0.11	0.0079	ug/l	J
208-96-8	Acenaphthylene	ND	0.11	0.0088	ug/l	
120-12-7	Anthracene	ND	0.11	0.010	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.053	0.025	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.053	0.020	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.011	ug/l	
218-01-9	Chrysene	ND	0.11	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.016	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.0078	ug/l	
86-73-7	Fluorene	ND	0.11	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.021	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.1	0.013	ug/l	
91-57-6	2-Methylnaphthalene	0.026	2.1	0.012	ug/l	J
85-01-8	Phenanthrene	ND	0.053	0.011	ug/l	
129-00-0	Pyrene	ND	0.11	0.0089	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	78%		26-121%
321-60-8	2-Fluorobiphenyl	63%		28-107%
1718-51-0	Terphenyl-d14	104%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6D-ROX-040715		
Lab Sample ID:	MC37844-1	Date Sampled:	04/07/15
Matrix:	AQ - Ground Water	Date Received:	04/08/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62765.D	1	04/13/15	NK	04/10/15	OP42634	GBB3418
Run #2							

	Initial Volume	Final Volume
Run #1	37.0 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0058	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0058	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	115%		60-140%
460-00-4	Bromofluorobenzene (S)	85%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6B-ROX-040715		
Lab Sample ID:	MC37844-2	Date Sampled:	04/07/15
Matrix:	AQ - Ground Water	Date Received:	04/08/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38201.D	1	04/17/15	KD	n/a	n/a	MSV1376
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6B-ROX-040715		
Lab Sample ID:	MC37844-2	Date Sampled:	04/07/15
Matrix:	AQ - Ground Water	Date Received:	04/08/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	5.2	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6B-ROX-040715		
Lab Sample ID:	MC37844-2	Date Sampled:	04/07/15
Matrix:	AQ - Ground Water	Date Received:	04/08/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	118%		72-133%
2037-26-5	Toluene-D8	104%		85-114%
460-00-4	4-Bromofluorobenzene	104%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6B-ROX-040715		
Lab Sample ID:	MC37844-2	Date Sampled:	04/07/15
Matrix:	AQ - Ground Water	Date Received:	04/08/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21424.D	1	04/14/15	KD	04/09/15	OP42604	MSW918
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.1	0.30	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.52	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.48	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.34	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.60	ug/l	
95-48-7	2-Methylphenol	ND	10	0.31	ug/l	
	3&4-Methylphenol	ND	10	0.45	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.47	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.35	ug/l	
108-95-2	Phenol	ND	5.1	0.33	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.46	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.46	ug/l	
62-53-3	Aniline	ND	10	0.47	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.1	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.1	0.25	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.33	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.1	0.35	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.1	0.50	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.1	0.43	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.1	0.43	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.1	0.26	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.1	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.38	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.38	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.1	0.54	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	0.29	5.1	0.28	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.1	0.29	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6B-ROX-040715		
Lab Sample ID:	MC37844-2	Date Sampled:	04/07/15
Matrix:	AQ - Ground Water	Date Received:	04/08/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.1	0.27	ug/l	
131-11-3	Dimethyl phthalate	ND	5.1	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.32	ug/l	
118-74-1	Hexachlorobenzene	ND	5.1	0.25	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.1	0.29	ug/l	
78-59-1	Isophorone	ND	5.1	0.48	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.36	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.41	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.52	ug/l	
98-95-3	Nitrobenzene	ND	5.1	0.49	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.1	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.1	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	0.26	ug/l	
110-86-1	Pyridine	ND	10	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	43%		10-79%
4165-62-2	Phenol-d5	33%		10-72%
118-79-6	2,4,6-Tribromophenol	84%		35-138%
4165-60-0	Nitrobenzene-d5	72%		30-116%
321-60-8	2-Fluorobiphenyl	73%		35-107%
1718-51-0	Terphenyl-d14	93%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6B-ROX-040715		
Lab Sample ID:	MC37844-2	Date Sampled:	04/07/15
Matrix:	AQ - Ground Water	Date Received:	04/08/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95083.D	1	04/13/15	MR	04/09/15	OP42605	MSI3556
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.0077	ug/l	
208-96-8	Acenaphthylene	0.016	0.10	0.0086	ug/l	J
120-12-7	Anthracene	ND	0.10	0.010	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.051	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.051	0.019	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.013	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.0076	ug/l	
86-73-7	Fluorene	ND	0.10	0.015	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.021	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	0.013	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	0.011	ug/l	
85-01-8	Phenanthrene	ND	0.051	0.011	ug/l	
129-00-0	Pyrene	ND	0.10	0.0087	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	69%		26-121%
321-60-8	2-Fluorobiphenyl	67%		28-107%
1718-51-0	Terphenyl-d14	99%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6B-ROX-040715		
Lab Sample ID:	MC37844-2	Date Sampled:	04/07/15
Matrix:	AQ - Ground Water	Date Received:	04/08/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62766.D	1	04/13/15	NK	04/10/15	OP42634	GBB3418
Run #2							

	Initial Volume	Final Volume
Run #1	37.8 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0057	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0057	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	116%		60-140%
460-00-4	Bromofluorobenzene (S)	86%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6B-ROX-040715-DUP		
Lab Sample ID:	MC37844-3	Date Sampled:	04/07/15
Matrix:	AQ - Ground Water	Date Received:	04/08/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38202.D	1	04/17/15	KD	n/a	n/a	MSV1376
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6B-ROX-040715-DUP		
Lab Sample ID:	MC37844-3	Date Sampled:	04/07/15
Matrix:	AQ - Ground Water	Date Received:	04/08/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	5.4	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6B-ROX-040715-DUP		
Lab Sample ID:	MC37844-3	Date Sampled:	04/07/15
Matrix:	AQ - Ground Water	Date Received:	04/08/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	122%		72-133%
2037-26-5	Toluene-D8	105%		85-114%
460-00-4	4-Bromofluorobenzene	102%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6B-ROX-040715-DUP		
Lab Sample ID:	MC37844-3	Date Sampled:	04/07/15
Matrix:	AQ - Ground Water	Date Received:	04/08/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21425.D	1	04/14/15	KD	04/09/15	OP42604	MSW918
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.2	0.30	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.52	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.48	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.35	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.61	ug/l	
95-48-7	2-Methylphenol	ND	10	0.31	ug/l	
	3&4-Methylphenol	ND	10	0.46	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.48	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.36	ug/l	
108-95-2	Phenol	ND	5.2	0.33	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.47	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.46	ug/l	
62-53-3	Aniline	ND	10	0.47	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	0.25	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.33	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.2	0.35	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.37	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	0.51	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	0.43	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	0.43	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	0.27	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.2	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.38	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.39	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	0.55	ug/l	
132-64-9	Dibenzofuran	ND	2.1	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.2	0.28	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.2	0.30	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6B-ROX-040715-DUP		
Lab Sample ID:	MC37844-3	Date Sampled:	04/07/15
Matrix:	AQ - Ground Water	Date Received:	04/08/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.2	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	5.2	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.33	ug/l	
118-74-1	Hexachlorobenzene	ND	5.2	0.25	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.2	0.29	ug/l	
78-59-1	Isophorone	ND	5.2	0.48	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.37	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.42	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.53	ug/l	
98-95-3	Nitrobenzene	ND	5.2	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	0.26	ug/l	
110-86-1	Pyridine	ND	10	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	43%		10-79%
4165-62-2	Phenol-d5	33%		10-72%
118-79-6	2,4,6-Tribromophenol	87%		35-138%
4165-60-0	Nitrobenzene-d5	73%		30-116%
321-60-8	2-Fluorobiphenyl	72%		35-107%
1718-51-0	Terphenyl-d14	95%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6B-ROX-040715-DUP		
Lab Sample ID:	MC37844-3	Date Sampled:	04/07/15
Matrix:	AQ - Ground Water	Date Received:	04/08/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95084.D	1	04/13/15	MR	04/09/15	OP42605	MSI3556
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.0077	ug/l	
208-96-8	Acenaphthylene	0.016	0.10	0.0087	ug/l	J
120-12-7	Anthracene	ND	0.10	0.010	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.052	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.052	0.020	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.0076	ug/l	
86-73-7	Fluorene	ND	0.10	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.021	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.1	0.013	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.1	0.011	ug/l	
85-01-8	Phenanthrene	ND	0.052	0.011	ug/l	
129-00-0	Pyrene	ND	0.10	0.0088	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	69%		26-121%
321-60-8	2-Fluorobiphenyl	67%		28-107%
1718-51-0	Terphenyl-d14	100%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6B-ROX-040715-DUP		
Lab Sample ID:	MC37844-3	Date Sampled:	04/07/15
Matrix:	AQ - Ground Water	Date Received:	04/08/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BB62743.D	1	04/10/15	NK	04/08/15	OP42587	GBB3417
Run #2							

	Initial Volume	Final Volume
Run #1	37.0 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0058	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0058	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	110%		60-140%
460-00-4	Bromofluorobenzene (S)	113%		60-140%

(a) Insufficient sample for re-extraction.Results confirmed by re-analysis.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6A-ROX-040715-EB		
Lab Sample ID:	MC37844-4	Date Sampled:	04/07/15
Matrix:	AQ - Equipment Blank	Date Received:	04/08/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38190.D	1	04/17/15	KD	n/a	n/a	MSV1376
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	9.4	10	2.0	ug/l	J
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6A-ROX-040715-EB		
Lab Sample ID:	MC37844-4	Date Sampled:	04/07/15
Matrix:	AQ - Equipment Blank	Date Received:	04/08/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6A-ROX-040715-EB		
Lab Sample ID:	MC37844-4	Date Sampled:	04/07/15
Matrix:	AQ - Equipment Blank	Date Received:	04/08/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	116%		72-133%
2037-26-5	Toluene-D8	105%		85-114%
460-00-4	4-Bromofluorobenzene	101%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6A-ROX-040715-EB		
Lab Sample ID:	MC37844-4	Date Sampled:	04/07/15
Matrix:	AQ - Equipment Blank	Date Received:	04/08/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21426.D	1	04/14/15	KD	04/09/15	OP42604	MSW918
Run #2							

	Initial Volume	Final Volume
Run #1	990 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.5	ug/l	
95-57-8	2-Chlorophenol	ND	5.1	0.29	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.51	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.47	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.34	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.60	ug/l	
95-48-7	2-Methylphenol	ND	10	0.30	ug/l	
	3&4-Methylphenol	ND	10	0.45	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.47	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.35	ug/l	
108-95-2	Phenol	ND	5.1	0.32	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.46	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.45	ug/l	
62-53-3	Aniline	ND	10	0.46	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.1	0.25	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.1	0.24	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.33	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.1	0.35	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.1	0.50	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.1	0.42	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.1	0.42	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.1	0.26	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.1	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.37	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.38	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.1	0.54	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.1	0.27	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.1	0.29	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6A-ROX-040715-EB		
Lab Sample ID:	MC37844-4	Date Sampled:	04/07/15
Matrix:	AQ - Equipment Blank	Date Received:	04/08/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	0.73	5.1	0.27	ug/l	J
131-11-3	Dimethyl phthalate	ND	5.1	0.24	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.32	ug/l	
118-74-1	Hexachlorobenzene	ND	5.1	0.25	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.1	0.29	ug/l	
78-59-1	Isophorone	ND	5.1	0.47	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.36	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.41	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.52	ug/l	
98-95-3	Nitrobenzene	ND	5.1	0.49	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.1	0.25	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.1	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	0.25	ug/l	
110-86-1	Pyridine	ND	10	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	35%		10-79%
4165-62-2	Phenol-d5	25%		10-72%
118-79-6	2,4,6-Tribromophenol	70%		35-138%
4165-60-0	Nitrobenzene-d5	58%		30-116%
321-60-8	2-Fluorobiphenyl	55%		35-107%
1718-51-0	Terphenyl-d14	84%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6A-ROX-040715-EB		
Lab Sample ID:	MC37844-4	Date Sampled:	04/07/15
Matrix:	AQ - Equipment Blank	Date Received:	04/08/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95085.D	1	04/13/15	MR	04/09/15	OP42605	MSI3556
Run #2							

	Initial Volume	Final Volume
Run #1	990 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.0076	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.0085	ug/l	
120-12-7	Anthracene	ND	0.10	0.0099	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.051	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.015	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.051	0.019	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.013	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.0075	ug/l	
86-73-7	Fluorene	0.033	0.10	0.015	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.021	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	0.012	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	0.011	ug/l	
85-01-8	Phenanthrene	0.11	0.051	0.011	ug/l	B
129-00-0	Pyrene	ND	0.10	0.0086	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	57%		26-121%
321-60-8	2-Fluorobiphenyl	50%		28-107%
1718-51-0	Terphenyl-d14	87%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6A-ROX-040715-EB		
Lab Sample ID:	MC37844-4	Date Sampled:	04/07/15
Matrix:	AQ - Equipment Blank	Date Received:	04/08/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62767.D	1	04/13/15	NK	04/10/15	OP42634	GBB3418
Run #2							

	Initial Volume	Final Volume
Run #1	37.0 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0058	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0058	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	116%		60-140%
460-00-4	Bromofluorobenzene (S)	87%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6A-ROX-040715		
Lab Sample ID:	MC37844-5	Date Sampled:	04/07/15
Matrix:	AQ - Ground Water	Date Received:	04/08/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38203.D	1	04/17/15	KD	n/a	n/a	MSV1376
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6A-ROX-040715		
Lab Sample ID:	MC37844-5	Date Sampled:	04/07/15
Matrix:	AQ - Ground Water	Date Received:	04/08/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	7.7	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6A-ROX-040715		
Lab Sample ID:	MC37844-5	Date Sampled:	04/07/15
Matrix:	AQ - Ground Water	Date Received:	04/08/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	119%		72-133%
2037-26-5	Toluene-D8	106%		85-114%
460-00-4	4-Bromofluorobenzene	105%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6A-ROX-040715		
Lab Sample ID:	MC37844-5	Date Sampled:	04/07/15
Matrix:	AQ - Ground Water	Date Received:	04/08/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21427.D	1	04/14/15	KD	04/09/15	OP42604	MSW918
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.1	0.30	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.52	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.48	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.34	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.60	ug/l	
95-48-7	2-Methylphenol	ND	10	0.31	ug/l	
	3&4-Methylphenol	ND	10	0.45	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.47	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.35	ug/l	
108-95-2	Phenol	ND	5.1	0.33	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.46	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.46	ug/l	
62-53-3	Aniline	ND	10	0.47	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.1	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.1	0.25	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.33	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.1	0.35	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.1	0.50	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.1	0.43	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.1	0.43	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.1	0.26	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.1	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.38	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.38	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.1	0.54	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.1	0.28	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.1	0.29	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6A-ROX-040715		
Lab Sample ID:	MC37844-5	Date Sampled:	04/07/15
Matrix:	AQ - Ground Water	Date Received:	04/08/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.1	0.27	ug/l	
131-11-3	Dimethyl phthalate	ND	5.1	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.32	ug/l	
118-74-1	Hexachlorobenzene	ND	5.1	0.25	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.1	0.29	ug/l	
78-59-1	Isophorone	ND	5.1	0.48	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.36	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.41	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.52	ug/l	
98-95-3	Nitrobenzene	ND	5.1	0.49	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.1	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.1	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	0.26	ug/l	
110-86-1	Pyridine	ND	10	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	49%		10-79%
4165-62-2	Phenol-d5	36%		10-72%
118-79-6	2,4,6-Tribromophenol	87%		35-138%
4165-60-0	Nitrobenzene-d5	81%		30-116%
321-60-8	2-Fluorobiphenyl	78%		35-107%
1718-51-0	Terphenyl-d14	87%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6A-ROX-040715		
Lab Sample ID:	MC37844-5	Date Sampled:	04/07/15
Matrix:	AQ - Ground Water	Date Received:	04/08/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95086.D	1	04/13/15	MR	04/09/15	OP42605	MSI3556
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.061	0.10	0.0077	ug/l	J
208-96-8	Acenaphthylene	0.085	0.10	0.0086	ug/l	J
120-12-7	Anthracene	0.027	0.10	0.010	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.051	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.051	0.019	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.013	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.0076	ug/l	
86-73-7	Fluorene	ND	0.10	0.015	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.021	ug/l	
90-12-0	1-Methylnaphthalene	0.019	2.0	0.013	ug/l	J
91-57-6	2-Methylnaphthalene	0.023	2.0	0.011	ug/l	J
85-01-8	Phenanthrene	ND	0.051	0.011	ug/l	
129-00-0	Pyrene	ND	0.10	0.0087	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	78%		26-121%
321-60-8	2-Fluorobiphenyl	72%		28-107%
1718-51-0	Terphenyl-d14	95%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6A-ROX-040715		
Lab Sample ID:	MC37844-5	Date Sampled:	04/07/15
Matrix:	AQ - Ground Water	Date Received:	04/08/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BB62745.D	1	04/10/15	NK	04/08/15	OP42587	GBB3417
Run #2							

	Initial Volume	Final Volume
Run #1	36.5 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0059	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0058	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	107%		60-140%
460-00-4	Bromofluorobenzene (S)	120%		60-140%

(a) Insufficient sample for re-extraction.Results confirmed by re-analysis.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-040715-HCL		
Lab Sample ID:	MC37844-6	Date Sampled:	04/07/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/08/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38189.D	1	04/17/15	KD	n/a	n/a	MSV1376
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-040715-HCL		
Lab Sample ID:	MC37844-6	Date Sampled:	04/07/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/08/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-040715-HCL		
Lab Sample ID:	MC37844-6	Date Sampled:	04/07/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/08/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	117%		72-133%
2037-26-5	Toluene-D8	104%		85-114%
460-00-4	4-Bromofluorobenzene	103%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-040715-ST		
Lab Sample ID:	MC37844-7	Date Sampled:	04/07/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/08/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62769.D	1	04/13/15	NK	04/10/15	OP42634	GBB3418
Run #2							

	Initial Volume	Final Volume
Run #1	36.7 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0058	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0058	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	116%		60-140%
460-00-4	Bromofluorobenzene (S)	86%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

LAB LOCA

☐ AMCO (_____)
☐ CALSCIENCE (_____)
☑ OTHER (Accutest Labs; 405 Technology Cir W, Marlborough, MA 01752 (508-481-0200))
☐ SH (Lab Vendor # _____)

Lab Vendor #

Shell Oil Products Chain Of Custody Record

ECOM

Please Check Appropriate Box:
☑ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SOACH ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER _____

Print Bill To Contact Name: Rob Bilman

PO #

INCIDENT # (ENV SERVICES): 0 7 2 1 5 5 4 0

SAP #: 3 4 0 0 6 1

☐ CHECK IF NO INCIDENT # APPLIES

DATE: 4-7-15

PAGE: 1 of 1

URS CORPORATION

1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300; ST. LOUIS, MO 63110

Elizabeth Kunkel, Bob Bilman, Lindsay Rathbow

314-429-0100 | 314-429-0402 | bob.bilman@aecom.com; elizabeth.kunkel@aecom.com; lindsay.rathbow@aecom.com

000 South Central Ave; ROXANA | IL

Roxana Quarterly GW / 21883720.03002

DChase / BTesfu

LAB USE ONLY: MC37844

☑ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT ☐ LIST AGENCY:

DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD

TEMPERATURE ON RECEIPT C° Cooler #1 | Cooler #2 | Cooler #3

SPECIAL INSTRUCTIONS OR NOTES:
* Please include "J" values on Reports.
* Please provide sample receipt upon login.

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD REQUIRED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS

FIELD NOTES:
TEMPERATURE ON RECEIPT C°

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	NONE	HNO3	NONE	OTHER	NO. OF CONT.	VOC 8260C SL+TICS	VOC 8011 SL	SVOC 8270D SL+TICS	PAH 8270LL	Container PID Readings or Laboratory Notes
-1	MW6B-ROX-040715 ✓	4/7/15	1310	water	2			2	2	6	X	X	X	X	0.0
-2	MW6B-ROX-040715 ✓		1430		2			2	2	6	X	X	X	X	
-3	MW6B-ROX-040715-DUP ✓		1430		2			2	2	6	X	X	X	X	
-4	MW6A-ROX-040715-EB ✓		1510		2			2	2	6	X	X	X	X	
-5	MW6A-ROX-040715 ✓		1535		2			2	2	6	X	X	X	X	
-6	TB-ROX-040715-HCL ✓		0000		2					2	X				
-7	TB-ROX-040715-ST ✓		0000						2	2		X			
															1CA, 3CY
															2.2°, 2.5°

Relinquished by (Signature)	Received by (Signature)	Date	Time
[signature]	#8066 2852 5018 FED EX	4-7-15	17:00
FX	[signature]	4/8/15	9:30

custody seals → ROX 1 ⇒ VOCs + D
ROX 2 ⇒ B + A + QA/QC

MC37844: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC37844 **Client:** URS **Project:** 900 SOUTH CENTRAL AVE

Date / Time Received: 4/8/2015 9:30:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (2.2/2.2); #2: (2.5/2.5);

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	[✓] [ ]	3. COC Present:	[✓] [ ]
2. Custody Seals Intact:	[✓] [ ]	4. Smpl Dates/Time OK	[✓] [ ]

Cooler Temperature	Y or N
1. Temp criteria achieved:	[✓] [ ]
2. Thermometer ID:	G1;
3. Cooler media:	Ice (Bag)
4. No. Coolers:	2

Quality Control Preservation	Y or N	N/A
1. Trip Blank present / cooler:	[✓] [ ]	[ ]
2. Trip Blank listed on COC:	[✓] [ ]	[ ]
3. Samples preserved properly:	[✓] [ ]	
4. VOCs headspace free:	[✓] [ ]	[ ]

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	[✓] [ ]
2. Container labeling complete:	[✓] [ ]
3. Sample container label / COC agree:	[✓] [ ]

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	[✓] [ ]
2. All containers accounted for:	[✓] [ ]
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear:	[✓] [ ]	
2. Bottles received for unspecified tests	[ ] [✓]	
3. Sufficient volume recvd for analysis:	[✓] [ ]	
4. Compositing instructions clear:	[ ] [ ]	[✓]
5. Filtering instructions clear:	[ ] [ ]	[✓]

Comments

Accutest Laboratories
V:(508) 481-6200
495 Technology Center West, Bldg One
F: (508) 481-7753
Marlborough, MA 01752
www.accutest.com

MC37844: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC37844

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC37844-1 Collected: 07-APR-15 13:10 By: DCBT Received: 08-APR-15 By: MW6D-ROX-040715						
MC37844-1	SW846 8270D BY SIM	13-APR-15 09:24	MR	09-APR-15	MT	B8270SIMSL
MC37844-1	SW846 8011	13-APR-15 19:04	NK	10-APR-15	NE	V8011SL
MC37844-1	SW846 8270D	14-APR-15 09:23	KD	09-APR-15	MT	AB8270SL+
MC37844-1	SW846 8260C	17-APR-15 20:15	KD			V8260SL+
MC37844-2 Collected: 07-APR-15 14:30 By: DCBT Received: 08-APR-15 By: MW6B-ROX-040715						
MC37844-2	SW846 8270D BY SIM	13-APR-15 09:49	MR	09-APR-15	MT	B8270SIMSL
MC37844-2	SW846 8011	13-APR-15 19:33	NK	10-APR-15	NE	V8011SL
MC37844-2	SW846 8270D	14-APR-15 09:48	KD	09-APR-15	MT	AB8270SL+
MC37844-2	SW846 8260C	17-APR-15 20:43	KD			V8260SL+
MC37844-3 Collected: 07-APR-15 14:30 By: DCBT Received: 08-APR-15 By: MW6B-ROX-040715-DUP						
MC37844-3	SW846 8011	10-APR-15 17:07	NK	08-APR-15	FC	V8011SL
MC37844-3	SW846 8270D BY SIM	13-APR-15 10:12	MR	09-APR-15	MT	B8270SIMSL
MC37844-3	SW846 8270D	14-APR-15 10:13	KD	09-APR-15	MT	AB8270SL+
MC37844-3	SW846 8260C	17-APR-15 21:12	KD			V8260SL+
MC37844-4 Collected: 07-APR-15 15:10 By: DCBT Received: 08-APR-15 By: MW6A-ROX-040715-EB						
MC37844-4	SW846 8270D BY SIM	13-APR-15 10:36	MR	09-APR-15	MT	B8270SIMSL
MC37844-4	SW846 8011	13-APR-15 20:02	NK	10-APR-15	NE	V8011SL
MC37844-4	SW846 8270D	14-APR-15 10:38	KD	09-APR-15	MT	AB8270SL+
MC37844-4	SW846 8260C	17-APR-15 15:31	KD			V8260SL+
MC37844-5 Collected: 07-APR-15 15:35 By: DCBT Received: 08-APR-15 By: MW6A-ROX-040715						
MC37844-5	SW846 8011	10-APR-15 18:04	NK	08-APR-15	NE	V8011SL
MC37844-5	SW846 8270D BY SIM	13-APR-15 11:00	MR	09-APR-15	MT	B8270SIMSL
MC37844-5	SW846 8270D	14-APR-15 11:03	KD	09-APR-15	MT	AB8270SL+
MC37844-5	SW846 8260C	17-APR-15 21:41	KD			V8260SL+

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC37844

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC37844-6 Collected: 07-APR-15 00:00 By: DCBT Received: 08-APR-15 By: TB-ROX-040715-HCL						
MC37844-6	SW846 8260C	17-APR-15 15:03	KD			V8260SL+
MC37844-7 Collected: 07-APR-15 00:00 By: DCBT Received: 08-APR-15 By: TB-ROX-040715-ST						
MC37844-7	SW846 8011	13-APR-15 21:00	NK	10-APR-15	NE	V8011SL

Accutest Internal Chain of Custody

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Received: 04/08/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC37844-1.1	Walk In Ref #22	Forrest Thompson	04/08/15 15:54	Retrieve from Storage
MC37844-1.1	Forrest Thompson	Walk In Ref #22	04/08/15 22:06	Return to Storage
MC37844-1.2	Walk In Ref #22	Alireza Zeighami	04/09/15 07:33	Retrieve from Storage
MC37844-1.2	Alireza Zeighami		04/15/15 07:13	Depleted
MC37844-1.3	VOC Ref #3	Nicole Estey	04/10/15 14:47	Retrieve from Storage
MC37844-1.3	Nicole Estey		04/10/15 18:40	Depleted
MC37844-1.4	VOC Ref #3	Nicole Estey	04/08/15 14:12	Retrieve from Storage
MC37844-1.4	Nicole Estey		04/08/15 20:57	Depleted
MC37844-1.6	VOC Ref #3	Krysten Dufort	04/17/15 14:46	Retrieve from Storage
MC37844-1.6	Krysten Dufort	GCMSV	04/17/15 14:46	Load on Instrument
MC37844-1.6	GCMSV	Krysten Dufort	04/20/15 14:38	Unload from Instrument
MC37844-1.6	Krysten Dufort	VOC Ref #3	04/20/15 14:38	Return to Storage
MC37844-2.1	Walk In Ref #22	Alireza Zeighami	04/09/15 07:33	Retrieve from Storage
MC37844-2.1	Alireza Zeighami		04/15/15 07:13	Depleted
MC37844-2.2	Walk In Ref #22	Forrest Thompson	04/08/15 15:54	Retrieve from Storage
MC37844-2.2	Forrest Thompson	Walk In Ref #22	04/08/15 22:06	Return to Storage
MC37844-2.3	VOC Ref #3	Nicole Estey	04/08/15 14:12	Retrieve from Storage
MC37844-2.3	Nicole Estey		04/08/15 20:57	Depleted
MC37844-2.4	VOC Ref #3	Nicole Estey	04/10/15 14:47	Retrieve from Storage
MC37844-2.4	Nicole Estey		04/10/15 18:40	Depleted
MC37844-2.5	VOC Ref #3	Krysten Dufort	04/17/15 14:46	Retrieve from Storage
MC37844-2.5	Krysten Dufort	GCMSV	04/17/15 14:46	Load on Instrument
MC37844-2.5	GCMSV	Krysten Dufort	04/20/15 14:38	Unload from Instrument
MC37844-2.5	Krysten Dufort	VOC Ref #3	04/20/15 14:38	Return to Storage
MC37844-3.1	Walk In Ref #22	Forrest Thompson	04/08/15 15:54	Retrieve from Storage
MC37844-3.1	Forrest Thompson	Walk In Ref #22	04/08/15 22:06	Return to Storage
MC37844-3.2	Walk In Ref #22	Alireza Zeighami	04/09/15 07:33	Retrieve from Storage
MC37844-3.2	Alireza Zeighami		04/15/15 07:13	Depleted
MC37844-3.3	VOC Ref #3	Nicole Estey	04/08/15 14:12	Retrieve from Storage
MC37844-3.3	Nicole Estey		04/08/15 20:57	Depleted
MC37844-3.6	VOC Ref #3	Krysten Dufort	04/17/15 14:46	Retrieve from Storage

5.3

Accutest Internal Chain of Custody

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Received: 04/08/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC37844-3.6	Krysten Dufort	GCMSV	04/17/15 14:46	Load on Instrument
MC37844-3.6	GCMSV	Krysten Dufort	04/20/15 14:38	Unload from Instrument
MC37844-3.6	Krysten Dufort	VOC Ref #3	04/20/15 14:38	Return to Storage
MC37844-4.1	Walk In Ref #22	Forrest Thompson	04/08/15 15:54	Retrieve from Storage
MC37844-4.1	Forrest Thompson	Walk In Ref #22	04/08/15 22:06	Return to Storage
MC37844-4.2	Walk In Ref #22	Alireza Zeighami	04/09/15 07:33	Retrieve from Storage
MC37844-4.2	Alireza Zeighami		04/15/15 07:13	Depleted
MC37844-4.3	VOC Ref #3	Nicole Estey	04/08/15 14:12	Retrieve from Storage
MC37844-4.3	Nicole Estey		04/08/15 20:57	Depleted
MC37844-4.4	VOC Ref #3	Nicole Estey	04/10/15 14:47	Retrieve from Storage
MC37844-4.4	Nicole Estey		04/10/15 18:40	Depleted
MC37844-4.5	VOC Ref #3	Krysten Dufort	04/17/15 14:46	Retrieve from Storage
MC37844-4.5	Krysten Dufort	GCMSV	04/17/15 14:46	Load on Instrument
MC37844-4.5	GCMSV	Krysten Dufort	04/20/15 14:38	Unload from Instrument
MC37844-4.5	Krysten Dufort	VOC Ref #3	04/20/15 14:38	Return to Storage
MC37844-5.1	Walk In Ref #22	Forrest Thompson	04/08/15 15:54	Retrieve from Storage
MC37844-5.1	Forrest Thompson	Walk In Ref #22	04/08/15 22:06	Return to Storage
MC37844-5.2	Walk In Ref #22	Alireza Zeighami	04/09/15 07:33	Retrieve from Storage
MC37844-5.2	Alireza Zeighami		04/15/15 07:13	Depleted
MC37844-5.3	VOC Ref #3	Nicole Estey	04/10/15 14:47	Retrieve from Storage
MC37844-5.3	Nicole Estey		04/10/15 18:40	Depleted
MC37844-5.4	VOC Ref #3	Nicole Estey	04/08/15 14:12	Retrieve from Storage
MC37844-5.4	Nicole Estey		04/08/15 20:57	Depleted
MC37844-5.6	VOC Ref #3	Krysten Dufort	04/17/15 14:46	Retrieve from Storage
MC37844-5.6	Krysten Dufort	GCMSV	04/17/15 14:46	Load on Instrument
MC37844-5.6	GCMSV	Krysten Dufort	04/20/15 14:38	Unload from Instrument
MC37844-5.6	Krysten Dufort	VOC Ref #3	04/20/15 14:38	Return to Storage
MC37844-6.2	VOC Ref #3	Krysten Dufort	04/17/15 13:47	Retrieve from Storage
MC37844-6.2	Krysten Dufort	GCMSV	04/17/15 13:47	Load on Instrument
MC37844-6.2	GCMSV	Krysten Dufort	04/20/15 14:38	Unload from Instrument
MC37844-6.2	Krysten Dufort	VOC Ref #3	04/20/15 14:38	Return to Storage
MC37844-7.1	VOC Ref #3	Nicole Estey	04/08/15 14:12	Retrieve from Storage

5.3

Accutest Internal Chain of Custody

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Received: 04/08/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC37844-7.1	Nicole Estey		04/08/15 20:57	Depleted
MC37844-7.2	VOC Ref #3	Nicole Estey	04/10/15 14:47	Retrieve from Storage
MC37844-7.2	Nicole Estey		04/10/15 18:40	Depleted

53

New England ACCUTEST LABORATORIES

GC/MS Volatiles

6

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1376-MB	V38187.D	1	04/17/15	KD	n/a	n/a	MSV1376

The QC reported here applies to the following samples: Method: SW846 8260C

MC37844-1, MC37844-2, MC37844-3, MC37844-4, MC37844-5, MC37844-6

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	

Method Blank Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1376-MB	V38187.D	1	04/17/15	KD	n/a	n/a	MSV1376

The QC reported here applies to the following samples: Method: SW846 8260C

MC37844-1, MC37844-2, MC37844-3, MC37844-4, MC37844-5, MC37844-6

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

6.1.1

Method Blank Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1376-MB	V38187.D	1	04/17/15	KD	n/a	n/a	MSV1376

The QC reported here applies to the following samples: Method: SW846 8260C

MC37844-1, MC37844-2, MC37844-3, MC37844-4, MC37844-5, MC37844-6

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	112%	72-133%
2037-26-5	Toluene-D8	104%	85-114%
460-00-4	4-Bromofluorobenzene	103%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

6.1.1

Blank Spike Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1376-BS	V38184.D	1	04/17/15	KD	n/a	n/a	MSV1376

The QC reported here applies to the following samples: Method: SW846 8260C

MC37844-1, MC37844-2, MC37844-3, MC37844-4, MC37844-5, MC37844-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	61.7	123	14-172
107-02-8	Acrolein	250	290	116	10-168
107-13-1	Acrylonitrile	50	48.4	97	41-158
71-43-2	Benzene	50	45.8	92	68-127
108-86-1	Bromobenzene	50	46.2	92	74-124
74-97-5	Bromochloromethane	50	45.7	91	68-135
75-27-4	Bromodichloromethane	50	53.1	106	72-144
75-25-2	Bromoform	50	44.0	88	59-147
74-83-9	Bromomethane	50	53.3	107	34-175
78-93-3	2-Butanone (MEK)	50	48.9	98	43-147
104-51-8	n-Butylbenzene	50	48.0	96	77-136
135-98-8	sec-Butylbenzene	50	47.7	95	75-134
98-06-6	tert-Butylbenzene	50	45.2	90	74-132
75-15-0	Carbon disulfide	50	48.7	97	34-171
56-23-5	Carbon tetrachloride	50	51.1	102	55-153
108-90-7	Chlorobenzene	50	45.9	92	71-123
75-00-3	Chloroethane	50	50.6	101	58-175
110-75-8	2-Chloroethyl vinyl ether	50	42.9	86	44-169
67-66-3	Chloroform	50	50.3	101	67-136
74-87-3	Chloromethane	50	46.9	94	25-182
95-49-8	o-Chlorotoluene	50	47.7	95	72-130
106-43-4	p-Chlorotoluene	50	47.9	96	73-127
124-48-1	Dibromochloromethane	50	44.3	89	73-139
95-50-1	1,2-Dichlorobenzene	50	44.6	89	77-125
541-73-1	1,3-Dichlorobenzene	50	44.9	90	77-124
106-46-7	1,4-Dichlorobenzene	50	44.0	88	73-128
75-71-8	Dichlorodifluoromethane	50	40.3	81	23-157
75-34-3	1,1-Dichloroethane	50	50.6	101	63-145
107-06-2	1,2-Dichloroethane	50	49.6	99	58-145
75-35-4	1,1-Dichloroethene	50	49.3	99	56-158
156-59-2	cis-1,2-Dichloroethene	50	47.2	94	67-133
156-60-5	trans-1,2-Dichloroethene	50	48.1	96	66-136
78-87-5	1,2-Dichloropropane	50	50.8	102	75-133
142-28-9	1,3-Dichloropropane	50	44.6	89	70-127
594-20-7	2,2-Dichloropropane	50	50.2	100	52-163
563-58-6	1,1-Dichloropropene	50	48.3	97	77-140

* = Outside of Control Limits.

6.2.1

Blank Spike Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1376-BS	V38184.D	1	04/17/15	KD	n/a	n/a	MSV1376

The QC reported here applies to the following samples: Method: SW846 8260C

MC37844-1, MC37844-2, MC37844-3, MC37844-4, MC37844-5, MC37844-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-01-5	cis-1,3-Dichloropropene	50	46.0	92	74-141
10061-02-6	trans-1,3-Dichloropropene	50	47.5	95	77-143
123-91-1	1,4-Dioxane	250	194	78	30-182
97-63-2	Ethyl methacrylate	50	47.4	95	64-131
100-41-4	Ethylbenzene	50	48.5	97	71-129
87-68-3	Hexachlorobutadiene	50	41.9	84	64-146
591-78-6	2-Hexanone	50	46.1	92	22-163
98-82-8	Isopropylbenzene	50	48.1	96	72-133
99-87-6	p-Isopropyltoluene	50	47.9	96	77-134
1634-04-4	Methyl Tert Butyl Ether	50	53.0	106	46-151
108-10-1	4-Methyl-2-pentanone (MIBK)	50	46.2	92	47-145
74-95-3	Methylene bromide	50	48.9	98	70-132
75-09-2	Methylene chloride	50	47.7	95	55-146
91-20-3	Naphthalene	50	34.9	70	39-176
103-65-1	n-Propylbenzene	50	50.1	100	74-134
100-42-5	Styrene	50	47.5	95	71-134
630-20-6	1,1,1,2-Tetrachloroethane	50	42.9	86	70-137
79-34-5	1,1,2,2-Tetrachloroethane	50	46.5	93	58-145
127-18-4	Tetrachloroethene	50	43.9	88	63-137
108-88-3	Toluene	50	48.9	98	75-126
87-61-6	1,2,3-Trichlorobenzene	50	37.7	75	27-181
120-82-1	1,2,4-Trichlorobenzene	50	39.2	78	40-176
71-55-6	1,1,1-Trichloroethane	50	48.5	97	68-144
79-00-5	1,1,2-Trichloroethane	50	50.8	102	72-133
79-01-6	Trichloroethene	50	47.1	94	73-126
75-69-4	Trichlorofluoromethane	50	48.8	98	43-152
96-18-4	1,2,3-Trichloropropane	50	36.8	74	58-141
95-63-6	1,2,4-Trimethylbenzene	50	48.9	98	76-129
108-67-8	1,3,5-Trimethylbenzene	50	48.2	96	71-127
108-05-4	Vinyl Acetate	50	57.9	116	10-170
75-01-4	Vinyl chloride	50	44.9	90	36-167
	m,p-Xylene	100	94.1	94	68-130
95-47-6	o-Xylene	50	46.7	93	69-126
1330-20-7	Xylene (total)	150	141	94	67-129

* = Outside of Control Limits.

6.2.1

Blank Spike Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1376-BS	V38184.D	1	04/17/15	KD	n/a	n/a	MSV1376

The QC reported here applies to the following samples: Method: SW846 8260C

MC37844-1, MC37844-2, MC37844-3, MC37844-4, MC37844-5, MC37844-6

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	105%	72-133%
2037-26-5	Toluene-D8	106%	85-114%
460-00-4	4-Bromofluorobenzene	104%	70-134%

6.2.1

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC37883-1MS	V38208.D	1	04/18/15	KD	n/a	n/a	MSV1376
MC37883-1MSD	V38209.D	1	04/18/15	KD	n/a	n/a	MSV1376
MC37883-1	V38199.D	1	04/17/15	KD	n/a	n/a	MSV1376

The QC reported here applies to the following samples: Method: SW846 8260C

MC37844-1, MC37844-2, MC37844-3, MC37844-4, MC37844-5, MC37844-6

CAS No.	Compound	MC37883-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		50	33.3	67	50	31.8	64	5	10-135/30
107-02-8	Acrolein	ND		250	281	112	250	268	107	5	10-175/30
107-13-1	Acrylonitrile	ND		50	50.2	100	50	48.4	97	4	37-163/30
71-43-2	Benzene	ND		50	45.5	91	50	47.4	95	4	61-138/30
108-86-1	Bromobenzene	ND		50	44.7	89	50	45.6	91	2	71-126/30
74-97-5	Bromochloromethane	ND		50	46.1	92	50	46.6	93	1	70-136/30
75-27-4	Bromodichloromethane	ND		50	55.2	110	50	56.0	112	1	73-146/30
75-25-2	Bromoform	ND		50	44.0	88	50	43.5	87	1	54-147/30
74-83-9	Bromomethane	ND		50	54.2	108	50	56.3	113	4	20-171/30
78-93-3	2-Butanone (MEK)	ND		50	37.1	74	50	34.7	69	7	33-127/30
104-51-8	n-Butylbenzene	ND		50	45.3	91	50	47.2	94	4	69-138/30
135-98-8	sec-Butylbenzene	ND		50	45.4	91	50	47.5	95	5	71-137/30
98-06-6	tert-Butylbenzene	ND		50	44.6	89	50	46.1	92	3	68-137/30
75-15-0	Carbon disulfide	ND		50	49.6	99	50	51.6	103	4	29-178/30
56-23-5	Carbon tetrachloride	ND		50	51.7	103	50	54.8	110	6	57-155/30
108-90-7	Chlorobenzene	ND		50	45.0	90	50	47.0	94	4	69-126/30
75-00-3	Chloroethane	ND		50	53.2	106	50	62.2	124	16	57-182/30
110-75-8	2-Chloroethyl vinyl ether	ND		50	ND	0* [a]	50	ND	0* [a]	nc	10-200/30
67-66-3	Chloroform	ND		50	52.0	104	50	52.3	105	1	66-142/30
74-87-3	Chloromethane	ND		50	51.7	103	50	49.7	99	4	18-182/30
95-49-8	o-Chlorotoluene	ND		50	46.5	93	50	48.3	97	4	60-145/30
106-43-4	p-Chlorotoluene	ND		50	47.0	94	50	48.5	97	3	64-138/30
124-48-1	Dibromochloromethane	ND		50	43.8	88	50	45.0	90	3	71-138/30
95-50-1	1,2-Dichlorobenzene	ND		50	43.6	87	50	44.1	88	1	75-125/30
541-73-1	1,3-Dichlorobenzene	ND		50	43.8	88	50	44.8	90	2	74-125/30
106-46-7	1,4-Dichlorobenzene	ND		50	43.2	86	50	44.0	88	2	72-128/30
75-71-8	Dichlorodifluoromethane	ND		50	37.6	75	50	42.3	85	12	23-159/30
75-34-3	1,1-Dichloroethane	ND		50	51.8	104	50	52.9	106	2	63-150/30
107-06-2	1,2-Dichloroethane	ND		50	53.2	106	50	53.4	107	0	57-150/30
75-35-4	1,1-Dichloroethene	ND		50	48.4	97	50	50.7	101	5	53-165/30
156-59-2	cis-1,2-Dichloroethene	ND		50	47.0	94	50	47.9	96	2	66-138/30
156-60-5	trans-1,2-Dichloroethene	ND		50	48.8	98	50	50.1	100	3	65-141/30
78-87-5	1,2-Dichloropropane	ND		50	51.5	103	50	53.4	107	4	76-136/30
142-28-9	1,3-Dichloropropane	ND		50	44.5	89	50	45.5	91	2	71-127/30
594-20-7	2,2-Dichloropropane	ND		50	43.2	86	50	45.0	90	4	33-175/30
563-58-6	1,1-Dichloropropene	ND		50	48.2	96	50	49.7	99	3	76-145/30

* = Outside of Control Limits.

6.3.1

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC37883-1MS	V38208.D	1	04/18/15	KD	n/a	n/a	MSV1376
MC37883-1MSD	V38209.D	1	04/18/15	KD	n/a	n/a	MSV1376
MC37883-1	V38199.D	1	04/17/15	KD	n/a	n/a	MSV1376

The QC reported here applies to the following samples: Method: SW846 8260C

MC37844-1, MC37844-2, MC37844-3, MC37844-4, MC37844-5, MC37844-6

6.3.1

CAS No.	Compound	MC37883-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		50	42.8	86	50	44.5	89	4	75-137/30
10061-02-6	trans-1,3-Dichloropropene	ND		50	46.4	93	50	47.5	95	2	77-139/30
123-91-1	1,4-Dioxane	ND		250	110	44	250	122	49	10	29-167/30
97-63-2	Ethyl methacrylate	ND		50	46.0	92	50	46.9	94	2	60-135/30
100-41-4	Ethylbenzene	ND		50	46.7	93	50	49.9	100	7	61-137/30
87-68-3	Hexachlorobutadiene	ND		50	37.9	76	50	39.7	79	5	59-141/30
591-78-6	2-Hexanone	ND		50	31.9	64	50	32.0	64	0	12-141/30
98-82-8	Isopropylbenzene	ND		50	45.5	91	50	48.2	96	6	64-141/30
99-87-6	p-Isopropyltoluene	ND		50	45.3	91	50	47.4	95	5	73-135/30
1634-04-4	Methyl Tert Butyl Ether	ND		50	50.4	101	50	52.0	104	3	34-160/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	43.7	87	50	44.6	89	2	47-143/30
74-95-3	Methylene bromide	ND		50	51.1	102	50	51.4	103	1	73-132/30
75-09-2	Methylene chloride	ND		50	47.6	95	50	49.6	99	4	52-154/30
91-20-3	Naphthalene	ND		50	34.2	68	50	34.1	68	0	21-185/30
103-65-1	n-Propylbenzene	ND		50	48.1	96	50	49.9	100	4	66-141/30
100-42-5	Styrene	ND		50	46.0	92	50	48.3	97	5	60-142/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		50	42.2	84	50	44.2	88	5	69-138/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	46.8	94	50	46.9	94	0	58-147/30
127-18-4	Tetrachloroethene	ND		50	42.5	85	50	45.2	90	6	60-140/30
108-88-3	Toluene	ND		50	48.7	97	50	51.0	102	5	74-131/30
87-61-6	1,2,3-Trichlorobenzene	ND		50	36.7	73	50	36.9	74	1	12-184/30
120-82-1	1,2,4-Trichlorobenzene	ND		50	37.6	75	50	38.1	76	1	30-175/30
71-55-6	1,1,1-Trichloroethane	ND		50	48.8	98	50	51.3	103	5	67-151/30
79-00-5	1,1,2-Trichloroethane	ND		50	52.6	105	50	53.5	107	2	73-134/30
79-01-6	Trichloroethene	ND		50	47.0	94	50	48.6	97	3	68-133/30
75-69-4	Trichlorofluoromethane	ND		50	53.5	107	50	54.0	108	1	40-159/30
96-18-4	1,2,3-Trichloropropane	ND		50	36.0	72	50	37.1	74	3	54-141/30
95-63-6	1,2,4-Trimethylbenzene	ND		50	46.9	94	50	49.3	99	5	62-142/30
108-67-8	1,3,5-Trimethylbenzene	ND		50	46.3	93	50	48.3	97	4	62-133/30
108-05-4	Vinyl Acetate	ND		50	57.3	115	50	57.7	115	1	10-169/30
75-01-4	Vinyl chloride	ND		50	47.4	95	50	49.1	98	4	29-176/30
	m,p-Xylene	ND		100	91.1	91	100	96.0	96	5	58-139/30
95-47-6	o-Xylene	ND		50	45.0	90	50	47.7	95	6	61-135/30
1330-20-7	Xylene (total)	ND		150	136	91	150	144	96	6	60-136/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL.

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC37883-1MS	V38208.D	1	04/18/15	KD	n/a	n/a	MSV1376
MC37883-1MSD	V38209.D	1	04/18/15	KD	n/a	n/a	MSV1376
MC37883-1	V38199.D	1	04/17/15	KD	n/a	n/a	MSV1376

The QC reported here applies to the following samples: Method: SW846 8260C

MC37844-1, MC37844-2, MC37844-3, MC37844-4, MC37844-5, MC37844-6

CAS No.	Surrogate Recoveries	MS	MSD	MC37883-1	Limits
1868-53-7	Dibromofluoromethane	110%	107%	115%	72-133%
2037-26-5	Toluene-D8	106%	108%	102%	85-114%
460-00-4	4-Bromofluorobenzene	104%	103%	105%	70-134%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

6.3.1

Volatile Internal Standard Area Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSV1376-CC1332	Injection Date:	04/17/15
Lab File ID:	V38184.D	Injection Time:	12:41
Instrument ID:	GCMSV	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	465519	6.54	737950	7.73	395536	11.08	428452	13.29	89641	3.51
Upper Limit [a]	931038	7.04	1475900	8.23	791072	11.58	856904	13.79	179282	4.01
Lower Limit [b]	232760	6.04	368975	7.23	197768	10.58	214226	12.79	44821	3.01
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV1376-BS	465519	6.54	737950	7.73	395536	11.08	428452	13.29	89641	3.51
MSV1376-MB	392941	6.55	663340	7.73	361669	11.08	380407	13.29	76444	3.51
ZZZZZZ	381048	6.54	662579	7.73	356209	11.08	370350	13.29	70142	3.50
MC37844-6	374070	6.55	651139	7.73	353606	11.08	369210	13.29	70463	3.50
MC37844-4	359061	6.55	621987	7.73	341756	11.08	358992	13.29	63522	3.51
ZZZZZZ	349244	6.55	614216	7.74	330918	11.08	347297	13.29	59086	3.51
ZZZZZZ	338648	6.55	589784	7.73	321265	11.08	331749	13.29	57458	3.50
ZZZZZZ	347750	6.55	610369	7.74	334891	11.08	350741	13.29	52802	3.51
ZZZZZZ	329734	6.55	581629	7.74	321744	11.08	337722	13.29	51312	3.51
ZZZZZZ	407892	6.54	664027	7.73	361941	11.08	390574	13.29	79023	3.50
ZZZZZZ	436818	6.54	702582	7.73	390686	11.08	404541	13.29	75017	3.50
ZZZZZZ	446028	6.55	720215	7.74	392492	11.08	414380	13.29	81099	3.51
ZZZZZZ	416253	6.55	703068	7.73	377670	11.08	402877	13.29	72416	3.51
MC37883-1	405403	6.55	694320	7.73	368858	11.08	379678	13.29	73832	3.50
MC37844-1	403545	6.55	697223	7.73	384984	11.08	403717	13.29	87625	3.51
MC37844-2	371210	6.54	645846	7.73	353316	11.08	361899	13.29	78130	3.50
MC37844-3	342107	6.55	600470	7.73	332673	11.08	348185	13.29	67611	3.51
MC37844-5	363485	6.54	630535	7.73	348764	11.08	381471	13.29	77981	3.50
ZZZZZZ	367941	6.55	672380	7.73	345510	11.08	347066	13.29	57967	3.51
MC37883-1MS	419972	6.54	677377	7.73	370087	11.08	402964	13.29	63389	3.50
MC37883-1MSD	413682	6.54	658709	7.73	360923	11.08	399353	13.29	63155	3.51

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8260C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC37844-1	V38200.D	117	105	103
MC37844-2	V38201.D	118	104	104
MC37844-3	V38202.D	122	105	102
MC37844-4	V38190.D	116	105	101
MC37844-5	V38203.D	119	106	105
MC37844-6	V38189.D	117	104	103
MC37883-1MS	V38208.D	110	106	104
MC37883-1MSD	V38209.D	107	108	103
MSV1376-BS	V38184.D	105	106	104
MSV1376-MB	V38187.D	112	104	103

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	72-133%
S2 = Toluene-D8	85-114%
S3 = 4-Bromofluorobenzene	70-134%

6.5.1

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42604-MB	R43419.D	1	04/14/15	KD	04/09/15	OP42604	MSR1599

The QC reported here applies to the following samples: Method: SW846 8270D

MC37844-1, MC37844-2, MC37844-3, MC37844-4, MC37844-5

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.5	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.29	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.51	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.47	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.34	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.59	ug/l	
95-48-7	2-Methylphenol	ND	10	0.30	ug/l	
	3&4-Methylphenol	ND	10	0.44	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.47	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.35	ug/l	
108-95-2	Phenol	ND	5.0	0.32	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.45	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.45	ug/l	
62-53-3	Aniline	ND	10	0.46	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.25	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.24	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.32	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.34	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.49	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.42	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.42	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.26	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.37	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.38	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.53	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.27	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	0.29	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.27	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.24	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	0.55	2.0	0.32	ug/l	J
118-74-1	Hexachlorobenzene	ND	5.0	0.24	ug/l	

7.1.1

7

Method Blank Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42604-MB	R43419.D	1	04/14/15	KD	04/09/15	OP42604	MSR1599

The QC reported here applies to the following samples: Method: SW846 8270D

MC37844-1, MC37844-2, MC37844-3, MC37844-4, MC37844-5

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.28	ug/l	
78-59-1	Isophorone	ND	5.0	0.47	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.36	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.40	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.51	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.48	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.25	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.25	ug/l	
110-86-1	Pyridine	ND	10	0.36	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	49%	10-79%
4165-62-2	Phenol-d5	33%	10-72%
118-79-6	2,4,6-Tribromophenol	82%	35-138%
4165-60-0	Nitrobenzene-d5	76%	30-116%
321-60-8	2-Fluorobiphenyl	71%	35-107%
1718-51-0	Terphenyl-d14	100%	43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

Method Blank Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42605-MB	I95054.D	1	04/10/15	MR	04/09/15	OP42605	MSI3555

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC37844-1, MC37844-2, MC37844-3, MC37844-4, MC37844-5

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.0075	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.0084	ug/l	
120-12-7	Anthracene	ND	0.10	0.0098	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.015	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.019	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.013	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.0074	ug/l	
86-73-7	Fluorene	ND	0.10	0.015	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.020	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	0.012	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	0.011	ug/l	
85-01-8	Phenanthrene	0.019	0.050	0.011	ug/l	J
129-00-0	Pyrene	ND	0.10	0.0085	ug/l	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	78%	26-121%
321-60-8	2-Fluorobiphenyl	63%	28-107%
1718-51-0	Terphenyl-d14	106%	29-129%

Blank Spike Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42604-BS	W21429.D	1	04/14/15	KD	04/09/15	OP42604	MSW918

The QC reported here applies to the following samples: Method: SW846 8270D

MC37844-1, MC37844-2, MC37844-3, MC37844-4, MC37844-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	50	17.6	35	10-73
95-57-8	2-Chlorophenol	50	40.1	80	47-106
59-50-7	4-Chloro-3-methyl phenol	50	43.8	88	50-111
120-83-2	2,4-Dichlorophenol	50	42.3	85	53-114
105-67-9	2,4-Dimethylphenol	50	32.6	65	23-110
51-28-5	2,4-Dinitrophenol	50	44.5	89	10-156
534-52-1	4,6-Dinitro-o-cresol	50	50.9	102	17-159
95-48-7	2-Methylphenol	50	35.4	71	40-92
	3&4-Methylphenol	100	70.7	71	38-86
88-75-5	2-Nitrophenol	50	44.0	88	53-115
100-02-7	4-Nitrophenol	50	23.9	48	10-83
87-86-5	Pentachlorophenol	50	41.6	83	41-122
108-95-2	Phenol	50	23.7	47	15-55
95-95-4	2,4,5-Trichlorophenol	50	44.2	88	52-120
88-06-2	2,4,6-Trichlorophenol	50	44.5	89	53-119
62-53-3	Aniline	50	32.1	64	26-87
101-55-3	4-Bromophenyl phenyl ether	50	45.4	91	65-127
85-68-7	Butyl benzyl phthalate	50	47.8	96	68-128
100-51-6	Benzyl Alcohol	50	40.5	81	13-108
91-58-7	2-Chloronaphthalene	50	42.5	85	58-120
106-47-8	4-Chloroaniline	50	40.8	82	48-106
111-91-1	bis(2-Chloroethoxy)methane	50	44.6	89	42-118
111-44-4	bis(2-Chloroethyl)ether	50	43.4	87	35-123
108-60-1	bis(2-Chloroisopropyl)ether	50	45.3	91	37-160
7005-72-3	4-Chlorophenyl phenyl ether	50	44.7	89	57-121
122-66-7	1,2-Diphenylhydrazine	50	46.3	93	54-128
121-14-2	2,4-Dinitrotoluene	50	47.6	95	64-127
606-20-2	2,6-Dinitrotoluene	50	44.1	88	55-135
91-94-1	3,3'-Dichlorobenzidine	50	39.7	79	49-141
132-64-9	Dibenzofuran	50	43.9	88	60-107
84-74-2	Di-n-butyl phthalate	50	46.1	92	68-117
117-84-0	Di-n-octyl phthalate	50	49.7	99	60-139
84-66-2	Diethyl phthalate	50	45.8	92	51-127
131-11-3	Dimethyl phthalate	50	45.0	90	22-147
117-81-7	bis(2-Ethylhexyl)phthalate	50	50.0	100	69-133
118-74-1	Hexachlorobenzene	50	45.7	91	62-131

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42604-BS	W21429.D	1	04/14/15	KD	04/09/15	OP42604	MSW918

The QC reported here applies to the following samples: Method: SW846 8270D

MC37844-1, MC37844-2, MC37844-3, MC37844-4, MC37844-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	11.8	24	10-74
67-72-1	Hexachloroethane	50	29.9	60	15-104
78-59-1	Isophorone	50	39.7	79	44-110
88-74-4	2-Nitroaniline	50	46.8	94	63-123
99-09-2	3-Nitroaniline	50	43.2	86	63-112
100-01-6	4-Nitroaniline	50	45.7	91	58-114
98-95-3	Nitrobenzene	50	42.0	84	37-130
62-75-9	n-Nitrosodimethylamine	50	36.8	74	18-80
621-64-7	N-Nitroso-di-n-propylamine	50	41.7	83	44-128
86-30-6	N-Nitrosodiphenylamine	50	42.1	84	62-107
110-86-1	Pyridine	50	18.2	36	10-77

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	60%	10-79%
4165-62-2	Phenol-d5	44%	10-72%
118-79-6	2,4,6-Tribromophenol	93%	35-138%
4165-60-0	Nitrobenzene-d5	91%	30-116%
321-60-8	2-Fluorobiphenyl	79%	35-107%
1718-51-0	Terphenyl-d14	100%	43-135%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42605-BS	I95055.D	1	04/10/15	MR	04/09/15	OP42605	MSI3555

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC37844-1, MC37844-2, MC37844-3, MC37844-4, MC37844-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	39.0	78	45-116
208-96-8	Acenaphthylene	50	37.9	76	34-110
120-12-7	Anthracene	50	40.3	81	50-117
56-55-3	Benzo(a)anthracene	50	48.4	97	55-139
50-32-8	Benzo(a)pyrene	50	45.4	91	48-131
205-99-2	Benzo(b)fluoranthene	50	47.5	95	49-141
191-24-2	Benzo(g,h,i)perylene	50	44.6	89	60-130
207-08-9	Benzo(k)fluoranthene	50	38.3	77	49-133
218-01-9	Chrysene	50	43.6	87	52-128
53-70-3	Dibenzo(a,h)anthracene	50	44.5	89	60-136
206-44-0	Fluoranthene	50	43.5	87	46-132
86-73-7	Fluorene	50	40.5	81	53-120
193-39-5	Indeno(1,2,3-cd)pyrene	50	45.5	91	57-134
90-12-0	1-Methylnaphthalene	50	34.4	69	41-105
91-57-6	2-Methylnaphthalene	50	35.2	70	36-111
85-01-8	Phenanthrene	50	39.7	79	50-120
129-00-0	Pyrene	50	44.5	89	48-127

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	84%	26-121%
321-60-8	2-Fluorobiphenyl	71%	28-107%
1718-51-0	Terphenyl-d14	105%	29-129%

* = Outside of Control Limits.

7.2.2

7

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42604-MS	R43421.D	1	04/14/15	KD	04/09/15	OP42604	MSR1599
OP42604-MSD	R43422.D	1	04/14/15	KD	04/09/15	OP42604	MSR1599
MC37900-3	R43423.D	1	04/14/15	KD	04/09/15	OP42604	MSR1599

The QC reported here applies to the following samples: Method: SW846 8270D

MC37844-1, MC37844-2, MC37844-3, MC37844-4, MC37844-5

7.3.1

7

CAS No.	Compound	MC37900-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		50	11.9	24	50	10.7	21	11	10-76/20
95-57-8	2-Chlorophenol	ND		50	29.9	60	50	32.7	65	9	37-112/20
59-50-7	4-Chloro-3-methyl phenol	ND		50	34.4	69	50	35.5	71	3	43-115/20
120-83-2	2,4-Dichlorophenol	ND		50	34.6	69	50	37.9	76	9	47-119/20
105-67-9	2,4-Dimethylphenol	ND		50	29.9	60	50	32.2	64	7	15-118/20
51-28-5	2,4-Dinitrophenol	ND		50	28.9	58	50	31.7	63	9	10-165/20
534-52-1	4,6-Dinitro-o-cresol	ND		50	40.3	81	50	41.9	84	4	13-165/20
95-48-7	2-Methylphenol	ND		50	29.5	59	50	29.3	59	1	30-99/20
	3&4-Methylphenol	ND		100	54.0	54	100	58.2	58	7	32-89/20
88-75-5	2-Nitrophenol	ND		50	33.4	67	50	37.1	74	10	44-120/20
100-02-7	4-Nitrophenol	ND		50	1.5	3* [a]	50	2.8	6* [a]	60* [b]	10-93/20
87-86-5	Pentachlorophenol	ND		50	27.2	54	50	18.7	37	37* [b]	33-131/20
108-95-2	Phenol	ND		50	16.1	32	50	14.8	30	8	15-53/20
95-95-4	2,4,5-Trichlorophenol	ND		50	42.2	84	50	44.9	90	6	45-126/20
88-06-2	2,4,6-Trichlorophenol	ND		50	29.7	59	50	33.3	67	11	45-124/20
62-53-3	Aniline	ND		50	24.7	49	50	27.5	55	11	18-91/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	43.7	87	50	44.2	88	1	57-131/20
85-68-7	Butyl benzyl phthalate	ND		50	38.9	78	50	40.6	81	4	58-135/20
100-51-6	Benzyl Alcohol	ND		50	38.4	77	50	39.2	78	2	10-109/20
91-58-7	2-Chloronaphthalene	ND		50	35.8	72	50	39.1	78	9	51-123/20
106-47-8	4-Chloroaniline	ND		50	33.5	67	50	36.2	72	8	39-109/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	33.7	67	50	36.4	73	8	36-120/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	31.0	62	50	32.7	65	5	30-124/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	33.1	66	50	34.0	68	3	25-171/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	40.4	81	50	42.4	85	5	51-122/20
122-66-7	1,2-Diphenylhydrazine	ND		50	34.9	70	50	35.5	71	2	47-130/20
121-14-2	2,4-Dinitrotoluene	ND		50	39.0	78	50	39.9	80	2	57-131/20
606-20-2	2,6-Dinitrotoluene	ND		50	16.9	34* [a]	50	39.8	80	81* [b]	52-135/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	33.2	66	50	36.0	72	8	25-157/20
132-64-9	Dibenzofuran	ND		50	37.6	75	50	39.6	79	5	54-110/20
84-74-2	Di-n-butyl phthalate	ND		50	39.1	78	50	39.7	79	2	60-122/20
117-84-0	Di-n-octyl phthalate	ND		50	38.4	77	50	40.9	82	6	54-142/20
84-66-2	Diethyl phthalate	ND		50	38.7	77	50	39.3	79	2	40-132/20
131-11-3	Dimethyl phthalate	ND		50	39.5	79	50	40.6	81	3	13-149/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		50	40.0	80	50	42.0	84	5	59-139/20
118-74-1	Hexachlorobenzene	ND		50	43.9	88	50	45.0	90	2	56-135/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42604-MS	R43421.D	1	04/14/15	KD	04/09/15	OP42604	MSR1599
OP42604-MSD	R43422.D	1	04/14/15	KD	04/09/15	OP42604	MSR1599
MC37900-3	R43423.D	1	04/14/15	KD	04/09/15	OP42604	MSR1599

The QC reported here applies to the following samples: Method: SW846 8270D

MC37844-1, MC37844-2, MC37844-3, MC37844-4, MC37844-5

7.3.1

7

CAS No.	Compound	MC37900-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		50	5.6	11	50	6.3	13	12	10-73/20
67-72-1	Hexachloroethane	ND		50	22.3	45	50	24.3	49	9	13-103/20
78-59-1	Isophorone	ND		50	29.4	59	50	31.5	63	7	41-110/20
88-74-4	2-Nitroaniline	ND		50	39.6	79	50	40.8	82	3	57-126/20
99-09-2	3-Nitroaniline	ND		50	36.3	73	50	37.2	74	2	53-118/20
100-01-6	4-Nitroaniline	ND		50	36.0	72	50	36.5	73	1	50-119/20
98-95-3	Nitrobenzene	ND		50	32.1	64	50	33.5	67	4	35-127/20
62-75-9	n-Nitrosodimethylamine	ND		50	24.2	48	50	26.1	52	8	11-82/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	31.3	63	50	33.5	67	7	39-129/20
86-30-6	N-Nitrosodiphenylamine	ND		50	37.4	75	50	38.3	77	2	55-112/20
110-86-1	Pyridine	ND		50	11.9	24	50	15.5	31	26* [b]	15-71/20

CAS No.	Surrogate Recoveries	MS	MSD	MC37900-3	Limits
367-12-4	2-Fluorophenol	43%	46%	36%	10-79%
4165-62-2	Phenol-d5	30%	32%	26%	10-72%
118-79-6	2,4,6-Tribromophenol	75%	83%	67%	35-138%
4165-60-0	Nitrobenzene-d5	68%	72%	58%	30-116%
321-60-8	2-Fluorobiphenyl	67%	74%	50%	35-107%
1718-51-0	Terphenyl-d14	91%	94%	87%	43-135%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(b) High RPD due to possible matrix interference and/or sample non-homogeneity.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42605-MS	I95056.D	1	04/10/15	MR	04/09/15	OP42605	MSI3555
OP42605-MSD	I95057.D	1	04/10/15	MR	04/09/15	OP42605	MSI3555
MC37900-4	I95058.D	1	04/10/15	MR	04/09/15	OP42605	MSI3555

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC37844-1, MC37844-2, MC37844-3, MC37844-4, MC37844-5

7.3.2

7

CAS No.	Compound	MC37900-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	34.0	68	50	36.0	72	6	36-124/20
208-96-8	Acenaphthylene	ND		50	32.8	66	50	34.7	69	6	25-116/20
120-12-7	Anthracene	ND		50	37.0	74	50	37.5	75	1	42-122/20
56-55-3	Benzo(a)anthracene	ND		50	43.4	87	50	44.0	88	1	45-145/20
50-32-8	Benzo(a)pyrene	ND		50	40.9	82	50	41.4	83	1	40-136/20
205-99-2	Benzo(b)fluoranthene	ND		50	42.2	84	50	43.0	86	2	41-148/20
191-24-2	Benzo(g,h,i)perylene	ND		50	38.4	77	50	41.4	83	8	48-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	35.7	71	50	35.1	70	2	45-131/20
218-01-9	Chrysene	0.018	J	50	39.6	79	50	40.1	80	1	41-135/20
53-70-3	Dibenzo(a,h)anthracene	ND		50	38.8	78	50	40.7	81	5	49-144/20
206-44-0	Fluoranthene	0.017	J	50	40.5	81	50	39.9	80	1	38-136/20
86-73-7	Fluorene	0.018	J	50	36.5	73	50	38.0	76	4	43-127/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	39.4	79	50	42.0	84	6	45-142/20
90-12-0	1-Methylnaphthalene	0.022	J	50	28.7	57	50	30.7	61	7	29-116/20
91-57-6	2-Methylnaphthalene	0.025	J	50	29.2	58	50	31.4	63	7	27-117/20
85-01-8	Phenanthrene	0.020	JB	50	36.0	72	50	36.4	73	1	41-126/20
129-00-0	Pyrene	0.017	J	50	41.3	83	50	41.2	82	0	41-131/20

CAS No.	Surrogate Recoveries	MS	MSD	MC37900-4	Limits
4165-60-0	Nitrobenzene-d5	69%	74%	59%	26-121%
321-60-8	2-Fluorobiphenyl	61%	65%	47%	28-107%
1718-51-0	Terphenyl-d14	95%	94%	86%	29-129%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3555-CC3483	Injection Date:	04/10/15
Lab File ID:	I95041.D	Injection Time:	08:47
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	268294	3.58	568648	4.61	331549	6.13	589872	7.44	423940	10.21	1080629	11.65
Upper Limit [a]	536588	4.08	1137296	5.11	663098	6.63	1179744	7.94	847880	10.71	2161258	12.15
Lower Limit [b]	134147	3.08	284324	4.11	165775	5.63	294936	6.94	211970	9.71	540315	11.15
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP42592-MB	280625	3.58	592909	4.61	345793	6.13	592546	7.44	441722	10.21	1107359	11.65
OP42592-BS	264844	3.58	569840	4.62	322042	6.13	571582	7.44	408954	10.22	983169	11.65
OP42592-BSD	287328	3.58	614936	4.62	344159	6.13	606800	7.44	425610	10.22	1016667	11.65
OP42592-MS	255967	3.58	551122	4.62	310525	6.13	544540	7.44	386404	10.21	925140	11.64
OP42592-MSD	265375	3.58	568248	4.62	321065	6.13	561558	7.44	405063	10.22	968555	11.64
MC37600-22	251092	3.57	540029	4.61	312811	6.13	542604	7.44	395824	10.21	991265	11.64
ZZZZZZ	230112	3.57	485924	4.61	284452	6.13	496452	7.44	360094	10.21	901514	11.64
ZZZZZZ	258786	3.57	552749	4.61	323107	6.13	563064	7.44	412026	10.21	1035315	11.64
ZZZZZZ	259525	3.57	549300	4.61	320448	6.13	554877	7.44	402870	10.21	1006448	11.64
ZZZZZZ	276714	3.57	584149	4.61	339980	6.13	572794	7.44	400886	10.21	947065	11.64
ZZZZZZ	296396	3.57	631338	4.61	361865	6.13	624207	7.44	440011	10.21	1042062	11.64
ZZZZZZ	294312	3.57	629573	4.61	360552	6.13	623762	7.44	440890	10.21	1071248	11.64
OP42605-MB	287530	3.57	604757	4.61	344070	6.13	583175	7.44	417003	10.21	1015591	11.64
OP42605-BS	267674	3.57	597935	4.61	341859	6.13	635093	7.44	467932	10.21	1166572	11.64
OP42605-MS	274580	3.57	590659	4.61	333892	6.13	602294	7.44	430775	10.21	1039027	11.64
OP42605-MSD	223537	3.57	490958	4.61	277949	6.13	513873	7.44	383873	10.21	971202	11.64
MC37900-4	213434	3.57	451453	4.61	258246	6.13	447836	7.44	343278	10.20	886033	11.63
ZZZZZZ	221621	3.57	467674	4.61	266338	6.13	458511	7.44	341749	10.20	856315	11.63
ZZZZZZ	194241	3.57	417054	4.61	240831	6.12	426463	7.44	319662	10.20	815461	11.63
ZZZZZZ	268158	3.57	573531	4.61	327332	6.13	563039	7.44	404283	10.20	985909	11.63
ZZZZZZ	265186	3.57	560421	4.61	318188	6.13	545470	7.44	389147	10.20	948504	11.63
ZZZZZZ	255652	3.57	545394	4.61	309734	6.13	528443	7.44	374517	10.20	901815	11.63
ZZZZZZ	292035	3.57	629263	4.61	359749	6.13	623935	7.45	471480	10.21	1145964	11.64
ZZZZZZ	281051	3.57	609782	4.61	360638	6.13	635510	7.44	483103	10.21	1197024	11.63
ZZZZZZ	266538	3.57	569275	4.61	320628	6.13	553312	7.44	396522	10.20	953085	11.63
ZZZZZZ	259710	3.57	550735	4.61	310602	6.13	538799	7.44	389435	10.20	977798	11.63
ZZZZZZ	266256	3.57	557288	4.61	317716	6.12	548334	7.44	390211	10.20	960837	11.63
ZZZZZZ	249076	3.57	527525	4.61	296359	6.13	509721	7.44	352213	10.20	869715	11.63
ZZZZZZ	302726	3.57	645558	4.61	375374	6.13	654442	7.44	476319	10.20	1160704	11.63
OP42603-MB	310214	3.57	653071	4.61	368628	6.13	623106	7.44	438439	10.20	1059025	11.63
OP42603-BS	279470	3.57	621831	4.61	355953	6.13	659473	7.44	491422	10.21	1213862	11.64
OP42603-MS	267345	3.57	593192	4.61	338591	6.13	617956	7.44	460297	10.21	1135253	11.64
OP42603-MSD	249659	3.57	556543	4.61	323584	6.13	599406	7.44	443942	10.21	1111857	11.64
MC37900-2	271181	3.57	570709	4.61	326871	6.13	565487	7.44	394309	10.20	951290	11.63
ZZZZZZ	271160	3.57	576568	4.61	331230	6.12	567854	7.44	398488	10.20	980175	11.63

7.4.1

7

Semivolatile Internal Standard Area Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL.

Check Std:	MSI3555-CC3483	Injection Date:	04/10/15
Lab File ID:	I95041.D	Injection Time:	08:47
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.4.1

7

Semivolatile Internal Standard Area Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3556-CC3483	Injection Date:	04/13/15
Lab File ID:	I95079.D	Injection Time:	08:13
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	305829	3.57	634683	4.61	365678	6.13	641351	7.44	455060	10.20	1160125	11.63
Upper Limit [a]	611658	4.07	1269366	5.11	731356	6.63	1282702	7.94	910120	10.70	2320250	12.13
Lower Limit [b]	152915	3.07	317342	4.11	182839	5.63	320676	6.94	227530	9.70	580063	11.13
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
ZZZZZZ	286037	3.57	595430	4.60	328110	6.12	555711	7.44	399294	10.20	1025097	11.63
ZZZZZZ	278829	3.57	581543	4.60	324338	6.12	550960	7.44	393948	10.20	1002451	11.63
MC37844-1	282326	3.57	589004	4.61	327072	6.12	545155	7.44	395233	10.20	1006893	11.63
MC37844-2	253890	3.57	531618	4.60	295314	6.12	494443	7.44	349084	10.20	878946	11.63
MC37844-3	230508	3.57	487076	4.61	269106	6.12	462530	7.44	335675	10.20	861524	11.63
MC37844-4	275988	3.57	571091	4.61	322849	6.13	554274	7.44	408169	10.20	1047582	11.63
MC37844-5	300594	3.57	612089	4.61	336940	6.13	574148	7.44	398020	10.21	972147	11.65
ZZZZZZ	248274	3.57	522265	4.61	297236	6.12	521062	7.44	377428	10.20	974452	11.63
ZZZZZZ	259095	3.57	543456	4.61	306970	6.12	523497	7.44	384660	10.20	995972	11.63
ZZZZZZ	248962	3.57	518920	4.60	292598	6.12	501511	7.44	373410	10.20	968865	11.63
ZZZZZZ	277610	3.57	576079	4.60	321250	6.12	555806	7.44	394984	10.20	1009508	11.63
ZZZZZZ	278486	3.57	581384	4.61	326242	6.12	560810	7.44	410951	10.20	1032795	11.63
OP42584-MB	285486	3.57	585490	4.60	327814	6.12	565595	7.44	397659	10.20	1008337	11.63
OP42584-BS	280558	3.57	581561	4.61	319372	6.13	564829	7.44	399891	10.21	986860	11.64
OP42584-MS	275743	3.57	574573	4.61	312702	6.13	557808	7.44	394256	10.21	978673	11.63
OP42584-MSD	258909	3.57	544237	4.61	299388	6.13	530336	7.44	374068	10.21	918952	11.63
MC37814-6	285575	3.57	601179	4.60	338229	6.12	588398	7.44	417124	10.20	1056744	11.63
ZZZZZZ	278585	3.57	581084	4.60	328311	6.12	564129	7.44	406817	10.20	1032972	11.63
ZZZZZZ	281294	3.57	577732	4.60	326652	6.12	569135	7.44	405114	10.20	1018111	11.63
ZZZZZZ	287872	3.57	596812	4.60	336566	6.12	579717	7.44	407052	10.20	1027091	11.63
ZZZZZZ	271584	3.57	569684	4.60	317073	6.12	544307	7.44	388664	10.20	991259	11.63
ZZZZZZ	278961	3.57	579081	4.60	323026	6.12	562812	7.44	394470	10.20	1007167	11.63
ZZZZZZ	270566	3.57	555765	4.60	309729	6.12	539046	7.44	384968	10.20	978737	11.63
ZZZZZZ	287980	3.57	600196	4.60	333260	6.12	563805	7.44	403329	10.20	1020668	11.63
ZZZZZZ	286267	3.57	588386	4.60	332347	6.12	574466	7.44	401955	10.20	1021926	11.63
ZZZZZZ	297317	3.57	621588	4.60	347529	6.12	600140	7.44	422512	10.20	1060175	11.63

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.

7.4.2

Semivolatile Internal Standard Area Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3556-CC3483	Injection Date:	04/13/15
Lab File ID:	I95079.D	Injection Time:	08:13
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.4.2

7

Semivolatile Internal Standard Area Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSR1599-CC1577	Injection Date:	04/13/15
Lab File ID:	R43397.D	Injection Time:	15:51
Instrument ID:	GCMSR	Method:	SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	679284	5.22	2575219	6.32	1525911	7.86	2507309	9.15	2431463	11.72	2154465	13.43
Upper Limit [a]	1358568	5.72	5150438	6.82	3051822	8.36	5014618	9.65	4862926	12.22	4308930	13.93
Lower Limit [b]	339642	4.72	1287610	5.82	762956	7.36	1253655	8.65	1215732	11.22	1077233	12.93
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP42616-MB	947882	5.22	3539292	6.32	2140037	7.86	3526652	9.15	3277447	11.72	2903744	13.43
OP42616-BS	832019	5.22	3160792	6.32	1866818	7.86	3033434	9.15	2741536	11.72	2395319	13.43
ZZZZZZ	932751	5.22	3464986	6.32	2070588	7.86	3319059	9.15	2908717	11.71	2475224	13.42
ZZZZZZ	762439	5.21	2838505	6.32	1716529	7.86	2756164	9.14	2487588	11.71	2144940	13.42
ZZZZZZ	825774	5.22	3107481	6.32	1861563	7.86	2985684	9.14	2654285	11.71	2315118	13.42
OP42604-MB	857699	5.21	3206831	6.32	1918089	7.86	3109636	9.15	2857363	11.71	2570252	13.42
OP42604-MS	843050	5.22	3137519	6.32	1874988	7.86	2971852	9.15	2738314	11.72	2488624	13.43
OP42604-MSD	860667	5.22	3223737	6.32	1908998	7.86	3053256	9.15	2736838	11.72	2462236	13.43
MC37900-3	808370	5.21	2966494	6.32	1824536	7.86	2947397	9.14	2648724	11.71	2416566	13.42
ZZZZZZ	713979	5.21	2668677	6.32	1607720	7.86	2602275	9.14	2315125	11.71	2014837	13.42

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.4.3

7

Semivolatile Internal Standard Area Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW918-CC902	Injection Date:	04/14/15
Lab File ID:	W21422.D	Injection Time:	08:58
Instrument ID:	GCMSW	Method:	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	267577	5.18	1026356	6.29	593931	7.83	1000128	9.12	1003222	11.68	974823	13.38
Upper Limit [a]	535154	5.68	2052712	6.79	1187862	8.33	2000256	9.62	2006444	12.18	1949646	13.88
Lower Limit [b]	133789	4.68	513178	5.79	296966	7.33	500064	8.62	501611	11.18	487412	12.88
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
MC37844-1	306628	5.18	1164333	6.29	659577	7.83	1105233	9.12	1104639	11.68	1071205	13.38
MC37844-2	302292	5.18	1135411	6.29	643754	7.83	1056489	9.12	1045228	11.68	1039925	13.38
MC37844-3	291258	5.18	1078525	6.29	631844	7.83	1037339	9.12	1034760	11.68	1022463	13.38
MC37844-4	309588	5.18	1164526	6.29	674947	7.83	1105578	9.12	1140547	11.68	1110648	13.38
MC37844-5	316403	5.18	1182531	6.29	683283	7.83	1118512	9.12	1134896	11.68	1141910	13.38
OP42633-MB	293107	5.18	1088931	6.28	645182	7.83	1049239	9.12	1068248	11.68	1031303	13.38
OP42604-BS	320134	5.18	1203899	6.29	691761	7.83	1151567	9.12	1173935	11.68	1134184	13.38
OP42633-BS	281290	5.18	1062525	6.29	617618	7.83	1036808	9.12	1049382	11.68	1016828	13.38
OP42633-MS	272625	5.18	1028777	6.29	596364	7.83	1002567	9.12	992997	11.68	967736	13.38
OP42633-MSD	270528	5.18	1034466	6.29	598818	7.83	1021753	9.12	1015054	11.68	979261	13.38
MC37900-9	270125	5.18	1021396	6.28	609332	7.83	995385	9.12	1001664	11.68	952928	13.38
ZZZZZZ	311782	5.18	1153538	6.28	651675	7.83	1022586	9.12	1013173	11.70	1016777	13.41
ZZZZZZ	259642	5.18	986484	6.29	563081	7.83	917927	9.12	900874	11.68	911589	13.38
OP42662-LB	308554	5.18	1140753	6.29	659263	7.83	1102277	9.12	1096914	11.68	1089372	13.38
OP42662-MB	308554	5.18	1140753	6.29	659263	7.83	1102277	9.12	1096914	11.68	1089372	13.38
OP42662-BS	293032	5.18	1113859	6.29	635618	7.83	1070388	9.12	1033319	11.69	1028043	13.38
OP42662-MS [c]	245978	5.18	913880	6.29	533260	7.83	861096	9.12	886707	11.69	892816	13.39
OP42662-MSD [c]	257687	5.18	947987	6.29	541690	7.83	869898	9.12	900436	11.68	922536	13.39
MC37870-1	255818	5.18	930651	6.29	544738	7.83	887504	9.12	918834	11.69	911697	13.39
ZZZZZZ	238147	5.18	902749	6.29	514785	7.84	855271	9.13	866549	11.69	800029	13.40
ZZZZZZ	257466	5.18	955480	6.29	549766	7.83	884389	9.12	904416	11.68	896206	13.39
ZZZZZZ	255482	5.18	940784	6.29	545034	7.83	863280	9.12	894539	11.69	857318	13.39
ZZZZZZ	293447	5.18	1073607	6.29	615825	7.83	1015144	9.12	1055876	11.68	1010156	13.38
ZZZZZZ	289462	5.18	1061992	6.29	606139	7.83	994737	9.12	1058513	11.68	1015549	13.38
ZZZZZZ	248851	5.18	918072	6.29	526238	7.83	855484	9.13	895083	11.70	901973	13.39
ZZZZZZ	284616	5.18	1052386	6.29	611160	7.83	994113	9.12	1022984	11.68	982864	13.38

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.

7.4.4

Semivolatile Internal Standard Area Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW918-CC902	Injection Date:	04/14/15
Lab File ID:	W21422.D	Injection Time:	08:58
Instrument ID:	GCMSW	Method:	SW846 8270D

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Elevated RL due to dilution required for matrix interference.

7.4.4

7

Semivolatile Surrogate Recovery Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8270D Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC37844-1	W21423.D	53	39	85	81	70	97
MC37844-2	W21424.D	43	33	84	72	73	93
MC37844-3	W21425.D	43	33	87	73	72	95
MC37844-4	W21426.D	35	25	70	58	55	84
MC37844-5	W21427.D	49	36	87	81	78	87
OP42604-BS	W21429.D	60	44	93	91	79	100
OP42604-MB	R43419.D	49	33	82	76	71	100
OP42604-MS	R43421.D	43	30	75	68	67	91
OP42604-MSD	R43422.D	46	32	83	72	74	94

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	10-79%
S2 = Phenol-d5	10-72%
S3 = 2,4,6-Tribromophenol	35-138%
S4 = Nitrobenzene-d5	30-116%
S5 = 2-Fluorobiphenyl	35-107%
S6 = Terphenyl-d14	43-135%

Semivolatile Surrogate Recovery Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8270D BY SIM Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC37844-1	I95082.D	78	63	104
MC37844-2	I95083.D	69	67	99
MC37844-3	I95084.D	69	67	100
MC37844-4	I95085.D	57	50	87
MC37844-5	I95086.D	78	72	95
OP42605-BS	I95055.D	84	71	105
OP42605-MB	I95054.D	78	63	106
OP42605-MS	I95056.D	69	61	95
OP42605-MSD	I95057.D	74	65	94

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	26-121%
S2 = 2-Fluorobiphenyl	28-107%
S3 = Terphenyl-d14	29-129%

7.5.2

7

New England ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

8

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries

Method Blank Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42587-MB	BB62732.D	1	04/10/15	NK	04/08/15	OP42587	GBB3417

The QC reported here applies to the following samples: Method: SW846 8011

MC37844-3, MC37844-5

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.0061	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.0061	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	Bromofluorobenzene (S)	107%	60-140%
460-00-4	Bromofluorobenzene (S)	117%	60-140%

8.1.1

Method Blank Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42634-MB	BB62752.D	1	04/13/15	NK	04/10/15	OP42634	GBB3418

The QC reported here applies to the following samples: Method: SW846 8011

MC37844-1, MC37844-2, MC37844-4, MC37844-7

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.0061	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.0061	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	Bromofluorobenzene (S)	140%	60-140%
460-00-4	Bromofluorobenzene (S)	91%	60-140%

8.1.2

Blank Spike Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42587-BS	BB62733.D	1	04/10/15	NK	04/08/15	OP42587	GBB3417

The QC reported here applies to the following samples: Method: SW846 8011

MC37844-3, MC37844-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.082	115	45-149
106-93-4	1,2-Dibromoethane	0.071	0.082	115	51-149

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	109%	60-140%
460-00-4	Bromofluorobenzene (S)	116%	60-140%

8.2.1

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42634-BS	BB62753.D	1	04/13/15	NK	04/10/15	OP42634	GBB3418

The QC reported here applies to the following samples: Method: SW846 8011

MC37844-1, MC37844-2, MC37844-4, MC37844-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.074	104	45-149
106-93-4	1,2-Dibromoethane	0.071	0.072	101	51-149

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	125%	60-140%
460-00-4	Bromofluorobenzene (S)	98%	60-140%

8.2.2

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42587-MS	BB62734.D	1	04/10/15	NK	04/08/15	OP42587	GBB3417
OP42587-MSD	BB62735.D	1	04/10/15	NK	04/08/15	OP42587	GBB3417
MC37600-19	BB62736.D	1	04/10/15	NK	04/08/15	OP42587	GBB3417

The QC reported here applies to the following samples: Method: SW846 8011

MC37844-3, MC37844-5

CAS No.	Compound	MC37600-19 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	ND		0.071	0.097	137	0.071	0.088	124	10	31-169/30
106-93-4	1,2-Dibromoethane	ND		0.071	0.096	135	0.071	0.088	124	9	34-175/30

CAS No.	Surrogate Recoveries	MS	MSD	MC37600-19	Limits
460-00-4	Bromofluorobenzene (S)	125%	106%	116%	60-140%
460-00-4	Bromofluorobenzene (S)	130%	112%	119%	60-140%

8.3.1

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42634-MS	BB62754.D	1	04/13/15	NK	04/10/15	OP42634	GBB3418
OP42634-MSD	BB62755.D	1	04/13/15	NK	04/10/15	OP42634	GBB3418
MC37900-10	BB62756.D	1	04/13/15	NK	04/10/15	OP42634	GBB3418

The QC reported here applies to the following samples: Method: SW846 8011

MC37844-1, MC37844-2, MC37844-4, MC37844-7

CAS No.	Compound	MC37900-10 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	ND		0.071	0.077	108	0.071	0.066	93	15	31-169/30
106-93-4	1,2-Dibromoethane	ND		0.071	0.082	115	0.071	0.076	107	8	34-175/30

CAS No.	Surrogate Recoveries	MS	MSD	MC37900-10	Limits
460-00-4	Bromofluorobenzene (S)	129%	115%	109%	60-140%
460-00-4	Bromofluorobenzene (S)	99%	99%	104%	60-140%

8.3.2

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8011 Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
MC37844-1	BB62765.D	115	85
MC37844-2	BB62766.D	116	86
MC37844-3	BB62743.D	110	113
MC37844-4	BB62767.D	116	87
MC37844-5	BB62745.D	107	120
MC37844-7	BB62769.D	116	86
OP42587-BS	BB62733.D	109	116
OP42587-MB	BB62732.D	107	117
OP42587-MS	BB62734.D	125	130
OP42587-MSD	BB62735.D	106	112
OP42634-BS	BB62753.D	125	98
OP42634-MB	BB62752.D	140	91
OP42634-MS	BB62754.D	129	99
OP42634-MSD	BB62755.D	115	99

Surrogate Compounds	Recovery Limits
S1 = Bromofluorobenzene (S)	60-140%

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

8.4.1

GC Surrogate Retention Time Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBB3417-CC3417	Injection Date:	04/10/15
Lab File ID:	BB62731A.D	Injection Time:	10:03
Instrument ID:	GCBB	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	6.93	7.35

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP42587-MB	BB62732.D	04/10/15	11:56	6.94	7.35
OP42587-BS	BB62733.D	04/10/15	12:25	6.94	7.35
OP42587-MS	BB62734.D	04/10/15	12:53	6.94	7.35
OP42587-MSD	BB62735.D	04/10/15	13:21	6.94	7.35
MC37600-19	BB62736.D	04/10/15	13:49	6.94	7.35

Surrogate Compounds

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.5.1

GC Surrogate Retention Time Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBB3417-CC3417	Injection Date:	04/10/15
Lab File ID:	BB62742.D	Injection Time:	16:38
Instrument ID:	GCBB	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	6.94	7.35

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
MC37844-3	BB62743.D	04/10/15	17:07	6.94	7.35
MC37844-5	BB62745.D	04/10/15	18:04	6.93	7.35
GBB3417-ECC341	BB62749.D	04/10/15	19:58	6.94	7.35

Surrogate Compounds

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.5.2

GC Surrogate Retention Time Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	CBB3418-CC3418	Injection Date:	04/13/15
Lab File ID:	BB62751.D	Injection Time:	12:17
Instrument ID:	GCBB	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	6.93	7.34

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP42634-MB	BB62752.D	04/13/15	12:58	6.93	7.34
OP42634-BS	BB62753.D	04/13/15	13:26	6.93	7.34
OP42634-MS	BB62754.D	04/13/15	13:54	6.93	7.34
OP42634-MSD	BB62755.D	04/13/15	14:22	6.93	7.33
MC37900-10	BB62756.D	04/13/15	14:51	6.93	7.34
ZZZZZZ	BB62757.D	04/13/15	15:18	6.93	7.34
ZZZZZZ	BB62758.D	04/13/15	15:46	6.93	7.34
ZZZZZZ	BB62759.D	04/13/15	16:14	6.93	7.34
ZZZZZZ	BB62760.D	04/13/15	16:42	6.93	7.33
ZZZZZZ	BB62761.D	04/13/15	17:10	6.93	7.33

Surrogate Compounds

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.5.3

GC Surrogate Retention Time Summary

Job Number: MC37844
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBB3418-CC3418	Injection Date:	04/13/15
Lab File ID:	BB62762.D	Injection Time:	17:38
Instrument ID:	GCBB	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	6.92	7.32

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
MC37844-1	BB62765.D	04/13/15	19:04	6.92	7.32
MC37844-2	BB62766.D	04/13/15	19:33	6.92	7.32
MC37844-4	BB62767.D	04/13/15	20:02	6.92	7.32
MC37844-7	BB62769.D	04/13/15	21:00	6.92	7.32
ZZZZZZ	BB62770.D	04/13/15	21:31	6.91	7.31
GBB3418-ECC341	BB62771.D	04/13/15	22:02	6.92	7.32

Surrogate Compounds

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.5.4

Roxana Groundwater Quarterly – 2nd Quarter 2015 Data Review

Laboratory SDG: MC37883

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 4/23/2015

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2014

Sample Identification	Sample Identification
MW26-ROX-040815	MW11-ROX-040815
MW10-ROX-040815-EB	MW10-ROX-040815
TB-ROX-040815-HCL	TB-ROX-040815-ST

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 SVOCs and PAHs were detected in the method blank, and although not indicated in laboratory case narrative, acetone was detected in the equipment blank. 2-Chloroethyl vinyl ether MS/MSD recoveries and VOC by 8011 MS/MSD RPDs were outside evaluation criteria in sample MW26-ROX-040815. These issues are addressed further in the appropriate sections below. Additionally, the initial calibration verification for 2-hexanone and hexachlorocyclopentadiene exceeded 30 percent difference (%D).

The cooler receipt form indicated that two of two coolers were received by the laboratory at temperatures of 1.2°C and 1.7°C, which are outside the 4ºC ± 2ºC criteria. Samples were received in good condition; therefore, no qualification of data was required.

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
MW10-ROX-040815-EB	VOCs	Acetone	4.7 µg/L
OP42630-MB	SVOCs	Butyl benzyl phthalate	0.42 µg/L
OP42630-MB	SVOCs	Di-n-butyl phthalate	0.28 µg/L
OP42631-MB	PAHs	1-Methylnaphthalene	0.022 µg/L
OP42631-MB	PAHs	2-Methylnaphthalene	0.023 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. Please see section 12.0 of this review for additional qualifications regarding samples associated with 2-methylnaphthalene in method blank OP42631-MB.

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

Yes

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

Yes, sample MW26-ROX-040815 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
MW26-ROX-040815	VOCs	2-Chloroethyl vinyl ether	**0/0**	NA	10-200/30
MW26-ROX-040815	VOCs by 8011	1,2-Dibromo-3-chloropropane	131/86	**41**	31-169/30
MW26-ROX-040815	VOCs by 8011	1,2-Dibromoethane	146/90	**46**	34-175/30

LCS/LCSD recoveries were within evaluation criteria; no further qualification of data was required.

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

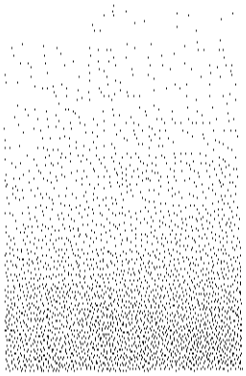
Were additional qualifications applied?

Yes, professional judgment was used to qualify as estimated, however not reject, data that was associated with 2-methylnaphthalene in method blank OP42631-MB, due to comparable historical detections.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW11-ROX-040815	PAHs	2-Methylnaphthalene	-	**U**
MW10-ROX-040815	PAHs	2-Methylnaphthalene	-	**U**

New England ACCUTEST LABORATORIES

04/23/15



Technical Report for

Shell Oil

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana,

Accutest Job Number: MC37883

Sampling Date: 04/08/15

Report to:

AECOM, INC.

Melissa.mansker@urs.com

ATTN: Melissa Mansker

Total number of pages in report: **93**

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Reviewed on 4/23/15

Reza Tand
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.

Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

Sections: 1 2 3 4 5 6 7 8

Table of Contents

Section 1: Sample Summary **3**
Section 2: Case Narrative/Conformance Summary **4**
Section 3: Summary of Hits 6
Section 4: Sample Results **7**
4.1: MC37883-1: MW26-ROX-040815 8
4.2: MC37883-2: MW11-ROX-040815 15
4.3: MC37883-3: MW10-ROX-040815-EB 22
4.4: MC37883-4: MW10-ROX-040815 29
4.5: MC37883-5: TB-ROX-040815-HCL 36
4.6: MC37883-6: TB-ROX-040815-ST 39
Section 5: Misc. Forms **40**
5.1: Chain of Custody 41
5.2: Sample Tracking Chronicle 43
5.3: Internal Chain of Custody 45
Section 6: GC/MS Volatiles - QC Data Summaries **47**
6.1: Method Blank Summary 48
6.2: Blank Spike Summary 54
6.3: Blank Spike/Blank Spike Duplicate Summary 57
6.4: Matrix Spike/Matrix Spike Duplicate Summary 60
6.5: Internal Standard Area Summaries 66
6.6: Surrogate Recovery Summaries 68
Section 7: GC/MS Semi-volatiles - QC Data Summaries **69**
7.1: Method Blank Summary 70
7.2: Blank Spike Summary 73
7.3: Blank Spike/Blank Spike Duplicate Summary 75
7.4: Matrix Spike/Matrix Spike Duplicate Summary 76
7.5: Internal Standard Area Summaries 79
7.6: Surrogate Recovery Summaries 86
Section 8: GC Volatiles - QC Data Summaries **88**
8.1: Method Blank Summary 89
8.2: Blank Spike Summary 90
8.3: Matrix Spike/Matrix Spike Duplicate Summary 91
8.4: Surrogate Recovery Summaries 92
8.5: GC Surrogate Retention Time Summaries 93

Sample Summary

Shell Oil

Job No: MC37883

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
MC37883-1	04/08/15	11:30	DCBT	04/09/15	AQ	Ground Water	MW26-ROX-040815
MC37883-1D	04/08/15	11:30	DCBT	04/09/15	AQ	Water Dup/MSD	MW26-ROX-040815
MC37883-1S	04/08/15	11:30	DCBT	04/09/15	AQ	Water Matrix Spike	MW26-ROX-040815
MC37883-2	04/08/15	14:45	DCBT	04/09/15	AQ	Ground Water	MW11-ROX-040815
MC37883-3	04/08/15	15:15	DCBT	04/09/15	AQ	Equipment Blank	MW10-ROX-040815-EB
MC37883-4	04/08/15	15:50	DCBT	04/09/15	AQ	Ground Water	MW10-ROX-040815
MC37883-5	04/08/15	00:00	DCBT	04/09/15	AQ	Trip Blank Water	TB-ROX-040815-HCL
MC37883-6	04/08/15	00:00	DCBT	04/09/15	AQ	Trip Blank Water	TB-ROX-040815-ST

ACCUTEST LABORATORIES

2

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	MC37883
Site:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central	**Report Date**	4/23/2015 11:53:54 AM

4 Sample(s) and 2 Trip Blank(s) were collected on 04/08/2015 and were received at Accutest on 04/09/2015 properly preserved, at 1.2 Deg. C and intact. These Samples received an Accutest job number of MC37883. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report. 1-Chlorohexane, Benzenethiol, Dibenz(a,h)acridine, Indene, and Quinoline were searched in the library search and reported only if detections were found.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix AQ **Batch ID:** MSV1376

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC37883-1MS, MC37883-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- MC37883-1MS/MSD Recovery(s) for 2-Chloroethyl vinyl ether are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Initial calibration verification standard MSV1332-ICV1332 for 2-hexanone exceed 30% Difference (response bias high). Associated samples are non-detect for this compound.

Matrix AQ **Batch ID:** MSV1378

- All samples were analyzed within the recommended method holding time.
- Sample(s) D69816-1MS, D69816-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- D69816-1MS/MSD Recovery(s) for 2-Chloroethyl vinyl ether are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.

Extractables by GCMS By Method SW846 8270D

Matrix AQ **Batch ID:** OP42630

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC37883-1MS, MC37883-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Initial calibration verification MSW902-ICV902, file W21009 for Hexachlorocyclopentadiene exceed 30% Difference.

Extractables by GCMS By Method SW846 8270D BY SIM

Matrix AQ **Batch ID:** OP42631

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC37883-1MS, MC37883-1MSD were used as the QC samples indicated.
- Sample(s) MC37883-2, MC37883-4 have compound(s) reported with a "B" qualifier, indicating analyte is found in the associated method blank.

Volatiles by GC By Method SW846 8011

Matrix AQ	Batch ID: OP42703

- All samples were extracted within the recommended method holding time.
- Sample(s) MC37883-1MS, MC37883-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- All samples were analyzed within the recommended method holding time.
- RPD(s) for MSD for 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane are outside control limits for sample OP42703-MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC37883).

Summary of Hits

Job Number: MC37883
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Collected: 04/08/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC37883-1	MW26-ROX-040815					
No hits reported in this sample.						
MC37883-2	MW11-ROX-040815					
2-Methylnaphthalene		0.022 JB J	2.2	0.012	ug/l	SW846 8270D BY SIM
MC37883-3	MW10-ROX-040815-EB					
Acetone		4.7 J	10	2.0	ug/l	SW846 8260C
MC37883-4	MW10-ROX-040815					
Fluoranthene		0.016 J	0.10	0.0076	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		0.020 JB J	2.0	0.011	ug/l	SW846 8270D BY SIM
Phenanthrene		0.019 J	0.051	0.011	ug/l	SW846 8270D BY SIM
MC37883-5	TB-ROX-040815-HCL					
No hits reported in this sample.						
MC37883-6	TB-ROX-040815-ST					
No hits reported in this sample.						

New England ACCUTEST LABORATORIES

4

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW26-ROX-040815		
Lab Sample ID:	MC37883-1	Date Sampled:	04/08/15
Matrix:	AQ - Ground Water	Date Received:	04/09/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38199.D	1	04/17/15	KD	n/a	n/a	MSV1376
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW26-ROX-040815		
Lab Sample ID:	MC37883-1	Date Sampled:	04/08/15
Matrix:	AQ - Ground Water	Date Received:	04/09/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW26-ROX-040815		
Lab Sample ID:	MC37883-1	Date Sampled:	04/08/15
Matrix:	AQ - Ground Water	Date Received:	04/09/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	115%		72-133%
2037-26-5	Toluene-D8	102%		85-114%
460-00-4	4-Bromofluorobenzene	105%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW26-ROX-040815		
Lab Sample ID:	MC37883-1	Date Sampled:	04/08/15
Matrix:	AQ - Ground Water	Date Received:	04/09/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21563.D	1	04/21/15	KD	04/10/15	OP42630	MSW922
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.2	0.30	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.52	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.48	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.35	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.61	ug/l	
95-48-7	2-Methylphenol	ND	10	0.31	ug/l	
	3&4-Methylphenol	ND	10	0.46	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.48	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.36	ug/l	
108-95-2	Phenol	ND	5.2	0.33	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.47	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.46	ug/l	
62-53-3	Aniline	ND	10	0.47	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	0.25	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.33	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.2	0.35	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.37	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	0.51	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	0.43	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	0.43	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	0.27	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.2	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.38	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.39	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	0.55	ug/l	
132-64-9	Dibenzofuran	ND	2.1	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.2	0.28	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.2	0.30	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW26-ROX-040815		
Lab Sample ID:	MC37883-1	Date Sampled:	04/08/15
Matrix:	AQ - Ground Water	Date Received:	04/09/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.2	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	5.2	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.33	ug/l	
118-74-1	Hexachlorobenzene	ND	5.2	0.25	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.2	0.29	ug/l	
78-59-1	Isophorone	ND	5.2	0.48	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.37	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.42	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.53	ug/l	
98-95-3	Nitrobenzene	ND	5.2	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	0.26	ug/l	
110-86-1	Pyridine	ND	10	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	28%		10-79%
4165-62-2	Phenol-d5	20%		10-72%
118-79-6	2,4,6-Tribromophenol	62%		35-138%
4165-60-0	Nitrobenzene-d5	50%		30-116%
321-60-8	2-Fluorobiphenyl	48%		35-107%
1718-51-0	Terphenyl-d14	72%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW26-ROX-040815		
Lab Sample ID:	MC37883-1	Date Sampled:	04/08/15
Matrix:	AQ - Ground Water	Date Received:	04/09/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95240.D	1	04/20/15	MR	04/10/15	OP42631	MSI3562
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.0077	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.0087	ug/l	
120-12-7	Anthracene	ND	0.10	0.010	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.052	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.052	0.020	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.0076	ug/l	
86-73-7	Fluorene	ND	0.10	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.021	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.1	0.013	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.1	0.011	ug/l	
85-01-8	Phenanthrene	ND	0.052	0.011	ug/l	
129-00-0	Pyrene	ND	0.10	0.0088	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	50%		26-121%
321-60-8	2-Fluorobiphenyl	45%		28-107%
1718-51-0	Terphenyl-d14	74%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW26-ROX-040815		
Lab Sample ID:	MC37883-1	Date Sampled:	04/08/15
Matrix:	AQ - Ground Water	Date Received:	04/09/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62805.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	36.4 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0059	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0059	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	99%		60-140%
460-00-4	Bromofluorobenzene (S)	107%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW11-ROX-040815		
Lab Sample ID:	MC37883-2	Date Sampled:	04/08/15
Matrix:	AQ - Ground Water	Date Received:	04/09/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38257.D	1	04/21/15	KD	n/a	n/a	MSV1378
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW11-ROX-040815		
Lab Sample ID:	MC37883-2	Date Sampled:	04/08/15
Matrix:	AQ - Ground Water	Date Received:	04/09/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW11-ROX-040815		
Lab Sample ID:	MC37883-2	Date Sampled:	04/08/15
Matrix:	AQ - Ground Water	Date Received:	04/09/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	118%		72-133%
2037-26-5	Toluene-D8	105%		85-114%
460-00-4	4-Bromofluorobenzene	100%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW11-ROX-040815		
Lab Sample ID:	MC37883-2	Date Sampled:	04/08/15
Matrix:	AQ - Ground Water	Date Received:	04/09/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21564.D	1	04/21/15	KD	04/10/15	OP42630	MSW922
Run #2							

	Initial Volume	Final Volume
Run #1	920 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	2.7	ug/l	
95-57-8	2-Chlorophenol	ND	5.4	0.32	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.51	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	0.37	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	0.64	ug/l	
95-48-7	2-Methylphenol	ND	11	0.33	ug/l	
	3&4-Methylphenol	ND	11	0.48	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.51	ug/l	
100-02-7	4-Nitrophenol	ND	22	1.4	ug/l	
87-86-5	Pentachlorophenol	ND	11	0.38	ug/l	
108-95-2	Phenol	ND	5.4	0.35	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.49	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.49	ug/l	
62-53-3	Aniline	ND	11	0.50	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.4	0.27	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.4	0.26	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.35	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.4	0.37	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.39	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.4	0.54	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.4	0.45	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.4	0.46	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.4	0.28	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.4	0.32	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.40	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.41	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.4	0.58	ug/l	
132-64-9	Dibenzofuran	ND	2.2	0.27	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.4	0.29	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.4	0.31	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW11-ROX-040815		
Lab Sample ID:	MC37883-2	Date Sampled:	04/08/15
Matrix:	AQ - Ground Water	Date Received:	04/09/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.4	0.29	ug/l	
131-11-3	Dimethyl phthalate	ND	5.4	0.26	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.35	ug/l	
118-74-1	Hexachlorobenzene	ND	5.4	0.27	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.4	ug/l	
67-72-1	Hexachloroethane	ND	5.4	0.31	ug/l	
78-59-1	Isophorone	ND	5.4	0.51	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.39	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.44	ug/l	
100-01-6	4-Nitroaniline	ND	11	0.56	ug/l	
98-95-3	Nitrobenzene	ND	5.4	0.53	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.4	0.27	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.4	0.28	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.4	0.27	ug/l	
110-86-1	Pyridine	ND	11	0.39	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	53%		10-79%
4165-62-2	Phenol-d5	38%		10-72%
118-79-6	2,4,6-Tribromophenol	103%		35-138%
4165-60-0	Nitrobenzene-d5	89%		30-116%
321-60-8	2-Fluorobiphenyl	78%		35-107%
1718-51-0	Terphenyl-d14	104%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW11-ROX-040815		
Lab Sample ID:	MC37883-2	Date Sampled:	04/08/15
Matrix:	AQ - Ground Water	Date Received:	04/09/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95241.D	1	04/20/15	MR	04/10/15	OP42631	MSI3562
Run #2							

	Initial Volume	Final Volume
Run #1	920 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.11	0.0082	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.0091	ug/l	
120-12-7	Anthracene	ND	0.11	0.011	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.054	0.026	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.054	0.021	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.014	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.011	ug/l	
218-01-9	Chrysene	ND	0.11	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.016	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.0080	ug/l	
86-73-7	Fluorene	ND	0.11	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.022	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	0.013	ug/l	
91-57-6	2-Methylnaphthalene	0.022	2.2	0.012	ug/l	JB J
85-01-8	Phenanthrene	ND	0.054	0.012	ug/l	
129-00-0	Pyrene	ND	0.11	0.0092	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	86%		26-121%
321-60-8	2-Fluorobiphenyl	73%		28-107%
1718-51-0	Terphenyl-d14	111%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW11-ROX-040815		
Lab Sample ID:	MC37883-2	Date Sampled:	04/08/15
Matrix:	AQ - Ground Water	Date Received:	04/09/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62806.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	36.3 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0059	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0059	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	105%		60-140%
460-00-4	Bromofluorobenzene (S)	109%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW10-ROX-040815-EB		
Lab Sample ID:	MC37883-3	Date Sampled:	04/08/15
Matrix:	AQ - Equipment Blank	Date Received:	04/09/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38192.D	1	04/17/15	KD	n/a	n/a	MSV1376
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	4.7	10	2.0	ug/l	J
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW10-ROX-040815-EB		
Lab Sample ID:	MC37883-3	Date Sampled:	04/08/15
Matrix:	AQ - Equipment Blank	Date Received:	04/09/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW10-ROX-040815-EB		
Lab Sample ID:	MC37883-3	Date Sampled:	04/08/15
Matrix:	AQ - Equipment Blank	Date Received:	04/09/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	118%		72-133%
2037-26-5	Toluene-D8	105%		85-114%
460-00-4	4-Bromofluorobenzene	103%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW10-ROX-040815-EB		
Lab Sample ID:	MC37883-3	Date Sampled:	04/08/15
Matrix:	AQ - Equipment Blank	Date Received:	04/09/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21575.D	1	04/22/15	KD	04/10/15	OP42630	MSW923
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	2.7	ug/l	
95-57-8	2-Chlorophenol	ND	5.3	0.31	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.54	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.50	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	0.36	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	0.63	ug/l	
95-48-7	2-Methylphenol	ND	11	0.32	ug/l	
	3&4-Methylphenol	ND	11	0.47	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.49	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	11	0.37	ug/l	
108-95-2	Phenol	ND	5.3	0.34	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.48	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.48	ug/l	
62-53-3	Aniline	ND	11	0.49	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.27	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.26	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.34	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	0.36	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.38	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	0.53	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.44	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.45	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	0.27	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	0.31	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.39	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.40	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.56	ug/l	
132-64-9	Dibenzofuran	ND	2.1	0.26	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.3	0.29	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	0.31	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW10-ROX-040815-EB		
Lab Sample ID:	MC37883-3	Date Sampled:	04/08/15
Matrix:	AQ - Equipment Blank	Date Received:	04/09/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.3	0.29	ug/l	
131-11-3	Dimethyl phthalate	ND	5.3	0.26	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.34	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.26	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.3	0.30	ug/l	
78-59-1	Isophorone	ND	5.3	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.38	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.43	ug/l	
100-01-6	4-Nitroaniline	ND	11	0.55	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.51	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	0.27	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	0.27	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.27	ug/l	
110-86-1	Pyridine	ND	11	0.38	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	35%		10-79%
4165-62-2	Phenol-d5	25%		10-72%
118-79-6	2,4,6-Tribromophenol	80%		35-138%
4165-60-0	Nitrobenzene-d5	62%		30-116%
321-60-8	2-Fluorobiphenyl	57%		35-107%
1718-51-0	Terphenyl-d14	92%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW10-ROX-040815-EB		
Lab Sample ID:	MC37883-3	Date Sampled:	04/08/15
Matrix:	AQ - Equipment Blank	Date Received:	04/09/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95242.D	1	04/20/15	MR	04/10/15	OP42631	MSI3562
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.11	0.0080	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.0089	ug/l	
120-12-7	Anthracene	ND	0.11	0.010	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.053	0.025	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.053	0.020	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.011	ug/l	
218-01-9	Chrysene	ND	0.11	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.016	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.0079	ug/l	
86-73-7	Fluorene	ND	0.11	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.022	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.1	0.013	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.1	0.012	ug/l	
85-01-8	Phenanthrene	ND	0.053	0.011	ug/l	
129-00-0	Pyrene	ND	0.11	0.0090	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	61%		26-121%
321-60-8	2-Fluorobiphenyl	54%		28-107%
1718-51-0	Terphenyl-d14	103%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW10-ROX-040815-EB		
Lab Sample ID:	MC37883-3	Date Sampled:	04/08/15
Matrix:	AQ - Equipment Blank	Date Received:	04/09/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62807.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	36.5 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0059	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0058	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	99%		60-140%
460-00-4	Bromofluorobenzene (S)	105%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW10-ROX-040815		
Lab Sample ID:	MC37883-4	Date Sampled:	04/08/15
Matrix:	AQ - Ground Water	Date Received:	04/09/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38256.D	1	04/21/15	KD	n/a	n/a	MSV1378
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW10-ROX-040815		
Lab Sample ID:	MC37883-4	Date Sampled:	04/08/15
Matrix:	AQ - Ground Water	Date Received:	04/09/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW10-ROX-040815		
Lab Sample ID:	MC37883-4	Date Sampled:	04/08/15
Matrix:	AQ - Ground Water	Date Received:	04/09/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		72-133%
2037-26-5	Toluene-D8	105%		85-114%
460-00-4	4-Bromofluorobenzene	101%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW10-ROX-040815		
Lab Sample ID:	MC37883-4	Date Sampled:	04/08/15
Matrix:	AQ - Ground Water	Date Received:	04/09/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21576.D	1	04/22/15	KD	04/10/15	OP42630	MSW923
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.1	0.30	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.52	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.48	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.34	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.60	ug/l	
95-48-7	2-Methylphenol	ND	10	0.31	ug/l	
	3&4-Methylphenol	ND	10	0.45	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.47	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.35	ug/l	
108-95-2	Phenol	ND	5.1	0.33	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.46	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.46	ug/l	
62-53-3	Aniline	ND	10	0.47	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.1	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.1	0.25	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.33	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.1	0.35	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.1	0.50	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.1	0.43	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.1	0.43	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.1	0.26	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.1	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.38	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.38	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.1	0.54	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.1	0.28	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.1	0.29	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW10-ROX-040815		
Lab Sample ID:	MC37883-4	Date Sampled:	04/08/15
Matrix:	AQ - Ground Water	Date Received:	04/09/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.1	0.27	ug/l	
131-11-3	Dimethyl phthalate	ND	5.1	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.32	ug/l	
118-74-1	Hexachlorobenzene	ND	5.1	0.25	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.1	0.29	ug/l	
78-59-1	Isophorone	ND	5.1	0.48	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.36	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.41	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.52	ug/l	
98-95-3	Nitrobenzene	ND	5.1	0.49	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.1	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.1	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	0.26	ug/l	
110-86-1	Pyridine	ND	10	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	42%		10-79%
4165-62-2	Phenol-d5	30%		10-72%
118-79-6	2,4,6-Tribromophenol	88%		35-138%
4165-60-0	Nitrobenzene-d5	70%		30-116%
321-60-8	2-Fluorobiphenyl	64%		35-107%
1718-51-0	Terphenyl-d14	91%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW10-ROX-040815		
Lab Sample ID:	MC37883-4	Date Sampled:	04/08/15
Matrix:	AQ - Ground Water	Date Received:	04/09/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95246.D	1	04/21/15	MR	04/10/15	OP42631	MSI3563
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.0077	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.0086	ug/l	
120-12-7	Anthracene	ND	0.10	0.010	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.051	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.051	0.019	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.013	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	0.016	0.10	0.0076	ug/l	J
86-73-7	Fluorene	ND	0.10	0.015	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.021	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	0.013	ug/l	
91-57-6	2-Methylnaphthalene	0.020	2.0	0.011	ug/l	JB J
85-01-8	Phenanthrene	0.019	0.051	0.011	ug/l	J
129-00-0	Pyrene	ND	0.10	0.0087	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	71%		26-121%
321-60-8	2-Fluorobiphenyl	60%		28-107%
1718-51-0	Terphenyl-d14	97%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW10-ROX-040815		
Lab Sample ID:	MC37883-4	Date Sampled:	04/08/15
Matrix:	AQ - Ground Water	Date Received:	04/09/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62808.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	36.2 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0059	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0059	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	104%		60-140%
460-00-4	Bromofluorobenzene (S)	106%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-040815-HCL		
Lab Sample ID:	MC37883-5	Date Sampled:	04/08/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/09/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38193.D	1	04/17/15	KD	n/a	n/a	MSV1376
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-040815-HCL		
Lab Sample ID:	MC37883-5	Date Sampled:	04/08/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/09/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-040815-HCL		
Lab Sample ID:	MC37883-5	Date Sampled:	04/08/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/09/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	118%		72-133%
2037-26-5	Toluene-D8	105%		85-114%
460-00-4	4-Bromofluorobenzene	100%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-040815-ST		
Lab Sample ID:	MC37883-6	Date Sampled:	04/08/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/09/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62809.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	36.4 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0059	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0059	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	104%		60-140%
460-00-4	Bromofluorobenzene (S)	110%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

LAB (LOCA

Shell Oil ...ducts Chain Of Custody Record

ECOM

Please Check Appropriate Box:

Print Bill To Contact Name: Bob Bilman

INCIDENT # (ENV SERVICES): 0 7 2 1 8 6 4 0

DATE: 4-8-15

PAGE: 1 of 1

PO #

SAP #: 3 4 0 0 0 1

Lab Vendor #

URS CORPORATION

1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300; ST. LOUIS, MO 63110

Elizabeth Kunkel, Bob Bilman, Lindsay Rathnow

314-429-0100 | 314-429-0462

Roxana Quarterly GW / 21698720.03062

Dchase / BTesfu

LAB USE ONLY: MC37883

REQUESTED ANALYSIS

FIELD NOTES:

TEMPERATURE ON RECEIPT C°

SPECIAL INSTRUCTIONS OR NOTES:
* Please include "J" values on Reports.
* Please provide sample receipt upon login.

Lab Use Only	Field Sample Identification	Sampling Date	Sampling Time	Matrix	Preservative HCL	Preservative HNO3	Preservative NONE	Preservative OTHER	No. of Cont.	VOC 8260C SL+TICS	VOC 8011 SL	SVOC 8270D SL+TICS	PAH 8270LL	Container PID Readings or Laboratory Notes
-1	MW26-ROX-040815	4.8.15	1130	Water	2		2	2	6	X	X	X	X	0.0
-1S	MW26-ROX-040815-MS		1130		2		2	2	6	X	X	X	X	
-1SD	MW26-ROX-040815-MSD		1130		2		2	2	6	X	X	X	X	
-2	MW11-ROX-040815		1445		2		2	2	6	X	X	X	X	
-3	MW10-ROX-040815-EB		1515		2		2	2	6	X	X	X	X	
-4	MW10-ROX-040815		1550		2		2	2	6	X	X	X	X	
-5	TB-ROX-040815-HCL		0000		2				2	X				
-6	TB-ROX-040815-ST		0000					2	2		X			
														16BB, 3F3,

Relinquished by (Signature)	Received by (Signature)	Date	Time
[signature]	#8066 2852 5029 FED EX	4-8-15	1730
FED EX	[signature]	4/9/15	10:20

custody seals → ok.

ROX1: MW-26 + QA/QC + MW-23
SVOC only, VOAs + SVOC

ROX2: MW-11 + MW-10 + QA/QC + all other VOAs

Rec. 1.2, 1.7

MC37883: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC37883 **Client:** URS **Project:** 900 SOUTH CENTRAL AVE

Date / Time Received: 4/9/2015 10:20:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (1.2/1.2); #2: (1.7/1.7);

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	[✓] [ ]	3. COC Present:	[✓] [ ]
2. Custody Seals Intact:	[✓] [ ]	4. Smpl Dates/Time OK	[✓] [ ]

Cooler Temperature	Y or N
1. Temp criteria achieved:	[✓] [ ]
2. Thermometer ID:	G1;
3. Cooler media:	Ice (Bag)
4. No. Coolers:	2

Quality Control Preservation	Y or N	N/A
1. Trip Blank present / cooler:	[✓] [ ]	[ ]
2. Trip Blank listed on COC:	[✓] [ ]	[ ]
3. Samples preserved properly:	[✓] [ ]	
4. VOCs headspace free:	[✓] [ ]	[ ]

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	[✓] [ ]
2. Container labeling complete:	[✓] [ ]
3. Sample container label / COC agree:	[✓] [ ]

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	[✓] [ ]
2. All containers accounted for:	[✓] [ ]
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear:	[✓] [ ]	
2. Bottles received for unspecified tests	[ ] [✓]	
3. Sufficient volume recvd for analysis:	[✓] [ ]	
4. Compositing instructions clear:	[ ] [ ]	[✓]
5. Filtering instructions clear:	[ ] [ ]	[✓]

Comments

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC37883

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC37883-1 Collected: 08-APR-15 11:30 By: DCBT Received: 09-APR-15 By: MW26-ROX-040815						
MC37883-1	SW846 8011	17-APR-15 17:53	NK	16-APR-15	FT	V8011SL
MC37883-1	SW846 8260C	17-APR-15 19:46	KD			V8260SL+
MC37883-1	SW846 8270D BY SIM	20-APR-15 22:30	MR	10-APR-15	FC	B8270SIMSL
MC37883-1	SW846 8270D	21-APR-15 19:06	KD	10-APR-15	FC	AB8270SL+
MC37883-2 Collected: 08-APR-15 14:45 By: DCBT Received: 09-APR-15 By: MW11-ROX-040815						
MC37883-2	SW846 8011	17-APR-15 18:23	NK	16-APR-15	FT	V8011SL
MC37883-2	SW846 8270D BY SIM	20-APR-15 22:54	MR	10-APR-15	FC	B8270SIMSL
MC37883-2	SW846 8260C	21-APR-15 19:05	KD			V8260SL+
MC37883-2	SW846 8270D	21-APR-15 19:32	KD	10-APR-15	FC	AB8270SL+
MC37883-3 Collected: 08-APR-15 15:15 By: DCBT Received: 09-APR-15 By: MW10-ROX-040815-EB						
MC37883-3	SW846 8260C	17-APR-15 16:28	KD			V8260SL+
MC37883-3	SW846 8011	17-APR-15 18:52	NK	16-APR-15	FT	V8011SL
MC37883-3	SW846 8270D BY SIM	20-APR-15 23:19	MR	10-APR-15	FC	B8270SIMSL
MC37883-3	SW846 8270D	22-APR-15 12:33	KD	10-APR-15	FC	AB8270SL+
MC37883-4 Collected: 08-APR-15 15:50 By: DCBT Received: 09-APR-15 By: MW10-ROX-040815						
MC37883-4	SW846 8011	17-APR-15 19:22	NK	16-APR-15	FT	V8011SL
MC37883-4	SW846 8270D BY SIM	21-APR-15 08:53	MR	10-APR-15	FC	B8270SIMSL
MC37883-4	SW846 8260C	21-APR-15 18:36	KD			V8260SL+
MC37883-4	SW846 8270D	22-APR-15 12:58	KD	10-APR-15	FC	AB8270SL+
MC37883-5 Collected: 08-APR-15 00:00 By: DCBT Received: 09-APR-15 By: TB-ROX-040815-HCL						
MC37883-5	SW846 8260C	17-APR-15 16:56	KD			V8260SL+
MC37883-6 Collected: 08-APR-15 00:00 By: DCBT Received: 09-APR-15 By: TB-ROX-040815-ST						

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC37883

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC37883-6	SW846 8011	17-APR-15 19:52	NK	16-APR-15	FT	V8011SL

Accutest Internal Chain of Custody

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Received: 04/09/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC37883-1.1	Walk In Ref #22	Alireza Zeighami	04/10/15 07:20	Retrieve from Storage
MC37883-1.1	Alireza Zeighami		04/15/15 07:13	Depleted
MC37883-1.5	Walk In Ref #22	Alireza Zeighami	04/10/15 07:20	Retrieve from Storage
MC37883-1.5	Alireza Zeighami		04/15/15 07:13	Depleted
MC37883-1.6	Walk In Ref #22	Alireza Zeighami	04/10/15 07:20	Retrieve from Storage
MC37883-1.6	Alireza Zeighami		04/15/15 07:13	Depleted
MC37883-1.8	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC37883-1.8	Nicole Estey		04/16/15 23:05	Depleted
MC37883-1.10	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC37883-1.10	Nicole Estey		04/16/15 23:05	Depleted
MC37883-1.11	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC37883-1.11	Nicole Estey		04/16/15 23:05	Depleted
MC37883-1.13	VOC Ref #3	Krysten Dufort	04/17/15 14:46	Retrieve from Storage
MC37883-1.13	Krysten Dufort	GCMSV	04/17/15 14:46	Load on Instrument
MC37883-1.13	GCMSV	Krysten Dufort	04/20/15 14:38	Unload from Instrument
MC37883-1.13	Krysten Dufort	VOC Ref #3	04/20/15 14:38	Return to Storage
MC37883-1.16	VOC Ref #3	Krysten Dufort	04/17/15 14:46	Retrieve from Storage
MC37883-1.16	Krysten Dufort	GCMSV	04/17/15 14:46	Load on Instrument
MC37883-1.16	GCMSV	Krysten Dufort	04/20/15 14:38	Unload from Instrument
MC37883-1.16	Krysten Dufort	VOC Ref #3	04/20/15 14:38	Return to Storage
MC37883-1.17	VOC Ref #3	Krysten Dufort	04/17/15 14:46	Retrieve from Storage
MC37883-1.17	Krysten Dufort	GCMSV	04/17/15 14:46	Load on Instrument
MC37883-1.17	GCMSV	Krysten Dufort	04/20/15 14:38	Unload from Instrument
MC37883-1.17	Krysten Dufort	VOC Ref #3	04/20/15 14:38	Return to Storage
MC37883-1.18	VOC Ref #3	Krysten Dufort	04/17/15 14:46	Retrieve from Storage
MC37883-1.18	Krysten Dufort	GCMSV	04/17/15 14:46	Load on Instrument
MC37883-1.18	GCMSV	Krysten Dufort	04/20/15 14:38	Unload from Instrument
MC37883-1.18	Krysten Dufort	VOC Ref #3	04/20/15 14:38	Return to Storage
MC37883-2.1	Walk In Ref #22	Alireza Zeighami	04/10/15 07:20	Retrieve from Storage
MC37883-2.1	Alireza Zeighami		04/15/15 07:13	Depleted
MC37883-2.3	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC37883-2.3	Nicole Estey		04/16/15 23:05	Depleted

Accutest Internal Chain of Custody

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Received: 04/09/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC37883-2.5	VOC Ref #3	Krysten Dufort	04/17/15 14:46	Retrieve from Storage
MC37883-2.5	Krysten Dufort	GCMSV	04/17/15 14:46	Load on Instrument
MC37883-2.5	GCMSV	Krysten Dufort	04/20/15 14:38	Unload from Instrument
MC37883-2.5	Krysten Dufort	VOC Ref #3	04/20/15 14:38	Return to Storage
MC37883-2.6	VOC Ref #3	Todd Bahosh	04/21/15 11:19	Retrieve from Storage
MC37883-2.6	Todd Bahosh	GCMSV	04/21/15 11:20	Load on Instrument
MC37883-2.6	GCMSV	Todd Bahosh	04/22/15 08:43	Unload from Instrument
MC37883-2.6	Todd Bahosh	VOC Ref #3	04/22/15 08:43	Return to Storage
MC37883-3.2	Walk In Ref #22	Alireza Zeighami	04/10/15 07:20	Retrieve from Storage
MC37883-3.2	Alireza Zeighami		04/15/15 07:13	Depleted
MC37883-3.4	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC37883-3.4	Nicole Estey		04/16/15 23:05	Depleted
MC37883-3.5	VOC Ref #3	Krysten Dufort	04/17/15 14:46	Retrieve from Storage
MC37883-3.5	Krysten Dufort	GCMSV	04/17/15 14:46	Load on Instrument
MC37883-3.5	GCMSV	Krysten Dufort	04/20/15 14:38	Unload from Instrument
MC37883-3.5	Krysten Dufort	VOC Ref #3	04/20/15 14:38	Return to Storage
MC37883-4.1	Walk In Ref #22	Alireza Zeighami	04/10/15 07:20	Retrieve from Storage
MC37883-4.1	Alireza Zeighami		04/15/15 07:13	Depleted
MC37883-4.3	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC37883-4.3	Nicole Estey		04/16/15 23:05	Depleted
MC37883-4.5	VOC Ref #3	Todd Bahosh	04/21/15 11:19	Retrieve from Storage
MC37883-4.5	Todd Bahosh	GCMSV	04/21/15 11:20	Load on Instrument
MC37883-4.5	GCMSV	Todd Bahosh	04/22/15 08:43	Unload from Instrument
MC37883-4.5	Todd Bahosh	VOC Ref #3	04/22/15 08:43	Return to Storage
MC37883-4.6	VOC Ref #3	Krysten Dufort	04/17/15 14:46	Retrieve from Storage
MC37883-4.6	Krysten Dufort	GCMSV	04/17/15 14:46	Load on Instrument
MC37883-4.6	GCMSV	Krysten Dufort	04/20/15 14:38	Unload from Instrument
MC37883-4.6	Krysten Dufort	VOC Ref #3	04/20/15 14:38	Return to Storage
MC37883-5.2	VOC Ref #3	Krysten Dufort	04/17/15 14:46	Retrieve from Storage
MC37883-5.2	Krysten Dufort	GCMSV	04/17/15 14:46	Load on Instrument
MC37883-5.2	GCMSV	Krysten Dufort	04/20/15 14:38	Unload from Instrument
MC37883-5.2	Krysten Dufort	VOC Ref #3	04/20/15 14:38	Return to Storage
MC37883-6.2	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC37883-6.2	Nicole Estey		04/16/15 23:05	Depleted

5.3 G

New England ACCUTEST LABORATORIES

GC/MS Volatiles

6

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1376-MB	V38187.D	1	04/17/15	KD	n/a	n/a	MSV1376

The QC reported here applies to the following samples: Method: SW846 8260C

MC37883-1, MC37883-3, MC37883-5

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	

6.1.1

Method Blank Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1376-MB	V38187.D	1	04/17/15	KD	n/a	n/a	MSV1376

The QC reported here applies to the following samples: Method: SW846 8260C

MC37883-1, MC37883-3, MC37883-5

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

6.1.1

Method Blank Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1376-MB	V38187.D	1	04/17/15	KD	n/a	n/a	MSV1376

The QC reported here applies to the following samples: Method: SW846 8260C

MC37883-1, MC37883-3, MC37883-5

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	112%	72-133%
2037-26-5	Toluene-D8	104%	85-114%
460-00-4	4-Bromofluorobenzene	103%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

6.1.1

Method Blank Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1378-MB	V38241.D	1	04/21/15	KD	n/a	n/a	MSV1378

The QC reported here applies to the following samples: Method: SW846 8260C

MC37883-2, MC37883-4

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	

Method Blank Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1378-MB	V38241.D	1	04/21/15	KD	n/a	n/a	MSV1378

The QC reported here applies to the following samples: Method: SW846 8260C

MC37883-2, MC37883-4

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

Method Blank Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1378-MB	V38241.D	1	04/21/15	KD	n/a	n/a	MSV1378

The QC reported here applies to the following samples: Method: SW846 8260C

MC37883-2, MC37883-4

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	122%	72-133%
2037-26-5	Toluene-D8	106%	85-114%
460-00-4	4-Bromofluorobenzene	97%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1376-BS	V38184.D	1	04/17/15	KD	n/a	n/a	MSV1376

The QC reported here applies to the following samples: Method: SW846 8260C

MC37883-1, MC37883-3, MC37883-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	61.7	123	14-172
107-02-8	Acrolein	250	290	116	10-168
107-13-1	Acrylonitrile	50	48.4	97	41-158
71-43-2	Benzene	50	45.8	92	68-127
108-86-1	Bromobenzene	50	46.2	92	74-124
74-97-5	Bromochloromethane	50	45.7	91	68-135
75-27-4	Bromodichloromethane	50	53.1	106	72-144
75-25-2	Bromoform	50	44.0	88	59-147
74-83-9	Bromomethane	50	53.3	107	34-175
78-93-3	2-Butanone (MEK)	50	48.9	98	43-147
104-51-8	n-Butylbenzene	50	48.0	96	77-136
135-98-8	sec-Butylbenzene	50	47.7	95	75-134
98-06-6	tert-Butylbenzene	50	45.2	90	74-132
75-15-0	Carbon disulfide	50	48.7	97	34-171
56-23-5	Carbon tetrachloride	50	51.1	102	55-153
108-90-7	Chlorobenzene	50	45.9	92	71-123
75-00-3	Chloroethane	50	50.6	101	58-175
110-75-8	2-Chloroethyl vinyl ether	50	42.9	86	44-169
67-66-3	Chloroform	50	50.3	101	67-136
74-87-3	Chloromethane	50	46.9	94	25-182
95-49-8	o-Chlorotoluene	50	47.7	95	72-130
106-43-4	p-Chlorotoluene	50	47.9	96	73-127
124-48-1	Dibromochloromethane	50	44.3	89	73-139
95-50-1	1,2-Dichlorobenzene	50	44.6	89	77-125
541-73-1	1,3-Dichlorobenzene	50	44.9	90	77-124
106-46-7	1,4-Dichlorobenzene	50	44.0	88	73-128
75-71-8	Dichlorodifluoromethane	50	40.3	81	23-157
75-34-3	1,1-Dichloroethane	50	50.6	101	63-145
107-06-2	1,2-Dichloroethane	50	49.6	99	58-145
75-35-4	1,1-Dichloroethene	50	49.3	99	56-158
156-59-2	cis-1,2-Dichloroethene	50	47.2	94	67-133
156-60-5	trans-1,2-Dichloroethene	50	48.1	96	66-136
78-87-5	1,2-Dichloropropane	50	50.8	102	75-133
142-28-9	1,3-Dichloropropane	50	44.6	89	70-127
594-20-7	2,2-Dichloropropane	50	50.2	100	52-163
563-58-6	1,1-Dichloropropene	50	48.3	97	77-140

* = Outside of Control Limits.

6.2.1

Blank Spike Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1376-BS	V38184.D	1	04/17/15	KD	n/a	n/a	MSV1376

The QC reported here applies to the following samples: Method: SW846 8260C

MC37883-1, MC37883-3, MC37883-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-01-5	cis-1,3-Dichloropropene	50	46.0	92	74-141
10061-02-6	trans-1,3-Dichloropropene	50	47.5	95	77-143
123-91-1	1,4-Dioxane	250	194	78	30-182
97-63-2	Ethyl methacrylate	50	47.4	95	64-131
100-41-4	Ethylbenzene	50	48.5	97	71-129
87-68-3	Hexachlorobutadiene	50	41.9	84	64-146
591-78-6	2-Hexanone	50	46.1	92	22-163
98-82-8	Isopropylbenzene	50	48.1	96	72-133
99-87-6	p-Isopropyltoluene	50	47.9	96	77-134
1634-04-4	Methyl Tert Butyl Ether	50	53.0	106	46-151
108-10-1	4-Methyl-2-pentanone (MIBK)	50	46.2	92	47-145
74-95-3	Methylene bromide	50	48.9	98	70-132
75-09-2	Methylene chloride	50	47.7	95	55-146
91-20-3	Naphthalene	50	34.9	70	39-176
103-65-1	n-Propylbenzene	50	50.1	100	74-134
100-42-5	Styrene	50	47.5	95	71-134
630-20-6	1,1,1,2-Tetrachloroethane	50	42.9	86	70-137
79-34-5	1,1,2,2-Tetrachloroethane	50	46.5	93	58-145
127-18-4	Tetrachloroethene	50	43.9	88	63-137
108-88-3	Toluene	50	48.9	98	75-126
87-61-6	1,2,3-Trichlorobenzene	50	37.7	75	27-181
120-82-1	1,2,4-Trichlorobenzene	50	39.2	78	40-176
71-55-6	1,1,1-Trichloroethane	50	48.5	97	68-144
79-00-5	1,1,2-Trichloroethane	50	50.8	102	72-133
79-01-6	Trichloroethene	50	47.1	94	73-126
75-69-4	Trichlorofluoromethane	50	48.8	98	43-152
96-18-4	1,2,3-Trichloropropane	50	36.8	74	58-141
95-63-6	1,2,4-Trimethylbenzene	50	48.9	98	76-129
108-67-8	1,3,5-Trimethylbenzene	50	48.2	96	71-127
108-05-4	Vinyl Acetate	50	57.9	116	10-170
75-01-4	Vinyl chloride	50	44.9	90	36-167
	m,p-Xylene	100	94.1	94	68-130
95-47-6	o-Xylene	50	46.7	93	69-126
1330-20-7	Xylene (total)	150	141	94	67-129

* = Outside of Control Limits.

6.2.1

Blank Spike Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1376-BS	V38184.D	1	04/17/15	KD	n/a	n/a	MSV1376

The QC reported here applies to the following samples: Method: SW846 8260C

MC37883-1, MC37883-3, MC37883-5

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	105%	72-133%
2037-26-5	Toluene-D8	106%	85-114%
460-00-4	4-Bromofluorobenzene	104%	70-134%

6.2.1

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1378-BS	V38238.D	1	04/21/15	KD	n/a	n/a	MSV1378
MSV1378-BSD	V38239.D	1	04/21/15	KD	n/a	n/a	MSV1378

The QC reported here applies to the following samples: Method: SW846 8260C

MC37883-2, MC37883-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	63.7	127	67.3	135	5	14-172/25
107-02-8	Acrolein	250	308	123	312	125	1	10-168/25
107-13-1	Acrylonitrile	50	49.5	99	51.3	103	4	41-158/25
71-43-2	Benzene	50	47.9	96	48.2	96	1	68-127/25
108-86-1	Bromobenzene	50	42.5	85	43.0	86	1	74-124/25
74-97-5	Bromochloromethane	50	50.2	100	51.0	102	2	68-135/25
75-27-4	Bromodichloromethane	50	56.3	113	56.7	113	1	72-144/25
75-25-2	Bromoform	50	44.3	89	44.6	89	1	59-147/25
74-83-9	Bromomethane	50	56.2	112	59.5	119	6	34-175/25
78-93-3	2-Butanone (MEK)	50	49.5	99	51.5	103	4	43-147/25
104-51-8	n-Butylbenzene	50	43.9	88	44.5	89	1	77-136/25
135-98-8	sec-Butylbenzene	50	43.1	86	44.1	88	2	75-134/25
98-06-6	tert-Butylbenzene	50	40.8	82	41.2	82	1	74-132/25
75-15-0	Carbon disulfide	50	49.4	99	51.9	104	5	34-171/25
56-23-5	Carbon tetrachloride	50	54.9	110	55.9	112	2	55-153/25
108-90-7	Chlorobenzene	50	45.1	90	45.5	91	1	71-123/25
75-00-3	Chloroethane	50	54.5	109	59.7	119	9	58-175/25
110-75-8	2-Chloroethyl vinyl ether	50	45.6	91	45.8	92	0	44-169/25
67-66-3	Chloroform	50	54.3	109	54.8	110	1	67-136/25
74-87-3	Chloromethane	50	48.9	98	50.9	102	4	25-182/25
95-49-8	o-Chlorotoluene	50	42.4	85	43.2	86	2	72-130/25
106-43-4	p-Chlorotoluene	50	43.2	86	43.7	87	1	73-127/25
124-48-1	Dibromochloromethane	50	43.5	87	44.0	88	1	73-139/25
95-50-1	1,2-Dichlorobenzene	50	41.1	82	41.9	84	2	77-125/25
541-73-1	1,3-Dichlorobenzene	50	41.9	84	42.4	85	1	77-124/25
106-46-7	1,4-Dichlorobenzene	50	41.3	83	41.5	83	0	73-128/25
75-71-8	Dichlorodifluoromethane	50	36.7	73	39.2	78	7	23-157/25
75-34-3	1,1-Dichloroethane	50	53.4	107	54.8	110	3	63-145/25
107-06-2	1,2-Dichloroethane	50	52.0	104	52.2	104	0	58-145/25
75-35-4	1,1-Dichloroethene	50	51.2	102	53.7	107	5	56-158/25
156-59-2	cis-1,2-Dichloroethene	50	50.9	102	51.6	103	1	67-133/25
156-60-5	trans-1,2-Dichloroethene	50	51.3	103	53.3	107	4	66-136/25
78-87-5	1,2-Dichloropropane	50	53.0	106	54.0	108	2	75-133/25
142-28-9	1,3-Dichloropropane	50	42.4	85	42.7	85	1	70-127/25
594-20-7	2,2-Dichloropropane	50	55.4	111	56.5	113	2	52-163/25
563-58-6	1,1-Dichloropropene	50	51.0	102	50.8	102	0	77-140/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1378-BS	V38238.D	1	04/21/15	KD	n/a	n/a	MSV1378
MSV1378-BSD	V38239.D	1	04/21/15	KD	n/a	n/a	MSV1378

6.3.1

The QC reported here applies to the following samples: Method: SW846 8260C

MC37883-2, MC37883-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	50	49.0	98	49.9	100	2	74-141/25
10061-02-6	trans-1,3-Dichloropropene	50	51.1	102	50.9	102	0	77-143/25
123-91-1	1,4-Dioxane	250	218	87	192	77	13	30-182/25
97-63-2	Ethyl methacrylate	50	47.2	94	48.8	98	3	64-131/25
100-41-4	Ethylbenzene	50	47.1	94	47.5	95	1	71-129/25
87-68-3	Hexachlorobutadiene	50	39.7	79	40.2	80	1	64-146/25
591-78-6	2-Hexanone	50	42.1	84	42.0	84	0	22-163/25
98-82-8	Isopropylbenzene	50	42.9	86	44.1	88	3	72-133/25
99-87-6	p-Isopropyltoluene	50	43.5	87	44.5	89	2	77-134/25
1634-04-4	Methyl Tert Butyl Ether	50	55.1	110	58.1	116	5	46-151/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	45.3	91	47.0	94	4	47-145/25
74-95-3	Methylene bromide	50	51.7	103	52.6	105	2	70-132/25
75-09-2	Methylene chloride	50	51.2	102	53.0	106	3	55-146/25
91-20-3	Naphthalene	50	31.6	63	32.7	65	3	39-176/25
103-65-1	n-Propylbenzene	50	45.3	91	45.7	91	1	74-134/25
100-42-5	Styrene	50	46.5	93	46.7	93	0	71-134/25
630-20-6	1,1,1,2-Tetrachloroethane	50	42.8	86	43.2	86	1	70-137/25
79-34-5	1,1,2,2-Tetrachloroethane	50	42.1	84	43.1	86	2	58-145/25
127-18-4	Tetrachloroethene	50	44.1	88	44.9	90	2	63-137/25
108-88-3	Toluene	50	52.1	104	53.2	106	2	75-126/25
87-61-6	1,2,3-Trichlorobenzene	50	34.5	69	36.0	72	4	27-181/25
120-82-1	1,2,4-Trichlorobenzene	50	36.2	72	37.5	75	4	40-176/25
71-55-6	1,1,1-Trichloroethane	50	52.5	105	54.5	109	4	68-144/25
79-00-5	1,1,2-Trichloroethane	50	53.7	107	55.5	111	3	72-133/25
79-01-6	Trichloroethene	50	50.5	101	50.5	101	0	73-126/25
75-69-4	Trichlorofluoromethane	50	56.7	113	58.9	118	4	43-152/25
96-18-4	1,2,3-Trichloropropane	50	36.9	74	37.2	74	1	58-141/25
95-63-6	1,2,4-Trimethylbenzene	50	44.0	88	44.9	90	2	76-129/25
108-67-8	1,3,5-Trimethylbenzene	50	43.3	87	44.2	88	2	71-127/25
108-05-4	Vinyl Acetate	50	58.4	117	60.2	120	3	10-170/25
75-01-4	Vinyl chloride	50	48.5	97	51.3	103	6	36-167/25
	m,p-Xylene	100	92.4	92	93.9	94	2	68-130/25
95-47-6	o-Xylene	50	45.2	90	46.7	93	3	69-126/25
1330-20-7	Xylene (total)	150	138	92	141	94	2	67-129/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1378-BS	V38238.D	1	04/21/15	KD	n/a	n/a	MSV1378
MSV1378-BSD	V38239.D	1	04/21/15	KD	n/a	n/a	MSV1378

The QC reported here applies to the following samples: Method: SW846 8260C

MC37883-2, MC37883-4

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	109%	108%	72-133%
2037-26-5	Toluene-D8	108%	108%	85-114%
460-00-4	4-Bromofluorobenzene	100%	99%	70-134%

6.3.1

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC37883-1MS	V38208.D	1	04/18/15	KD	n/a	n/a	MSV1376
MC37883-1MSD	V38209.D	1	04/18/15	KD	n/a	n/a	MSV1376
MC37883-1	V38199.D	1	04/17/15	KD	n/a	n/a	MSV1376

The QC reported here applies to the following samples: Method: SW846 8260C

MC37883-1, MC37883-3, MC37883-5

6.4.1

CAS No.	Compound	MC37883-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		50	33.3	67	50	31.8	64	5	10-135/30
107-02-8	Acrolein	ND		250	281	112	250	268	107	5	10-175/30
107-13-1	Acrylonitrile	ND		50	50.2	100	50	48.4	97	4	37-163/30
71-43-2	Benzene	ND		50	45.5	91	50	47.4	95	4	61-138/30
108-86-1	Bromobenzene	ND		50	44.7	89	50	45.6	91	2	71-126/30
74-97-5	Bromochloromethane	ND		50	46.1	92	50	46.6	93	1	70-136/30
75-27-4	Bromodichloromethane	ND		50	55.2	110	50	56.0	112	1	73-146/30
75-25-2	Bromoform	ND		50	44.0	88	50	43.5	87	1	54-147/30
74-83-9	Bromomethane	ND		50	54.2	108	50	56.3	113	4	20-171/30
78-93-3	2-Butanone (MEK)	ND		50	37.1	74	50	34.7	69	7	33-127/30
104-51-8	n-Butylbenzene	ND		50	45.3	91	50	47.2	94	4	69-138/30
135-98-8	sec-Butylbenzene	ND		50	45.4	91	50	47.5	95	5	71-137/30
98-06-6	tert-Butylbenzene	ND		50	44.6	89	50	46.1	92	3	68-137/30
75-15-0	Carbon disulfide	ND		50	49.6	99	50	51.6	103	4	29-178/30
56-23-5	Carbon tetrachloride	ND		50	51.7	103	50	54.8	110	6	57-155/30
108-90-7	Chlorobenzene	ND		50	45.0	90	50	47.0	94	4	69-126/30
75-00-3	Chloroethane	ND		50	53.2	106	50	62.2	124	16	57-182/30
110-75-8	2-Chloroethyl vinyl ether	ND		50	ND	0* a	50	ND	0* a	nc	10-200/30
67-66-3	Chloroform	ND		50	52.0	104	50	52.3	105	1	66-142/30
74-87-3	Chloromethane	ND		50	51.7	103	50	49.7	99	4	18-182/30
95-49-8	o-Chlorotoluene	ND		50	46.5	93	50	48.3	97	4	60-145/30
106-43-4	p-Chlorotoluene	ND		50	47.0	94	50	48.5	97	3	64-138/30
124-48-1	Dibromochloromethane	ND		50	43.8	88	50	45.0	90	3	71-138/30
95-50-1	1,2-Dichlorobenzene	ND		50	43.6	87	50	44.1	88	1	75-125/30
541-73-1	1,3-Dichlorobenzene	ND		50	43.8	88	50	44.8	90	2	74-125/30
106-46-7	1,4-Dichlorobenzene	ND		50	43.2	86	50	44.0	88	2	72-128/30
75-71-8	Dichlorodifluoromethane	ND		50	37.6	75	50	42.3	85	12	23-159/30
75-34-3	1,1-Dichloroethane	ND		50	51.8	104	50	52.9	106	2	63-150/30
107-06-2	1,2-Dichloroethane	ND		50	53.2	106	50	53.4	107	0	57-150/30
75-35-4	1,1-Dichloroethene	ND		50	48.4	97	50	50.7	101	5	53-165/30
156-59-2	cis-1,2-Dichloroethene	ND		50	47.0	94	50	47.9	96	2	66-138/30
156-60-5	trans-1,2-Dichloroethene	ND		50	48.8	98	50	50.1	100	3	65-141/30
78-87-5	1,2-Dichloropropane	ND		50	51.5	103	50	53.4	107	4	76-136/30
142-28-9	1,3-Dichloropropane	ND		50	44.5	89	50	45.5	91	2	71-127/30
594-20-7	2,2-Dichloropropane	ND		50	43.2	86	50	45.0	90	4	33-175/30
563-58-6	1,1-Dichloropropene	ND		50	48.2	96	50	49.7	99	3	76-145/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC37883-1MS	V38208.D	1	04/18/15	KD	n/a	n/a	MSV1376
MC37883-1MSD	V38209.D	1	04/18/15	KD	n/a	n/a	MSV1376
MC37883-1	V38199.D	1	04/17/15	KD	n/a	n/a	MSV1376

The QC reported here applies to the following samples: Method: SW846 8260C

MC37883-1, MC37883-3, MC37883-5

CAS No.	Compound	MC37883-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		50	42.8	86	50	44.5	89	4	75-137/30
10061-02-6	trans-1,3-Dichloropropene	ND		50	46.4	93	50	47.5	95	2	77-139/30
123-91-1	1,4-Dioxane	ND		250	110	44	250	122	49	10	29-167/30
97-63-2	Ethyl methacrylate	ND		50	46.0	92	50	46.9	94	2	60-135/30
100-41-4	Ethylbenzene	ND		50	46.7	93	50	49.9	100	7	61-137/30
87-68-3	Hexachlorobutadiene	ND		50	37.9	76	50	39.7	79	5	59-141/30
591-78-6	2-Hexanone	ND		50	31.9	64	50	32.0	64	0	12-141/30
98-82-8	Isopropylbenzene	ND		50	45.5	91	50	48.2	96	6	64-141/30
99-87-6	p-Isopropyltoluene	ND		50	45.3	91	50	47.4	95	5	73-135/30
1634-04-4	Methyl Tert Butyl Ether	ND		50	50.4	101	50	52.0	104	3	34-160/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	43.7	87	50	44.6	89	2	47-143/30
74-95-3	Methylene bromide	ND		50	51.1	102	50	51.4	103	1	73-132/30
75-09-2	Methylene chloride	ND		50	47.6	95	50	49.6	99	4	52-154/30
91-20-3	Naphthalene	ND		50	34.2	68	50	34.1	68	0	21-185/30
103-65-1	n-Propylbenzene	ND		50	48.1	96	50	49.9	100	4	66-141/30
100-42-5	Styrene	ND		50	46.0	92	50	48.3	97	5	60-142/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		50	42.2	84	50	44.2	88	5	69-138/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	46.8	94	50	46.9	94	0	58-147/30
127-18-4	Tetrachloroethene	ND		50	42.5	85	50	45.2	90	6	60-140/30
108-88-3	Toluene	ND		50	48.7	97	50	51.0	102	5	74-131/30
87-61-6	1,2,3-Trichlorobenzene	ND		50	36.7	73	50	36.9	74	1	12-184/30
120-82-1	1,2,4-Trichlorobenzene	ND		50	37.6	75	50	38.1	76	1	30-175/30
71-55-6	1,1,1-Trichloroethane	ND		50	48.8	98	50	51.3	103	5	67-151/30
79-00-5	1,1,2-Trichloroethane	ND		50	52.6	105	50	53.5	107	2	73-134/30
79-01-6	Trichloroethene	ND		50	47.0	94	50	48.6	97	3	68-133/30
75-69-4	Trichlorofluoromethane	ND		50	53.5	107	50	54.0	108	1	40-159/30
96-18-4	1,2,3-Trichloropropane	ND		50	36.0	72	50	37.1	74	3	54-141/30
95-63-6	1,2,4-Trimethylbenzene	ND		50	46.9	94	50	49.3	99	5	62-142/30
108-67-8	1,3,5-Trimethylbenzene	ND		50	46.3	93	50	48.3	97	4	62-133/30
108-05-4	Vinyl Acetate	ND		50	57.3	115	50	57.7	115	1	10-169/30
75-01-4	Vinyl chloride	ND		50	47.4	95	50	49.1	98	4	29-176/30
	m,p-Xylene	ND		100	91.1	91	100	96.0	96	5	58-139/30
95-47-6	o-Xylene	ND		50	45.0	90	50	47.7	95	6	61-135/30
1330-20-7	Xylene (total)	ND		150	136	91	150	144	96	6	60-136/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC37883-1MS	V38208.D	1	04/18/15	KD	n/a	n/a	MSV1376
MC37883-1MSD	V38209.D	1	04/18/15	KD	n/a	n/a	MSV1376
MC37883-1	V38199.D	1	04/17/15	KD	n/a	n/a	MSV1376

The QC reported here applies to the following samples: Method: SW846 8260C

MC37883-1, MC37883-3, MC37883-5

CAS No.	Surrogate Recoveries	MS	MSD	MC37883-1	Limits
1868-53-7	Dibromofluoromethane	110%	107%	115%	72-133%
2037-26-5	Toluene-D8	106%	108%	102%	85-114%
460-00-4	4-Bromofluorobenzene	104%	103%	105%	70-134%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

6.4.1

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D69816-1MS	V38247.D	5	04/21/15	KD	n/a	n/a	MSV1378
D69816-1MSD	V38248.D	5	04/21/15	KD	n/a	n/a	MSV1378
D69816-1	V38246.D	1	04/21/15	KD	n/a	n/a	MSV1378

The QC reported here applies to the following samples: Method: SW846 8260C

MC37883-2, MC37883-4

CAS No.	Compound	D69816-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	21.7		250	164	57	250	168	59	2	10-135/30
107-02-8	Acrolein	ND		1250	1330	106	1250	1350	108	1	10-175/30
107-13-1	Acrylonitrile	ND		250	224	90	250	224	90	0	37-163/30
71-43-2	Benzene	ND		250	218	87	250	225	90	3	61-138/30
108-86-1	Bromobenzene	ND		250	243	97	250	252	101	4	71-126/30
74-97-5	Bromochloromethane	ND		250	218	87	250	227	91	4	70-136/30
75-27-4	Bromodichloromethane	ND		250	247	99	250	258	103	4	73-146/30
75-25-2	Bromoform	ND		250	230	92	250	231	92	0	54-147/30
74-83-9	Bromomethane	ND		250	249	100	250	253	101	2	20-171/30
78-93-3	2-Butanone (MEK)	ND		250	178	71	250	186	74	4	33-127/30
104-51-8	n-Butylbenzene	ND		250	249	100	250	255	102	2	69-138/30
135-98-8	sec-Butylbenzene	ND		250	245	98	250	259	104	6	71-137/30
98-06-6	tert-Butylbenzene	ND		250	227	91	250	244	98	7	68-137/30
75-15-0	Carbon disulfide	ND		250	225	90	250	231	92	3	29-178/30
56-23-5	Carbon tetrachloride	ND		250	240	96	250	249	100	4	57-155/30
108-90-7	Chlorobenzene	ND		250	242	97	250	247	99	2	69-126/30
75-00-3	Chloroethane	ND		250	254	102	250	257	103	1	57-182/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	ND	0* [a]	250	ND	0* [a]	nc	10-200/30
67-66-3	Chloroform	0.84	J	250	230	92	250	239	95	4	66-142/30
74-87-3	Chloromethane	ND		250	211	84	250	210	84	0	18-182/30
95-49-8	o-Chlorotoluene	ND		250	242	97	250	253	101	4	60-145/30
106-43-4	p-Chlorotoluene	ND		250	242	97	250	254	102	5	64-138/30
124-48-1	Dibromochloromethane	ND		250	229	92	250	230	92	0	71-138/30
95-50-1	1,2-Dichlorobenzene	ND		250	234	94	250	242	97	3	75-125/30
541-73-1	1,3-Dichlorobenzene	ND		250	239	96	250	246	98	3	74-125/30
106-46-7	1,4-Dichlorobenzene	ND		250	233	93	250	243	97	4	72-128/30
75-71-8	Dichlorodifluoromethane	ND		250	162	65	250	154	62	5	23-159/30
75-34-3	1,1-Dichloroethane	ND		250	235	94	250	243	97	3	63-150/30
107-06-2	1,2-Dichloroethane	ND		250	229	92	250	237	95	3	57-150/30
75-35-4	1,1-Dichloroethene	ND		250	235	94	250	243	97	3	53-165/30
156-59-2	cis-1,2-Dichloroethene	ND		250	222	89	250	233	93	5	66-138/30
156-60-5	trans-1,2-Dichloroethene	ND		250	229	92	250	237	95	3	65-141/30
78-87-5	1,2-Dichloropropane	ND		250	242	97	250	250	100	3	76-136/30
142-28-9	1,3-Dichloropropane	ND		250	230	92	250	233	93	1	71-127/30
594-20-7	2,2-Dichloropropane	ND		250	239	96	250	246	98	3	33-175/30
563-58-6	1,1-Dichloropropene	ND		250	225	90	250	238	95	6	76-145/30

* = Outside of Control Limits.

5.4.2

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D69816-1MS	V38247.D	5	04/21/15	KD	n/a	n/a	MSV1378
D69816-1MSD	V38248.D	5	04/21/15	KD	n/a	n/a	MSV1378
D69816-1	V38246.D	1	04/21/15	KD	n/a	n/a	MSV1378

The QC reported here applies to the following samples: Method: SW846 8260C

MC37883-2, MC37883-4

CAS No.	Compound	D69816-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		250	216	86	250	225	90	4	75-137/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	223	89	250	235	94	5	77-139/30
123-91-1	1,4-Dioxane	ND		1250	1040	83	1250	1030	82	1	29-167/30
97-63-2	Ethyl methacrylate	ND		250	226	90	250	237	95	5	60-135/30
100-41-4	Ethylbenzene	ND		250	254	102	250	257	103	1	61-137/30
87-68-3	Hexachlorobutadiene	ND		250	218	87	250	232	93	6	59-141/30
591-78-6	2-Hexanone	ND		250	161	64	250	167	67	4	12-141/30
98-82-8	Isopropylbenzene	ND		250	248	99	250	262	105	5	64-141/30
99-87-6	p-Isopropyltoluene	ND		250	249	100	250	260	104	4	73-135/30
1634-04-4	Methyl Tert Butyl Ether	ND		250	250	100	250	258	103	3	34-160/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	212	85	250	220	88	4	47-143/30
74-95-3	Methylene bromide	ND		250	232	93	250	238	95	3	73-132/30
75-09-2	Methylene chloride	ND		250	229	92	250	233	93	2	52-154/30
91-20-3	Naphthalene	ND		250	180	72	250	193	77	7	21-185/30
103-65-1	n-Propylbenzene	ND		250	256	102	250	269	108	5	66-141/30
100-42-5	Styrene	ND		250	250	100	250	252	101	1	60-142/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	228	91	250	231	92	1	69-138/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	245	98	250	254	102	4	58-147/30
127-18-4	Tetrachloroethene	0.26	J	250	237	95	250	246	98	4	60-140/30
108-88-3	Toluene	0.66	J	250	238	95	250	245	98	3	74-131/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	194	78	250	211	84	8	12-184/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	208	83	250	220	88	6	30-175/30
71-55-6	1,1,1-Trichloroethane	ND		250	228	91	250	235	94	3	67-151/30
79-00-5	1,1,2-Trichloroethane	ND		250	246	98	250	256	102	4	73-134/30
79-01-6	Trichloroethene	ND		250	226	90	250	235	94	4	68-133/30
75-69-4	Trichlorofluoromethane	ND		250	236	94	250	241	96	2	40-159/30
96-18-4	1,2,3-Trichloropropane	ND		250	215	86	250	221	88	3	54-141/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	251	100	250	262	105	4	62-142/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	250	100	250	260	104	4	62-133/30
108-05-4	Vinyl Acetate	ND		250	257	103	250	265	106	3	10-169/30
75-01-4	Vinyl chloride	ND		250	212	85	250	215	86	1	29-176/30
	m,p-Xylene	ND		500	502	100	500	505	101	1	58-139/30
95-47-6	o-Xylene	ND		250	252	101	250	252	101	0	61-135/30
1330-20-7	Xylene (total)	0.62	J	750	754	100	750	758	101	1	60-136/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D69816-1MS	V38247.D	5	04/21/15	KD	n/a	n/a	MSV1378
D69816-1MSD	V38248.D	5	04/21/15	KD	n/a	n/a	MSV1378
D69816-1	V38246.D	1	04/21/15	KD	n/a	n/a	MSV1378

The QC reported here applies to the following samples: Method: SW846 8260C

MC37883-2, MC37883-4

CAS No.	Surrogate Recoveries	MS	MSD	D69816-1	Limits
1868-53-7	Dibromofluoromethane	101%	101%	101%	72-133%
2037-26-5	Toluene-D8	103%	104%	100%	85-114%
460-00-4	4-Bromofluorobenzene	100%	102%	100%	70-134%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

6.4.2

Volatile Internal Standard Area Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSV1376-CC1332	Injection Date:	04/17/15
Lab File ID:	V38184.D	Injection Time:	12:41
Instrument ID:	GCMSV	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	465519	6.54	737950	7.73	395536	11.08	428452	13.29	89641	3.51
Upper Limit [a]	931038	7.04	1475900	8.23	791072	11.58	856904	13.79	179282	4.01
Lower Limit [b]	232760	6.04	368975	7.23	197768	10.58	214226	12.79	44821	3.01
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV1376-BS	465519	6.54	737950	7.73	395536	11.08	428452	13.29	89641	3.51
MSV1376-MB	392941	6.55	663340	7.73	361669	11.08	380407	13.29	76444	3.51
ZZZZZZ	381048	6.54	662579	7.73	356209	11.08	370350	13.29	70142	3.50
ZZZZZZ	374070	6.55	651139	7.73	353606	11.08	369210	13.29	70463	3.50
ZZZZZZ	359061	6.55	621987	7.73	341756	11.08	358992	13.29	63522	3.51
ZZZZZZ	349244	6.55	614216	7.74	330918	11.08	347297	13.29	59086	3.51
MC37883-3	338648	6.55	589784	7.73	321265	11.08	331749	13.29	57458	3.50
MC37883-5	347750	6.55	610369	7.74	334891	11.08	350741	13.29	52802	3.51
ZZZZZZ	329734	6.55	581629	7.74	321744	11.08	337722	13.29	51312	3.51
ZZZZZZ	407892	6.54	664027	7.73	361941	11.08	390574	13.29	79023	3.50
ZZZZZZ	436818	6.54	702582	7.73	390686	11.08	404541	13.29	75017	3.50
ZZZZZZ	446028	6.55	720215	7.74	392492	11.08	414380	13.29	81099	3.51
ZZZZZZ	416253	6.55	703068	7.73	377670	11.08	402877	13.29	72416	3.51
MC37883-1	405403	6.55	694320	7.73	368858	11.08	379678	13.29	73832	3.50
ZZZZZZ	403545	6.55	697223	7.73	384984	11.08	403717	13.29	87625	3.51
ZZZZZZ	371210	6.54	645846	7.73	353316	11.08	361899	13.29	78130	3.50
ZZZZZZ	342107	6.55	600470	7.73	332673	11.08	348185	13.29	67611	3.51
ZZZZZZ	363485	6.54	630535	7.73	348764	11.08	381471	13.29	77981	3.50
ZZZZZZ	367941	6.55	672380	7.73	345510	11.08	347066	13.29	57967	3.51
MC37883-1MS	419972	6.54	677377	7.73	370087	11.08	402964	13.29	63389	3.50
MC37883-1MSD	413682	6.54	658709	7.73	360923	11.08	399353	13.29	63155	3.51

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

6.5.1

Volatile Internal Standard Area Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSV1378-CC1332	Injection Date:	04/21/15
Lab File ID:	V38238.D	Injection Time:	10:01
Instrument ID:	GCMSV	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	415194	6.57	681273	7.75	402063	11.09	474500	13.30	88636	3.53
Upper Limit [a]	830388	7.07	1362546	8.25	804126	11.59	949000	13.80	177272	4.03
Lower Limit [b]	207597	6.07	340637	7.25	201032	10.59	237250	12.80	44318	3.03
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV1378-BS	415194	6.57	681273	7.75	402063	11.09	474500	13.30	88636	3.53
MSV1378-BSD	414466	6.57	686625	7.76	407247	11.09	484673	13.30	92445	3.53
MSV1378-MB	241298	6.57	426771	7.76	263868	11.09	300181	13.30	53612	3.53
ZZZZZZ	505248	6.57	826757	7.75	433528	11.09	460128	13.30	80524	3.52
D69816-1	501356	6.57	811285	7.75	402435	11.09	429128	13.30	76105	3.52
D69816-1MS	517746	6.57	823882	7.75	410038	11.09	461126	13.30	85744	3.53
D69816-1MSD	524389	6.57	824496	7.75	416130	11.09	447204	13.30	90382	3.53
ZZZZZZ	495984	6.57	814711	7.75	393674	11.09	418333	13.30	81997	3.52
ZZZZZZ	456487	6.57	757892	7.75	372427	11.09	400093	13.30	82020	3.53
ZZZZZZ	424545	6.57	702539	7.75	353127	11.09	375453	13.30	75105	3.53
ZZZZZZ	417465	6.57	706591	7.75	353652	11.09	368036	13.30	70576	3.52
ZZZZZZ	406814	6.57	691545	7.75	353190	11.09	362700	13.30	71735	3.52
ZZZZZZ	370107	6.57	629082	7.75	314695	11.09	336116	13.30	63290	3.53
ZZZZZZ	382571	6.57	657272	7.75	339995	11.09	349043	13.30	69052	3.52
MC37883-4	386715	6.57	634618	7.75	324011	11.09	338137	13.30	71399	3.52
MC37883-2	370698	6.57	626872	7.75	328399	11.09	344594	13.30	64258	3.53
ZZZZZZ	370397	6.56	636239	7.75	328951	11.09	370519	13.30	61563	3.52
ZZZZZZ	376120	6.56	632170	7.75	327318	11.09	329992	13.30	63049	3.51
ZZZZZZ	357949	6.57	614551	7.75	320759	11.09	334497	13.30	62333	3.52
ZZZZZZ	493692	6.57	823423	7.75	427415	11.09	553932	13.30	288468[c]	3.53

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Outside control limits. Target analytes not associated with this internal standard.

6.5.2

Volatile Surrogate Recovery Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8260C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC37883-1	V38199.D	115	102	105
MC37883-2	V38257.D	118	105	100
MC37883-3	V38192.D	118	105	103
MC37883-4	V38256.D	110	105	101
MC37883-5	V38193.D	118	105	100
D69816-1MS	V38247.D	101	103	100
D69816-1MSD	V38248.D	101	104	102
MC37883-1MS	V38208.D	110	106	104
MC37883-1MSD	V38209.D	107	108	103
MSV1376-BS	V38184.D	105	106	104
MSV1376-MB	V38187.D	112	104	103
MSV1378-BS	V38238.D	109	108	100
MSV1378-BSD	V38239.D	108	108	99
MSV1378-MB	V38241.D	122	106	97

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	72-133%
S2 = Toluene-D8	85-114%
S3 = 4-Bromofluorobenzene	70-134%

6.6.1

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42630-MB	W21559.D	1	04/21/15	KD	04/10/15	OP42630	MSW922

The QC reported here applies to the following samples: Method: SW846 8270D

MC37883-1, MC37883-2, MC37883-3, MC37883-4

7.1.1

7

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.5	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.29	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.51	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.47	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.34	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.59	ug/l	
95-48-7	2-Methylphenol	ND	10	0.30	ug/l	
	3&4-Methylphenol	ND	10	0.44	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.47	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.35	ug/l	
108-95-2	Phenol	ND	5.0	0.32	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.45	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.45	ug/l	
62-53-3	Aniline	ND	10	0.46	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.25	ug/l	
85-68-7	Butyl benzyl phthalate	0.42	5.0	0.24	ug/l	J
100-51-6	Benzyl Alcohol	ND	10	0.32	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.34	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.49	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.42	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.42	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.26	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.37	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.38	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.53	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	0.28	5.0	0.27	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.0	0.29	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.27	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.24	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.32	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.24	ug/l	

Method Blank Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42630-MB	W21559.D	1	04/21/15	KD	04/10/15	OP42630	MSW922

The QC reported here applies to the following samples: Method: SW846 8270D

MC37883-1, MC37883-2, MC37883-3, MC37883-4

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.28	ug/l	
78-59-1	Isophorone	ND	5.0	0.47	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.36	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.40	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.51	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.48	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.25	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.25	ug/l	
110-86-1	Pyridine	ND	10	0.36	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	33%	10-79%
4165-62-2	Phenol-d5	26%	10-72%
118-79-6	2,4,6-Tribromophenol	68%	35-138%
4165-60-0	Nitrobenzene-d5	51%	30-116%
321-60-8	2-Fluorobiphenyl	47%	35-107%
1718-51-0	Terphenyl-d14	75%	43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

7.1.1

Method Blank Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42631-MB	I95235.D	1	04/20/15	MR	04/10/15	OP42631	MSI3562

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC37883-1, MC37883-2, MC37883-3, MC37883-4

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.0075	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.0084	ug/l	
120-12-7	Anthracene	ND	0.10	0.0098	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.015	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.019	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.013	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.0074	ug/l	
86-73-7	Fluorene	ND	0.10	0.015	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.020	ug/l	
90-12-0	1-Methylnaphthalene	0.022	2.0	0.012	ug/l	J
91-57-6	2-Methylnaphthalene	0.023	2.0	0.011	ug/l	J
85-01-8	Phenanthrene	ND	0.050	0.011	ug/l	
129-00-0	Pyrene	ND	0.10	0.0085	ug/l	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	50%	26-121%
321-60-8	2-Fluorobiphenyl	44%	28-107%
1718-51-0	Terphenyl-d14	78%	29-129%

Blank Spike Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42630-BS	W21560.D	1	04/21/15	KD	04/10/15	OP42630	MSW922

The QC reported here applies to the following samples: Method: SW846 8270D

MC37883-1, MC37883-2, MC37883-3, MC37883-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	50	20.2	40	10-73
95-57-8	2-Chlorophenol	50	41.0	82	47-106
59-50-7	4-Chloro-3-methyl phenol	50	45.5	91	50-111
120-83-2	2,4-Dichlorophenol	50	45.6	91	53-114
105-67-9	2,4-Dimethylphenol	50	39.7	79	23-110
51-28-5	2,4-Dinitrophenol	50	35.8	72	10-156
534-52-1	4,6-Dinitro-o-cresol	50	43.1	86	17-159
95-48-7	2-Methylphenol	50	37.4	75	40-92
	3&4-Methylphenol	100	75.2	75	38-86
88-75-5	2-Nitrophenol	50	47.8	96	53-115
100-02-7	4-Nitrophenol	50	24.1	48	10-83
87-86-5	Pentachlorophenol	50	41.5	83	41-122
108-95-2	Phenol	50	23.2	46	15-55
95-95-4	2,4,5-Trichlorophenol	50	48.1	96	52-120
88-06-2	2,4,6-Trichlorophenol	50	48.9	98	53-119
62-53-3	Aniline	50	31.6	63	26-87
101-55-3	4-Bromophenyl phenyl ether	50	50.5	101	65-127
85-68-7	Butyl benzyl phthalate	50	49.9	100	68-128
100-51-6	Benzyl Alcohol	50	42.5	85	13-108
91-58-7	2-Chloronaphthalene	50	48.0	96	58-120
106-47-8	4-Chloroaniline	50	42.5	85	48-106
111-91-1	bis(2-Chloroethoxy)methane	50	46.1	92	42-118
111-44-4	bis(2-Chloroethyl)ether	50	43.3	87	35-123
108-60-1	bis(2-Chloroisopropyl)ether	50	45.9	92	37-160
7005-72-3	4-Chlorophenyl phenyl ether	50	49.1	98	57-121
122-66-7	1,2-Diphenylhydrazine	50	49.6	99	54-128
121-14-2	2,4-Dinitrotoluene	50	52.5	105	64-127
606-20-2	2,6-Dinitrotoluene	50	49.5	99	55-135
91-94-1	3,3'-Dichlorobenzidine	50	45.7	91	49-141
132-64-9	Dibenzofuran	50	46.9	94	60-107
84-74-2	Di-n-butyl phthalate	50	47.9	96	68-117
117-84-0	Di-n-octyl phthalate	50	48.9	98	60-139
84-66-2	Diethyl phthalate	50	49.2	98	51-127
131-11-3	Dimethyl phthalate	50	49.3	99	22-147
117-81-7	bis(2-Ethylhexyl)phthalate	50	52.0	104	69-133
118-74-1	Hexachlorobenzene	50	50.5	101	62-131

* = Outside of Control Limits.

7.2.1

7

Blank Spike Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42630-BS	W21560.D	1	04/21/15	KD	04/10/15	OP42630	MSW922

The QC reported here applies to the following samples: Method: SW846 8270D

MC37883-1, MC37883-2, MC37883-3, MC37883-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	5.2	10	10-74
67-72-1	Hexachloroethane	50	31.5	63	15-104
78-59-1	Isophorone	50	41.0	82	44-110
88-74-4	2-Nitroaniline	50	52.2	104	63-123
99-09-2	3-Nitroaniline	50	44.5	89	63-112
100-01-6	4-Nitroaniline	50	47.3	95	58-114
98-95-3	Nitrobenzene	50	44.6	89	37-130
62-75-9	n-Nitrosodimethylamine	50	36.7	73	18-80
621-64-7	N-Nitroso-di-n-propylamine	50	43.7	87	44-128
86-30-6	N-Nitrosodiphenylamine	50	44.0	88	62-107
110-86-1	Pyridine	50	15.7	31	10-77

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	65%	10-79%
4165-62-2	Phenol-d5	49%	10-72%
118-79-6	2,4,6-Tribromophenol	108%	35-138%
4165-60-0	Nitrobenzene-d5	95%	30-116%
321-60-8	2-Fluorobiphenyl	93%	35-107%
1718-51-0	Terphenyl-d14	104%	43-135%

* = Outside of Control Limits.

7.2.1

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42631-BS	I95236.D	1	04/20/15	MR	04/10/15	OP42631	MSI3562
OP42631-BSD	I95237.D	1	04/20/15	MR	04/10/15	OP42631	MSI3562

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC37883-1, MC37883-2, MC37883-3, MC37883-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	50	41.9	84	39.4	79	6	45-116/30
208-96-8	Acenaphthylene	50	39.1	78	36.9	74	6	34-110/30
120-12-7	Anthracene	50	44.0	88	41.6	83	6	50-117/30
56-55-3	Benzo(a)anthracene	50	50.2	100	49.0	98	2	55-139/30
50-32-8	Benzo(a)pyrene	50	52.4	105	51.6	103	2	48-131/30
205-99-2	Benzo(b)fluoranthene	50	48.5	97	48.1	96	1	49-141/30
191-24-2	Benzo(g,h,i)perylene	50	50.0	100	50.2	100	0	60-130/30
207-08-9	Benzo(k)fluoranthene	50	48.1	96	45.7	91	5	49-133/30
218-01-9	Chrysene	50	45.6	91	44.4	89	3	52-128/30
53-70-3	Dibenzo(a,h)anthracene	50	50.2	100	50.0	100	0	60-136/30
206-44-0	Fluoranthene	50	46.7	93	45.3	91	3	46-132/30
86-73-7	Fluorene	50	42.5	85	40.5	81	5	53-120/30
193-39-5	Indeno(1,2,3-cd)pyrene	50	51.0	102	50.8	102	0	57-134/30
90-12-0	1-Methylnaphthalene	50	39.5	79	36.8	74	7	41-105/30
91-57-6	2-Methylnaphthalene	50	39.5	79	37.4	75	5	36-111/30
85-01-8	Phenanthrene	50	42.2	84	40.2	80	5	50-120/30
129-00-0	Pyrene	50	46.0	92	44.9	90	2	48-127/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
4165-60-0	Nitrobenzene-d5	94%	85%	26-121%
321-60-8	2-Fluorobiphenyl	84%	78%	28-107%
1718-51-0	Terphenyl-d14	111%	104%	29-129%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42630-MS	W21561.D	1	04/21/15	KD	04/10/15	OP42630	MSW922
OP42630-MSD	W21562.D	1	04/21/15	KD	04/10/15	OP42630	MSW922
MC37883-1	W21563.D	1	04/21/15	KD	04/10/15	OP42630	MSW922

The QC reported here applies to the following samples: Method: SW846 8270D

MC37883-1, MC37883-2, MC37883-3, MC37883-4

7.4.1

7

CAS No.	Compound	MC37883-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		51	17.6	34	51.5	18.1	35	3	10-76/20
95-57-8	2-Chlorophenol	ND		51	40.9	80	51.5	41.7	81	2	37-112/20
59-50-7	4-Chloro-3-methyl phenol	ND		51	44.6	87	51.5	45.9	89	3	43-115/20
120-83-2	2,4-Dichlorophenol	ND		51	45.3	89	51.5	46.8	91	3	47-119/20
105-67-9	2,4-Dimethylphenol	ND		51	41.7	82	51.5	40.5	79	3	15-118/20
51-28-5	2,4-Dinitrophenol	ND		51	37.7	74	51.5	41.1	80	9	10-165/20
534-52-1	4,6-Dinitro-o-cresol	ND		51	45.7	90	51.5	48.2	94	5	13-165/20
95-48-7	2-Methylphenol	ND		51	35.7	70	51.5	36.5	71	2	30-99/20
	3&4-Methylphenol	ND		102	71.0	70	103	72.5	70	2	32-89/20
88-75-5	2-Nitrophenol	ND		51	47.4	93	51.5	49.0	95	3	44-120/20
100-02-7	4-Nitrophenol	ND		51	21.1	41	51.5	21.0	41	0	10-93/20
87-86-5	Pentachlorophenol	ND		51	43.2	85	51.5	45.1	87	4	33-131/20
108-95-2	Phenol	ND		51	19.9	39	51.5	20.2	39	1	15-53/20
95-95-4	2,4,5-Trichlorophenol	ND		51	47.6	93	51.5	49.7	96	4	45-126/20
88-06-2	2,4,6-Trichlorophenol	ND		51	48.6	95	51.5	50.5	98	4	45-124/20
62-53-3	Aniline	ND		51	31.2	61	51.5	29.1	56	7	18-91/20
101-55-3	4-Bromophenyl phenyl ether	ND		51	49.6	97	51.5	51.4	100	4	57-131/20
85-68-7	Butyl benzyl phthalate	ND		51	50.0	98	51.5	51.9	101	4	58-135/20
100-51-6	Benzyl Alcohol	ND		51	39.9	78	51.5	40.7	79	2	10-109/20
91-58-7	2-Chloronaphthalene	ND		51	46.6	91	51.5	49.0	95	5	51-123/20
106-47-8	4-Chloroaniline	ND		51	39.7	78	51.5	38.7	75	3	39-109/20
111-91-1	bis(2-Chloroethoxy)methane	ND		51	44.2	87	51.5	46.2	90	4	36-120/20
111-44-4	bis(2-Chloroethyl)ether	ND		51	41.7	82	51.5	42.9	83	3	30-124/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		51	44.5	87	51.5	46.3	90	4	25-171/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		51	48.0	94	51.5	49.6	96	3	51-122/20
122-66-7	1,2-Diphenylhydrazine	ND		51	48.5	95	51.5	50.6	98	4	47-130/20
121-14-2	2,4-Dinitrotoluene	ND		51	51.0	100	51.5	53.8	104	5	57-131/20
606-20-2	2,6-Dinitrotoluene	ND		51	48.5	95	51.5	50.3	98	4	52-135/20
91-94-1	3,3'-Dichlorobenzidine	ND		51	46.6	91	51.5	44.7	87	4	25-157/20
132-64-9	Dibenzofuran	ND		51	45.6	89	51.5	47.3	92	4	54-110/20
84-74-2	Di-n-butyl phthalate	ND		51	48.3	95	51.5	50.0	97	3	60-122/20
117-84-0	Di-n-octyl phthalate	ND		51	49.3	97	51.5	50.8	99	3	54-142/20
84-66-2	Diethyl phthalate	ND		51	48.3	95	51.5	50.1	97	4	40-132/20
131-11-3	Dimethyl phthalate	ND		51	48.2	94	51.5	50.1	97	4	13-149/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		51	52.5	103	51.5	54.3	105	3	59-139/20
118-74-1	Hexachlorobenzene	ND		51	49.3	97	51.5	51.7	100	5	56-135/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42630-MS	W21561.D	1	04/21/15	KD	04/10/15	OP42630	MSW922
OP42630-MSD	W21562.D	1	04/21/15	KD	04/10/15	OP42630	MSW922
MC37883-1	W21563.D	1	04/21/15	KD	04/10/15	OP42630	MSW922

The QC reported here applies to the following samples: Method: SW846 8270D

MC37883-1, MC37883-2, MC37883-3, MC37883-4

CAS No.	Compound	MC37883-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		51	7.1	14	51.5	8.1	16	13	10-73/20
67-72-1	Hexachloroethane	ND		51	29.2	57	51.5	32.0	62	9	13-103/20
78-59-1	Isophorone	ND		51	38.9	76	51.5	40.5	79	4	41-110/20
88-74-4	2-Nitroaniline	ND		51	50.3	99	51.5	52.2	101	4	57-126/20
99-09-2	3-Nitroaniline	ND		51	45.5	89	51.5	46.3	90	2	53-118/20
100-01-6	4-Nitroaniline	ND		51	47.1	92	51.5	47.1	91	0	50-119/20
98-95-3	Nitrobenzene	ND		51	42.8	84	51.5	44.8	87	5	35-127/20
62-75-9	n-Nitrosodimethylamine	ND		51	32.8	64	51.5	34.2	66	4	11-82/20
621-64-7	N-Nitroso-di-n-propylamine	ND		51	42.5	83	51.5	43.5	84	2	39-129/20
86-30-6	N-Nitrosodiphenylamine	ND		51	43.4	85	51.5	45.7	89	5	55-112/20
110-86-1	Pyridine	ND		51	18.3	36	51.5	15.8	31	15	15-71/20

CAS No.	Surrogate Recoveries	MS	MSD	MC37883-1	Limits
367-12-4	2-Fluorophenol	54%	57%	28%	10-79%
4165-62-2	Phenol-d5	38%	40%	20%	10-72%
118-79-6	2,4,6-Tribromophenol	103%	107%	62%	35-138%
4165-60-0	Nitrobenzene-d5	88%	92%	50%	30-116%
321-60-8	2-Fluorobiphenyl	85%	90%	48%	35-107%
1718-51-0	Terphenyl-d14	102%	107%	72%	43-135%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42631-MS	I95238.D	1	04/20/15	MR	04/10/15	OP42631	MSI3562
OP42631-MSD	I95239.D	1	04/20/15	MR	04/10/15	OP42631	MSI3562
MC37883-1	I95240.D	1	04/20/15	MR	04/10/15	OP42631	MSI3562

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC37883-1, MC37883-2, MC37883-3, MC37883-4

7.4.2

7

CAS No.	Compound	MC37883-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		51	40.8	80	51.5	42.1	82	3	36-124/20
208-96-8	Acenaphthylene	ND		51	38.4	75	51.5	39.6	77	3	25-116/20
120-12-7	Anthracene	ND		51	42.7	84	51.5	44.0	85	3	42-122/20
56-55-3	Benzo(a)anthracene	ND		51	49.9	98	51.5	52.1	101	4	45-145/20
50-32-8	Benzo(a)pyrene	ND		51	53.1	104	51.5	55.1	107	4	40-136/20
205-99-2	Benzo(b)fluoranthene	ND		51	50.5	99	51.5	50.2	97	1	41-148/20
191-24-2	Benzo(g,h,i)perylene	ND		51	52.1	102	51.5	50.7	98	3	48-140/20
207-08-9	Benzo(k)fluoranthene	ND		51	44.8	88	51.5	50.7	98	12	45-131/20
218-01-9	Chrysene	ND		51	45.7	90	51.5	47.1	91	3	41-135/20
53-70-3	Dibenzo(a,h)anthracene	ND		51	51.6	101	51.5	51.4	100	0	49-144/20
206-44-0	Fluoranthene	ND		51	46.9	92	51.5	48.3	94	3	38-136/20
86-73-7	Fluorene	ND		51	42.1	83	51.5	43.7	85	4	43-127/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		51	52.4	103	51.5	51.7	100	1	45-142/20
90-12-0	1-Methylnaphthalene	ND		51	38.7	76	51.5	41.0	80	6	29-116/20
91-57-6	2-Methylnaphthalene	ND		51	39.2	77	51.5	41.2	80	5	27-117/20
85-01-8	Phenanthrene	ND		51	41.6	82	51.5	42.6	83	2	41-126/20
129-00-0	Pyrene	ND		51	46.5	91	51.5	47.4	92	2	41-131/20

CAS No.	Surrogate Recoveries	MS	MSD	MC37883-1	Limits
4165-60-0	Nitrobenzene-d5	86%	90%	50%	26-121%
321-60-8	2-Fluorobiphenyl	79%	82%	45%	28-107%
1718-51-0	Terphenyl-d14	106%	111%	74%	29-129%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3562-CC3561	Injection Date:	04/20/15
Lab File ID:	I95214.D	Injection Time:	12:06
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	241017	3.57	504755	4.60	286313	6.12	501516	7.43	355983	10.20	903409	11.62
Upper Limit [a]	482034	4.07	1009510	5.10	572626	6.62	1003032	7.93	711966	10.70	1806818	12.12
Lower Limit [b]	120509	3.07	252378	4.10	143157	5.62	250758	6.93	177992	9.70	451705	11.12
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP42721-MB	282239	3.57	596782	4.60	335689	6.12	578905	7.43	411963	10.20	1046484	11.62
OP42721-BS	281953	3.57	597005	4.61	329133	6.12	583372	7.44	412233	10.20	1009676	11.63
OP42721-BSD	266703	3.57	573245	4.61	318029	6.12	569020	7.44	401385	10.21	983101	11.63
ZZZZZZ	275946	3.57	579038	4.60	325910	6.12	566073	7.43	396273	10.20	997311	11.62
ZZZZZZ	267096	3.57	548399	4.60	307382	6.12	519483	7.43	372589	10.21	907129	11.63
ZZZZZZ	251095	3.57	523882	4.61	292015	6.12	513300	7.44	372703	10.21	933829	11.64
ZZZZZZ	280467	3.57	590785	4.61	326933	6.12	558884	7.43	407770	10.20	1016335	11.63
ZZZZZZ	274009	3.57	571023	4.61	313103	6.12	541036	7.43	390971	10.20	986041	11.63
ZZZZZZ	265494	3.57	561388	4.61	319038	6.12	545488	7.43	385114	10.20	969895	11.62
ZZZZZZ	263381	3.57	543165	4.60	303476	6.12	522659	7.43	377135	10.20	944284	11.63
ZZZZZZ	276739	3.57	576326	4.61	320949	6.12	549722	7.43	386220	10.20	968590	11.63
ZZZZZZ	259014	3.57	535352	4.61	296808	6.12	508596	7.43	364448	10.20	914539	11.63
ZZZZZZ	285435	3.57	584684	4.61	325354	6.12	552248	7.44	396786	10.20	955301	11.63
ZZZZZZ	275242	3.57	581689	4.61	329541	6.12	559382	7.43	393728	10.20	925096	11.63
ZZZZZZ	267120	3.57	559566	4.61	310993	6.12	526850	7.44	375490	10.21	878080	11.64
ZZZZZZ	257151	3.57	542951	4.61	304211	6.12	521253	7.43	362352	10.20	887799	11.63
ZZZZZZ	252659	3.57	524803	4.61	296322	6.12	511077	7.43	368591	10.20	920204	11.63
ZZZZZZ	256446	3.57	537823	4.61	302282	6.12	517943	7.43	369730	10.20	925667	11.63
ZZZZZZ	256799	3.57	516846	4.61	295437	6.12	481369	7.44	343811	10.21	831440	11.64
OP42695-MB	391215	3.57	880144	4.61	526526	6.12	925610	7.44	703028	10.21	1678034	11.64
OP42631-MB	281416	3.57	595183	4.61	341482	6.12	583841	7.43	416470	10.20	991495	11.63
OP42631-BS	273147	3.57	590866	4.61	332062	6.12	589286	7.44	416659	10.21	966431	11.63
OP42631-BSD	272780	3.57	590140	4.61	329669	6.12	589790	7.44	413758	10.21	970216	11.63
OP42631-MS	249370	3.57	539266	4.61	301494	6.12	534425	7.44	376096	10.21	891232	11.63
OP42631-MSD	258060	3.57	567209	4.61	322945	6.12	581129	7.44	415413	10.21	944623	11.63
MC37883-1	273060	3.57	582727	4.61	333378	6.12	578367	7.43	409809	10.20	998498	11.63
MC37883-2	272844	3.57	585065	4.61	326634	6.12	576903	7.43	391910	10.20	928470	11.63
MC37883-3	281695	3.57	600635	4.61	341970	6.12	584961	7.43	405306	10.20	950095	11.63

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

7.5.1

7

Semivolatile Internal Standard Area Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3562-CC3561	Injection Date:	04/20/15
Lab File ID:	I95214.D	Injection Time:	12:06
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.5.1

7

Semivolatile Internal Standard Area Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3563-CC3561	Injection Date:	04/21/15
Lab File ID:	I95245.D	Injection Time:	08:29
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	243799	3.57	513765	4.60	296822	6.12	514449	7.43	379947	10.20	955932	11.63
Upper Limit [a]	487598	4.07	1027530	5.10	593644	6.62	1028898	7.93	759894	10.70	1911864	12.13
Lower Limit [b]	121900	3.07	256883	4.10	148411	5.62	257225	6.93	189974	9.70	477966	11.13
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
MC37883-4	273578	3.57	586408	4.60	332427	6.12	578488	7.43	421898	10.20	1049475	11.63
ZZZZZZ	273927	3.57	572760	4.60	324715	6.12	556690	7.43	395730	10.20	974920	11.63
ZZZZZZ	294257	3.57	628399	4.60	357378	6.12	620206	7.43	444808	10.20	1104545	11.63
ZZZZZZ	282779	3.57	582639	4.61	342639	6.12	593020	7.43	438826	10.20	1090341	11.63
ZZZZZZ	264542	3.57	554563	4.61	320368	6.12	557768	7.43	403804	10.20	1001325	11.62
ZZZZZZ	265273	3.57	570501	4.60	324952	6.12	567191	7.43	405756	10.20	1013474	11.63
ZZZZZZ	270641	3.57	580466	4.60	336728	6.12	584163	7.43	422716	10.20	1040662	11.63
ZZZZZZ	256064	3.57	547080	4.60	315456	6.12	546603	7.43	396682	10.20	981889	11.63
ZZZZZZ	285888	3.57	606779	4.60	343490	6.12	586490	7.43	428870	10.20	1043453	11.63
ZZZZZZ	234344	3.57	517670	4.60	303310	6.12	546991	7.43	423648	10.20	1094075	11.63
ZZZZZZ	287166	3.57	613861	4.60	354939	6.12	614663	7.43	443171	10.20	1085338	11.63
OP42660-MB	294392	3.57	629403	4.60	362932	6.12	636544	7.43	473513	10.20	1143095	11.63
OP42660-BS	273214	3.57	596873	4.61	336009	6.12	594383	7.43	435081	10.21	1036802	11.63
OP42660-MS	255688	3.57	559279	4.61	316928	6.12	570808	7.43	412252	10.21	990375	11.63
OP42660-MSD	254712	3.57	561699	4.61	318102	6.12	566121	7.43	412194	10.21	986957	11.63
MC37900-20	276484	3.57	604097	4.60	356306	6.12	631425	7.43	472127	10.20	1155260	11.63
ZZZZZZ	276662	3.57	607315	4.60	358820	6.12	634528	7.43	474517	10.20	1175438	11.63

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.5.2

7

Semivolatile Internal Standard Area Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW922-CC902	Injection Date:	04/21/15
Lab File ID:	W21538.D	Injection Time:	08:19
Instrument ID:	GCMSW	Method:	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	263704	5.11	994608	6.21	583050	7.76	1058956	9.05	1148147	11.59	1132055	13.27
Upper Limit [a]	527408	5.61	1989216	6.71	1166100	8.26	2117912	9.55	2296294	12.09	2264110	13.77
Lower Limit [b]	131852	4.61	497304	5.71	291525	7.26	529478	8.55	574074	11.09	566028	12.77

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP42727-MB	273139	5.11	1028618	6.21	618013	7.76	1069146	9.04	1161701	11.58	1180761	13.27
OP42727-BS	278225	5.11	1042229	6.21	612620	7.76	1076627	9.05	1148618	11.59	1123637	13.27
OP42727-MS	326164	5.11	1224652	6.21	705659	7.76	1191909	9.05	1149866	11.59	1087776	13.27
OP42727-MSD	295458	5.11	1104968	6.21	635599	7.76	1094476	9.05	1046596	11.59	978871	13.27
MC38102-1	314052	5.11	1176756	6.21	708345	7.76	1158687	9.05	1119515	11.59	1043570	13.27
ZZZZZZ	320224	5.11	1189213	6.21	692024	7.76	1123527	9.05	1076401	11.59	1008648	13.27
ZZZZZZ	314120	5.11	1173354	6.21	688588	7.76	1120734	9.05	1050156	11.59	991685	13.27
ZZZZZZ	316950	5.11	1193316	6.21	702759	7.76	1129817	9.05	1062049	11.59	998117	13.27
ZZZZZZ	319169	5.11	1176712	6.21	693405	7.76	1145572	9.05	1086631	11.59	1020591	13.27
ZZZZZZ	268223	5.11	1002254	6.21	584313	7.76	952636	9.05	949708	11.59	954864	13.28
ZZZZZZ	317097	5.11	1183482	6.21	690408	7.76	1096208	9.05	977632	11.59	944125	13.28
ZZZZZZ	292986	5.11	1093644	6.21	638486	7.76	1003140	9.05	910406	11.59	873480	13.28
ZZZZZZ	288346	5.11	1060050	6.21	616848	7.76	1006949	9.05	1009257	11.59	1025591	13.28
ZZZZZZ	297495	5.11	1068073	6.22	626153	7.76	1029861	9.05	1048796	11.60	1044946	13.29
ZZZZZZ	294404	5.11	1093811	6.21	646329	7.76	1054720	9.05	1044095	11.60	1096855	13.29
ZZZZZZ	261533	5.11	963045	6.21	569542	7.76	931926	9.05	926367	11.59	955387	13.28
ZZZZZZ	271140	5.11	996526	6.21	585980	7.76	950487	9.05	962451	11.59	1001597	13.28
ZZZZZZ	314259	5.11	1132832	6.21	661610	7.76	1079582	9.05	1035462	11.59	1026626	13.28
ZZZZZZ	302954	5.11	1117186	6.21	655530	7.76	1066353	9.05	1026686	11.59	1003332	13.28
ZZZZZZ	313505	5.11	1146558	6.21	666277	7.76	1103600	9.05	1086014	11.59	1071554	13.28
OP42630-MB	332598	5.11	1217956	6.21	710701	7.76	1161770	9.05	1176929	11.59	1207070	13.28
OP42630-BS	321351	5.11	1186041	6.22	684492	7.76	1153118	9.05	1140455	11.59	1161287	13.28
OP42630-MS	316472	5.11	1177155	6.22	680544	7.76	1143515	9.05	1127129	11.59	1132364	13.28
OP42630-MSD	312833	5.11	1151006	6.22	662056	7.76	1101648	9.05	1078876	11.59	1092661	13.28
MC37883-1	342729	5.11	1257073	6.21	741354	7.76	1214789	9.05	1220506	11.59	1241858	13.28
MC37883-2	326081	5.11	1203892	6.21	716464	7.76	1165883	9.05	1155214	11.59	1167894	13.28

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.

7.5.3

7

Semivolatile Internal Standard Area Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW922-CC902	Injection Date:	04/21/15
Lab File ID:	W21538.D	Injection Time:	08:19
Instrument ID:	GCMSW	Method:	SW846 8270D

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.5.3

7

Semivolatile Internal Standard Area Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW923-CC902	Injection Date:	04/22/15
Lab File ID:	W21570.D	Injection Time:	10:21
Instrument ID:	GCMSW	Method:	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	262984	5.11	993693	6.22	579584	7.76	1050811	9.05	1129085	11.60	1137279	13.28
Upper Limit [a]	525968	5.61	1987386	6.72	1159168	8.26	2101622	9.55	2258170	12.10	2274558	13.78
Lower Limit [b]	131492	4.61	496847	5.72	289792	7.26	525406	8.55	564543	11.10	568640	12.78

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
ZZZZZZ	322156	5.11	1211370	6.21	729098	7.76	1233087	9.05	1343274	11.59	1350792	13.28
ZZZZZZ	285199	5.11	1065276	6.21	644147	7.76	1105003	9.05	1215476	11.59	1241847	13.28
ZZZZZZ	318977	5.11	1179447	6.21	712503	7.76	1238461	9.05	1351156	11.59	1385505	13.28
ZZZZZZ	304176	5.11	1133761	6.21	671321	7.76	1158918	9.05	1212537	11.59	1241321	13.28
MC37883-3	316325	5.11	1176965	6.21	710194	7.76	1212510	9.05	1319071	11.59	1342105	13.28
MC37883-4	308812	5.11	1138257	6.21	684944	7.76	1173272	9.05	1288410	11.59	1312185	13.28
ZZZZZZ	287031	5.11	1063106	6.21	633432	7.76	1089934	9.05	1179955	11.59	1208881	13.28
OP42763-MB	340655	5.11	1261307	6.21	749226	7.76	1288515	9.05	1411191	11.59	1419522	13.28
OP42763-BS	302222	5.11	1131105	6.21	665692	7.76	1160424	9.05	1264772	11.59	1248855	13.28
OP42763-MS	326756	5.11	1222200	6.21	713346	7.76	1247066	9.05	1274374	11.59	1245246	13.28
OP42763-MSD	312226	5.11	1162700	6.21	685622	7.76	1208182	9.05	1208544	11.59	1191563	13.28
MC38080-1	327837	5.11	1221539	6.21	722031	7.76	1239069	9.05	1268311	11.59	1226893	13.28
ZZZZZZ	322130	5.11	1190144	6.21	710368	7.76	1209634	9.05	1221807	11.59	1189367	13.28
ZZZZZZ	313778	5.11	1141868	6.21	678448	7.76	1150858	9.05	1139517	11.59	1093264	13.28
ZZZZZZ	305379	5.11	1134102	6.21	670677	7.76	1129044	9.05	1119805	11.59	1071135	13.28
ZZZZZZ	316166	5.11	1172384	6.21	697550	7.76	1174467	9.05	1173149	11.59	1136247	13.28
ZZZZZZ	281642	5.11	1042383	6.21	625505	7.76	1027424	9.05	1007831	11.59	965592	13.28
ZZZZZZ	324159	5.11	1198215	6.21	703934	7.76	1154988	9.05	1142086	11.60	1147585	13.30
OP42759-MB	289966	5.11	1085637	6.21	649934	7.76	1090316	9.05	1153317	11.59	1175318	13.28
OP42759-LB	289966	5.11	1085637	6.21	649934	7.76	1090316	9.05	1153317	11.59	1175318	13.28
OP42759-BS	290946	5.11	1086703	6.22	635802	7.76	1112654	9.05	1149368	11.60	1165314	13.28
OP42759-MS	291171	5.11	1083978	6.22	632481	7.76	1093897	9.05	1119525	11.59	1145406	13.28
OP42759-MSD	278136	5.11	1033546	6.21	605393	7.76	1058106	9.05	1073938	11.59	1084073	13.28
JB92642-5	273412	5.11	1034093	6.21	621764	7.76	1066227	9.05	1091280	11.59	1098020	13.28
ZZZZZZ	288764	5.11	1068591	6.21	639308	7.76	1093785	9.05	1095928	11.59	1116905	13.28
ZZZZZZ	286395	5.11	1071709	6.21	642276	7.76	1104766	9.05	1148071	11.59	1148437	13.28

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.

7.5.4

7

Semivolatile Internal Standard Area Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW923-CC902	Injection Date:	04/22/15
Lab File ID:	W21570.D	Injection Time:	10:21
Instrument ID:	GCMSW	Method:	SW846 8270D

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.5.4

7

Semivolatile Surrogate Recovery Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8270D Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC37883-1	W21563.D	28	20	62	50	48	72
MC37883-2	W21564.D	53	38	103	89	78	104
MC37883-3	W21575.D	35	25	80	62	57	92
MC37883-4	W21576.D	42	30	88	70	64	91
OP42630-BS	W21560.D	65	49	108	95	93	104
OP42630-MB	W21559.D	33	26	68	51	47	75
OP42630-MS	W21561.D	54	38	103	88	85	102
OP42630-MSD	W21562.D	57	40	107	92	90	107

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	10-79%
S2 = Phenol-d5	10-72%
S3 = 2,4,6-Tribromophenol	35-138%
S4 = Nitrobenzene-d5	30-116%
S5 = 2-Fluorobiphenyl	35-107%
S6 = Terphenyl-d14	43-135%

Semivolatile Surrogate Recovery Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8270D BY SIM Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC37883-1	I95240.D	50	45	74
MC37883-2	I95241.D	86	73	111
MC37883-3	I95242.D	61	54	103
MC37883-4	I95246.D	71	60	97
OP42631-BS	I95236.D	94	84	111
OP42631-BSD	I95237.D	85	78	104
OP42631-MB	I95235.D	50	44	78
OP42631-MS	I95238.D	86	79	106
OP42631-MSD	I95239.D	90	82	111

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	26-121%
S2 = 2-Fluorobiphenyl	28-107%
S3 = Terphenyl-d14	29-129%

7.6.2

7

New England ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries

Method Blank Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42703-MB	BB62801.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420

The QC reported here applies to the following samples: Method: SW846 8011

MC37883-1, MC37883-2, MC37883-3, MC37883-4, MC37883-6

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.0061	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.0061	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	Bromofluorobenzene (S)	105%	60-140%
460-00-4	Bromofluorobenzene (S)	105%	60-140%

8.1.1

Blank Spike Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42703-BS	BB62802.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420

The QC reported here applies to the following samples: Method: SW846 8011

MC37883-1, MC37883-2, MC37883-3, MC37883-4, MC37883-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.070	99	45-149
106-93-4	1,2-Dibromoethane	0.071	0.074	104	51-149

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	101%	60-140%
460-00-4	Bromofluorobenzene (S)	100%	60-140%

8.2.1

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42703-MS	BB62803.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420
OP42703-MSD	BB62804.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420
MC37883-1	BB62805.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420

The QC reported here applies to the following samples: Method: SW846 8011

MC37883-1, MC37883-2, MC37883-3, MC37883-4, MC37883-6

CAS No.	Compound	MC37883-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	ND		0.068	0.089	131	0.0688	0.059	86	41* [a]	31-169/30
106-93-4	1,2-Dibromoethane	ND		0.068	0.099	146	0.0688	0.062	90	46* [a]	34-175/30

CAS No.	Surrogate Recoveries	MS	MSD	MC37883-1	Limits
460-00-4	Bromofluorobenzene (S)	131%	97%	99%	60-140%
460-00-4	Bromofluorobenzene (S)	140%	103%	107%	60-140%

(a) High RPD due to possible matrix interference and/or sample non-homogeneity.

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8011 Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
MC37883-1	BB62805.D	99	107
MC37883-2	BB62806.D	105	109
MC37883-3	BB62807.D	99	105
MC37883-4	BB62808.D	104	106
MC37883-6	BB62809.D	104	110
OP42703-BS	BB62802.D	101	100
OP42703-MB	BB62801.D	105	105
OP42703-MS	BB62803.D	131	140
OP42703-MSD	BB62804.D	97	103

Surrogate Compounds	Recovery Limits
S1 = Bromofluorobenzene (S)	60-140%

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

8.4.1

GC Surrogate Retention Time Summary

Job Number: MC37883
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBB3420-ICC3420	Injection Date:	04/17/15
Lab File ID:	BB62797.D	Injection Time:	13:57
Instrument ID:	GCBB	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	6.88	7.25

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP42703-MB	BB62801.D	04/17/15	15:56	6.88	7.25
OP42703-BS	BB62802.D	04/17/15	16:26	6.88	7.25
OP42703-MS	BB62803.D	04/17/15	16:56	6.88	7.25
OP42703-MSD	BB62804.D	04/17/15	17:25	6.88	7.25
MC37883-1	BB62805.D	04/17/15	17:53	6.88	7.26
MC37883-2	BB62806.D	04/17/15	18:23	6.89	7.26
MC37883-3	BB62807.D	04/17/15	18:52	6.89	7.26
MC37883-4	BB62808.D	04/17/15	19:22	6.89	7.26
MC37883-6	BB62809.D	04/17/15	19:52	6.88	7.25
ZZZZZZ	BB62810.D	04/17/15	20:21	6.88	7.25

Surrogate Compounds

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.5.1

Roxana Groundwater Quarterly – 2nd Quarter 2015 Data Review

Laboratory SDG: MC37884

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 4/23/2015

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2014

Sample Identification	Sample Identification
MW23-ROX-040815	TB-ROX-040815-HCL-BP
TB-ROX-040815-ST-BP	

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 SVOCs and PAHs were detected in the method blank. This issue is addressed further in the appropriate section below. Additionally, the initial calibration verification for 2-hexanone and hexachlorocyclopentadiene exceeded 30 percent difference (%D).

The cooler receipt form indicated that one of one cooler was received by the laboratory at a temperature of 1.7°C, which is outside the 4ºC ± 2ºC criteria. Samples were received in good condition; therefore, no qualification of data was required.

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
OP42630-MB	SVOCs	Butyl benzyl phthalate	0.42 µg/L
OP42630-MB	SVOCs	Di-n-butyl phthalate	0.28 µg/L
OP42631-MB	PAHs	1-Methylnaphthalene	0.022 µg/L
OP42631-MB	PAHs	2-Methylnaphthalene	0.023 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. Please see section 12.0 of this review for additional qualifications regarding samples associated with 1-

methylnaphthalene and 2-methylnaphthalene in method blank OP-46231-MB.

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

Yes

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

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

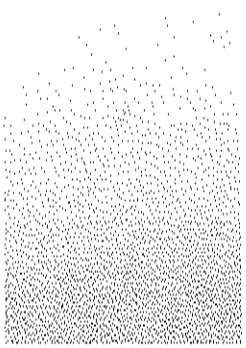
Were additional qualifications applied?

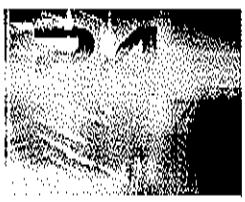
Yes, professional judgment was also used to qualify as estimated, however not reject, data that was associated with 1-methylnaphthalene and 2-methylnaphthalene in method blank OP-46231-MB, due to comparable historical detections.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW23-ROX-040815	PAHs	1-Methylnaphthalene	-	**U**
MW23-ROX-040815	PAHs	2-Methylnaphthalene	-	**U**

New England ACCUTEST LABORATORIES

04/23/15





Technical Report for

Shell Oil

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana,

Accutest Job Number: MC37884

Sampling Date: 04/08/15

Report to:

AECOM, INC.

Melissa.mansker@urs.com

ATTN: Melissa Mansker

Total number of pages in report: 71

NELAP ACCREDITED ENI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Reviewed on 4/23/2015

Reza Tand
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

Sections: 1 2 3 4 5 6 7 8

Table of Contents

Section 1: Sample Summary 3
Section 2: Case Narrative/Conformance Summary 4
Section 3: Summary of Hits 6
Section 4: Sample Results 7
4.1: MC37884-1: MW23-ROX-040815 8
4.2: MC37884-2: TB-ROX-040815-HCL-BP 15
4.3: MC37884-3: TB-ROX-040815-ST-BP 18
Section 5: Misc. Forms 19
5.1: Chain of Custody 20
5.2: Sample Tracking Chronicle 22
5.3: Internal Chain of Custody 23
Section 6: GC/MS Volatiles - QC Data Summaries 24
6.1: Method Blank Summary 25
6.2: Blank Spike Summary 31
6.3: Blank Spike/Blank Spike Duplicate Summary 34
6.4: Matrix Spike/Matrix Spike Duplicate Summary 37
6.5: Internal Standard Area Summaries 43
6.6: Surrogate Recovery Summaries 45
Section 7: GC/MS Semi-volatiles - QC Data Summaries 46
7.1: Method Blank Summary 47
7.2: Blank Spike Summary 50
7.3: Blank Spike/Blank Spike Duplicate Summary 52
7.4: Matrix Spike/Matrix Spike Duplicate Summary 53
7.5: Internal Standard Area Summaries 56
7.6: Surrogate Recovery Summaries 63
Section 8: GC Volatiles - QC Data Summaries 65
8.1: Method Blank Summary 66
8.2: Blank Spike Summary 67
8.3: Matrix Spike/Matrix Spike Duplicate Summary 68
8.4: Surrogate Recovery Summaries 69
8.5: GC Surrogate Retention Time Summaries 70

Sample Summary

Shell Oil

Job No: MC37884

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
MC37884-1	04/08/15	10:00 DCBT	04/09/15	AQ	Ground Water	MW23-ROX-040815
MC37884-2	04/08/15	00:00 DCBT	04/09/15	AQ	Trip Blank Water	TB-ROX-040815-HCL-BP
MC37884-3	04/08/15	00:00 DCBT	04/09/15	AQ	Trip Blank Water	TB-ROX-040815-ST-BP

ACCUTEST LABORATORIES

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	Job No	MC37884
Site:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central	Report Date	4/23/2015 12:30:43 PM

1 Sample(s), 2 Trip Blank(s) and 0 Field Blank(s) were collected on 04/08/2015 and were received at Accutest on 04/09/2015 properly preserved, at 1.7 Deg. C and intact. These Samples received an Accutest job number of MC37884. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report. 1-Chlorohexane, Benzenethiol, Dibenz(a,h)acridine, Indene, and Quinoline were searched in the library search and reported only if detections were found.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix: AQ **Batch ID:** MSV1376

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC37883-1MS, MC37883-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- MC37883-1MS/MSD for 2-Chloroethyl vinyl ether are outside control limits due to possible matrix interference. Refer to Blank Spike.
- Initial calibration verification standard MSV1332-ICV1332 for 2-hexanone exceed 30% Difference (response biased high). Associated samples are non-detect for these compounds.

Matrix: AQ **Batch ID:** MSV1378

- All samples were analyzed within the recommended method holding time.
- Sample(s) D69816-1MS, D69816-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- D69816-1MS/MSD for 2-Chloroethyl vinyl ether are outside control limits due to possible matrix interference. Refer to Blank Spike.

Extractables by GCMS By Method SW846 8270D

Matrix: AQ **Batch ID:** OP42630

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC37883-1MS, MC37883-1MSD were used as the QC samples indicated.
- Initial calibration verification MSW902-ICV902 for Hexachlorocyclopentadiene exceed 30% Difference. Hexachlorocyclopentadiene is within criteria in continuing calibration check MSW922-CC902, MSW923-CC902.

Extractables by GCMS By Method SW846 8270D BY SIM

Matrix: AQ **Batch ID:** OP42631

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC37883-1MS, MC37883-1MSD were used as the QC samples indicated.
- Sample(s) MC37884-1 have compound(s) reported with a "B" qualifier, indicating analyte is found in the associated method blank.

Volatiles by GC By Method SW846 8011

Matrix: AQ	Batch ID: OP42703

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC37883-1MS, MC37883-1MSD were used as the QC samples indicated.
- All samples were extracted within the recommended method holding time.
- RPD(s) for OP42703-MSD for 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane are outside control limits. High RPD due to possible matrix interference and/or sample non-homogeneity.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC37884).

Summary of Hits

Job Number: MC37884
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Collected: 04/08/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC37884-1	MW23-ROX-040815					
Methyl Tert Butyl Ether		3.9	1.0	0.35	ug/l	SW846 8260C
Acenaphthene		0.076 J	0.10	0.0077	ug/l	SW846 8270D BY SIM
Anthracene		0.058 J	0.10	0.010	ug/l	SW846 8270D BY SIM
Chrysene		0.028 J	0.10	0.013	ug/l	SW846 8270D BY SIM
Fluoranthene		0.029 J	0.10	0.0076	ug/l	SW846 8270D BY SIM
Fluorene		0.053 J	0.10	0.015	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		0.036 JB	2.0	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		0.028 JB	2.0	0.011	ug/l	SW846 8270D BY SIM
Phenanthrene		0.57	0.051	0.011	ug/l	SW846 8270D BY SIM
Pyrene		0.15	0.10	0.0087	ug/l	SW846 8270D BY SIM
MC37884-2	TB-ROX-040815-HCL-BP					
No hits reported in this sample.						
MC37884-3	TB-ROX-040815-ST-BP					
No hits reported in this sample.						

New England ACCUTEST LABORATORIES

4

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW23-ROX-040815		
Lab Sample ID:	MC37884-1	Date Sampled:	04/08/15
Matrix:	AQ - Ground Water	Date Received:	04/09/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38255.D	1	04/21/15	KD	n/a	n/a	MSV1378
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW23-ROX-040815		
Lab Sample ID:	MC37884-1	Date Sampled:	04/08/15
Matrix:	AQ - Ground Water	Date Received:	04/09/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	3.9	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW23-ROX-040815		
Lab Sample ID:	MC37884-1	Date Sampled:	04/08/15
Matrix:	AQ - Ground Water	Date Received:	04/09/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	114%		72-133%
2037-26-5	Toluene-D8	104%		85-114%
460-00-4	4-Bromofluorobenzene	107%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW23-ROX-040815		
Lab Sample ID:	MC37884-1	Date Sampled:	04/08/15
Matrix:	AQ - Ground Water	Date Received:	04/09/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21574.D	1	04/22/15	KD	04/10/15	OP42630	MSW923
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.1	0.30	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.52	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.48	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.34	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.60	ug/l	
95-48-7	2-Methylphenol	ND	10	0.31	ug/l	
	3&4-Methylphenol	ND	10	0.45	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.47	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.35	ug/l	
108-95-2	Phenol	ND	5.1	0.33	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.46	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.46	ug/l	
62-53-3	Aniline	ND	10	0.47	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.1	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.1	0.25	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.33	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.1	0.35	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.1	0.50	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.1	0.43	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.1	0.43	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.1	0.26	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.1	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.38	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.38	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.1	0.54	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.1	0.28	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.1	0.29	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW23-ROX-040815		
Lab Sample ID:	MC37884-1	Date Sampled:	04/08/15
Matrix:	AQ - Ground Water	Date Received:	04/09/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.1	0.27	ug/l	
131-11-3	Dimethyl phthalate	ND	5.1	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.32	ug/l	
118-74-1	Hexachlorobenzene	ND	5.1	0.25	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.1	0.29	ug/l	
78-59-1	Isophorone	ND	5.1	0.48	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.36	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.41	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.52	ug/l	
98-95-3	Nitrobenzene	ND	5.1	0.49	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.1	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.1	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	0.26	ug/l	
110-86-1	Pyridine	ND	10	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	37%		10-79%
4165-62-2	Phenol-d5	27%		10-72%
118-79-6	2,4,6-Tribromophenol	92%		35-138%
4165-60-0	Nitrobenzene-d5	63%		30-116%
321-60-8	2-Fluorobiphenyl	64%		35-107%
1718-51-0	Terphenyl-d14	91%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW23-ROX-040815		
Lab Sample ID:	MC37884-1	Date Sampled:	04/08/15
Matrix:	AQ - Ground Water	Date Received:	04/09/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95247.D	1	04/21/15	MR	04/10/15	OP42631	MSI3563
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.076	0.10	0.0077	ug/l	J
208-96-8	Acenaphthylene	ND	0.10	0.0086	ug/l	
120-12-7	Anthracene	0.058	0.10	0.010	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.051	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.051	0.019	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	0.028	0.10	0.013	ug/l	J
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	0.029	0.10	0.0076	ug/l	J
86-73-7	Fluorene	0.053	0.10	0.015	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.021	ug/l	
90-12-0	1-Methylnaphthalene	0.036	2.0	0.013	ug/l	JB J
91-57-6	2-Methylnaphthalene	0.028	2.0	0.011	ug/l	JB J
85-01-8	Phenanthrene	0.57	0.051	0.011	ug/l	
129-00-0	Pyrene	0.15	0.10	0.0087	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	63%		26-121%
321-60-8	2-Fluorobiphenyl	60%		28-107%
1718-51-0	Terphenyl-d14	96%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW23-ROX-040815		
Lab Sample ID:	MC37884-1	Date Sampled:	04/08/15
Matrix:	AQ - Ground Water	Date Received:	04/09/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62810.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	37.1 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0058	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0058	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	95%		60-140%
460-00-4	Bromofluorobenzene (S)	113%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-040815-HCL-BP		
Lab Sample ID:	MC37884-2	Date Sampled:	04/08/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/09/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38194.D	1	04/17/15	KD	n/a	n/a	MSV1376
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-040815-HCL-BP		
Lab Sample ID:	MC37884-2	Date Sampled:	04/08/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/09/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-040815-HCL-BP		
Lab Sample ID:	MC37884-2	Date Sampled:	04/08/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/09/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	121%		72-133%
2037-26-5	Toluene-D8	105%		85-114%
460-00-4	4-Bromofluorobenzene	99%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-040815-ST-BP		
Lab Sample ID:	MC37884-3	Date Sampled:	04/08/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/09/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62812.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	36.7 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0058	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0058	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	106%		60-140%
460-00-4	Bromofluorobenzene (S)	113%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

Misc. Forms

05

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

LAB (LOCA)

☐ PHOTO ( )
☐ CALSCIENCE
☑ OTHER Accutest Labs, 495 Technology Cir W Marlborough, MA 01752 (508-481-6200)
☐ Lab Vendor # ( )
☐ OR
Lab Vendor #

Shell Oil Products Chain Of Custody Record

ECOM

Please Check Appropriate Box:
☑ ENV. SERVICES ☐ NOTIVA RETAIL ☐ SHELL RETAIL
☐ NOTIVA SOACH ☐ CONSULTANT ☐ RUBS
☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name: Bob Bittman

PO #

INCIDENT # (ENV SERVICES): 0 7 2 1 4 6 4 0

SAP #: 3 4 0 0 8 1

☐ CHECK IF NO INCIDENT # APPLIES

DATE: 4-8-15

PAGE: 1 of 1

SHIPPING COMPANY: URS CORPORATION

ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300; ST. LOUIS, MO 63110

PROJECT CONTACT (Name of Sender): Elizabeth Kunkel, Bob Bittman, Lindsay Rathnow

TELEPHONE: 314-429-0100 FAX: 314-429-0402

SAMPLE CONTACT: bob.bittman@aecom.com; elizabeth.kunkel@aecom.com; lindsay.rathnow@aecom.com

TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (10 DAY) ☐ 1 DAYS ☐ 3 DAYS ☐ 7 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ EA. SWEED REPORT FORMAT ☐ UST AGENCY

DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☐ LEVEL 4 ☑ OTHER (SPECIFY) EOD

TEMPERATURE ON RECEIPT C°: Cooler #1 Cooler #2 Cooler #3

SPECIAL INSTRUCTIONS OR NOTES:
* Please include "J" values on Reports.
* Please provide sample receipt upon login.

☑ SHELL CONTRACT RATE APPLIES
☐ STATE GOVERNMENT RATE APPLIES
☐ FOR NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEED DATA

SITE ADDRESS: 900 South Central Ave; ROXANA

CITY: IL

CONSULTANT PROJECT: Roxana Quarterly GW J 21583720.03002

SHIPPING COMPANY: DChase / BTesfu

LAB USE ONLY: mc37884

REQUESTED ANALYSIS

FIELD NOTES:

TEMPERATURE ON RECEIPT C°

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	PRESERVATIVE HNO3	PRESERVATIVE H2SO4	PRESERVATIVE NONE	PRESERVATIVE OTHER	NO. OF CONT.	VOC 8260C SL+TICS	VOC 8011 SL	SVOC 8270D SL+TICS	PAH 8270SL	Container PID Readings or Laboratory Notes
-1	MW23-ROX-040815	4/8/15	1000	water	2			2	2	6	X	X	X	X	0.0
-2	TB-ROX-040815-HCL-BP	↓	0000	↓	2					2	X				↓
-3	TB-ROX-040815-ST-BP	↓	0000	↓					2	2		X			
															16BB, 3F3,

Relinquished by (Signature)	Received by (Signature)	Date	Time
[signature]	#8066 2852 5029 FED EX	4-8-15	1780
FEDEX	[signature]	4/9/15	10:20

custody seals → ROX 1
OK

REC 1.7°

5.1

5

MC37884: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC37884 **Client:** URS **Project:** 900 SOUTH CENTRAL

Date / Time Received: 4/9/2015 10:20:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (1.7/1.7);

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	[x] [ ]	3. COC Present:	[x] [ ]
2. Custody Seals Intact:	[x] [ ]	4. Smpl Dates/Time OK	[x] [ ]

Cooler Temperature	Y or N
1. Temp criteria achieved:	[x] [ ]
2. Thermometer ID:	G1;
3. Cooler media:	Ice (Bag)
4. No. Coolers:	1

Quality Control Preservation	Y or N	N/A
1. Trip Blank present / cooler:	[x] [ ]	[ ]
2. Trip Blank listed on COC:	[x] [ ]	[ ]
3. Samples preserved properly:	[x] [ ]	
4. VOCs headspace free:	[x] [ ]	[ ]

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	[x] [ ]
2. Container labeling complete:	[x] [ ]
3. Sample container label / COC agree:	[x] [ ]

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	[x] [ ]
2. All containers accounted for:	[x] [ ]
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear:	[x] [ ]	
2. Bottles received for unspecified tests	[ ] [x]	
3. Sufficient volume recvd for analysis:	[x] [ ]	
4. Compositing instructions clear:	[ ] [ ]	[x]
5. Filtering instructions clear:	[ ] [ ]	[x]

Comments

Accutest Laboratories
V:(508) 481-6200
495 Technology Center West, Bldg One
F: (508) 481-7753
Marlborough, MA 01752
www.accutest.com

MC37884: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC37884

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC37884-1 Collected: 08-APR-15 10:00 By: DCBT Received: 09-APR-15 By: MW23-ROX-040815						
MC37884-1	SW846 8011	17-APR-15 20:21	NK	16-APR-15	FT	V8011SL
MC37884-1	SW846 8270D BY SIM	21-APR-15 09:17	MR	10-APR-15	FC	B8270SIMSL
MC37884-1	SW846 8260C	21-APR-15 18:08	KD			V8260SL+
MC37884-1	SW846 8270D	22-APR-15 12:08	KD	10-APR-15	FC	AB8270SL+
MC37884-2 Collected: 08-APR-15 00:00 By: DCBT Received: 09-APR-15 By: TB-ROX-040815-HCL-BP						
MC37884-2	SW846 8260C	17-APR-15 17:25	KD			V8260SL+
MC37884-3 Collected: 08-APR-15 00:00 By: DCBT Received: 09-APR-15 By: TB-ROX-040815-ST-BP						
MC37884-3	SW846 8011	17-APR-15 21:20	NK	16-APR-15	FT	V8011SL

Accutest Internal Chain of Custody

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Received: 04/09/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC37884-1.2	Walk In Ref #22	Alireza Zeighami	04/10/15 07:20	Retrieve from Storage
MC37884-1.2	Alireza Zeighami		04/15/15 07:13	Depleted
MC37884-1.4	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC37884-1.4	Nicole Estey		04/16/15 23:05	Depleted
MC37884-1.5	VOC Ref #3	Krysten Dufort	04/17/15 14:46	Retrieve from Storage
MC37884-1.5	Krysten Dufort	GCMSV	04/17/15 14:46	Load on Instrument
MC37884-1.5	GCMSV	Krysten Dufort	04/20/15 14:38	Unload from Instrument
MC37884-1.5	Krysten Dufort	VOC Ref #3	04/20/15 14:38	Return to Storage
MC37884-1.6	VOC Ref #3	Todd Bahosh	04/21/15 11:19	Retrieve from Storage
MC37884-1.6	Todd Bahosh	GCMSV	04/21/15 11:20	Load on Instrument
MC37884-1.6	GCMSV	Todd Bahosh	04/22/15 08:43	Unload from Instrument
MC37884-1.6	Todd Bahosh	VOC Ref #3	04/22/15 08:43	Return to Storage
MC37884-2.1	VOC Ref #3	Krysten Dufort	04/17/15 14:46	Retrieve from Storage
MC37884-2.1	Krysten Dufort	GCMSV	04/17/15 14:46	Load on Instrument
MC37884-2.1	GCMSV	Krysten Dufort	04/20/15 14:38	Unload from Instrument
MC37884-2.1	Krysten Dufort	VOC Ref #3	04/20/15 14:38	Return to Storage
MC37884-3.2	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC37884-3.2	Nicole Estey		04/16/15 23:05	Depleted

5.3

New England ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1376-MB	V38187.D	1	04/17/15	KD	n/a	n/a	MSV1376

The QC reported here applies to the following samples; Method: SW846 8260C

MC37884-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	

Method Blank Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1376-MB	V38187.D	1	04/17/15	KD	n/a	n/a	MSV1376

The QC reported here applies to the following samples: Method: SW846 8260C

MC37884-2

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

Method Blank Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1376-MB	V38187.D	1	04/17/15	KD	n/a	n/a	MSV1376

The QC reported here applies to the following samples: Method: SW846 8260C

MC37884-2

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	112%	72-133%
2037-26-5	Toluene-D8	104%	85-114%
460-00-4	4-Bromofluorobenzene	103%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1378-MB	V38241.D	1	04/21/15	KD	n/a	n/a	MSV1378

The QC reported here applies to the following samples: Method: SW846 8260C

MC37884-1

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	

Method Blank Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1378-MB	V38241.D	1	04/21/15	KD	n/a	n/a	MSV1378

6.1.2

The QC reported here applies to the following samples: Method: SW846 8260C

MC37884-1

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

Method Blank Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1378-MB	V38241.D	1	04/21/15	KD	n/a	n/a	MSV1378

6.1.2

The QC reported here applies to the following samples: Method: SW846 8260C

MC37884-1

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	122%	72-133%
2037-26-5	Toluene-D8	106%	85-114%
460-00-4	4-Bromofluorobenzene	97%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1376-BS	V38184.D	1	04/17/15	KD	n/a	n/a	MSV1376

6.2.1

The QC reported here applies to the following samples: Method: SW846 8260C

MC37884-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	61.7	123	14-172
107-02-8	Acrolein	250	290	116	10-168
107-13-1	Acrylonitrile	50	48.4	97	41-158
71-43-2	Benzene	50	45.8	92	68-127
108-86-1	Bromobenzene	50	46.2	92	74-124
74-97-5	Bromochloromethane	50	45.7	91	68-135
75-27-4	Bromodichloromethane	50	53.1	106	72-144
75-25-2	Bromoform	50	44.0	88	59-147
74-83-9	Bromomethane	50	53.3	107	34-175
78-93-3	2-Butanone (MEK)	50	48.9	98	43-147
104-51-8	n-Butylbenzene	50	48.0	96	77-136
135-98-8	sec-Butylbenzene	50	47.7	95	75-134
98-06-6	tert-Butylbenzene	50	45.2	90	74-132
75-15-0	Carbon disulfide	50	48.7	97	34-171
56-23-5	Carbon tetrachloride	50	51.1	102	55-153
108-90-7	Chlorobenzene	50	45.9	92	71-123
75-00-3	Chloroethane	50	50.6	101	58-175
110-75-8	2-Chloroethyl vinyl ether	50	42.9	86	44-169
67-66-3	Chloroform	50	50.3	101	67-136
74-87-3	Chloromethane	50	46.9	94	25-182
95-49-8	o-Chlorotoluene	50	47.7	95	72-130
106-43-4	p-Chlorotoluene	50	47.9	96	73-127
124-48-1	Dibromochloromethane	50	44.3	89	73-139
95-50-1	1,2-Dichlorobenzene	50	44.6	89	77-125
541-73-1	1,3-Dichlorobenzene	50	44.9	90	77-124
106-46-7	1,4-Dichlorobenzene	50	44.0	88	73-128
75-71-8	Dichlorodifluoromethane	50	40.3	81	23-157
75-34-3	1,1-Dichloroethane	50	50.6	101	63-145
107-06-2	1,2-Dichloroethane	50	49.6	99	58-145
75-35-4	1,1-Dichloroethene	50	49.3	99	56-158
156-59-2	cis-1,2-Dichloroethene	50	47.2	94	67-133
156-60-5	trans-1,2-Dichloroethene	50	48.1	96	66-136
78-87-5	1,2-Dichloropropane	50	50.8	102	75-133
142-28-9	1,3-Dichloropropane	50	44.6	89	70-127
594-20-7	2,2-Dichloropropane	50	50.2	100	52-163
563-58-6	1,1-Dichloropropene	50	48.3	97	77-140

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1376-BS	V38184.D	1	04/17/15	KD	n/a	n/a	MSV1376

The QC reported here applies to the following samples: Method: SW846 8260C

MC37884-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-01-5	cis-1,3-Dichloropropene	50	46.0	92	74-141
10061-02-6	trans-1,3-Dichloropropene	50	47.5	95	77-143
123-91-1	1,4-Dioxane	250	194	78	30-182
97-63-2	Ethyl methacrylate	50	47.4	95	64-131
100-41-4	Ethylbenzene	50	48.5	97	71-129
87-68-3	Hexachlorobutadiene	50	41.9	84	64-146
591-78-6	2-Hexanone	50	46.1	92	22-163
98-82-8	Isopropylbenzene	50	48.1	96	72-133
99-87-6	p-Isopropyltoluene	50	47.9	96	77-134
1634-04-4	Methyl Tert Butyl Ether	50	53.0	106	46-151
108-10-1	4-Methyl-2-pentanone (MIBK)	50	46.2	92	47-145
74-95-3	Methylene bromide	50	48.9	98	70-132
75-09-2	Methylene chloride	50	47.7	95	55-146
91-20-3	Naphthalene	50	34.9	70	39-176
103-65-1	n-Propylbenzene	50	50.1	100	74-134
100-42-5	Styrene	50	47.5	95	71-134
630-20-6	1,1,1,2-Tetrachloroethane	50	42.9	86	70-137
79-34-5	1,1,2,2-Tetrachloroethane	50	46.5	93	58-145
127-18-4	Tetrachloroethene	50	43.9	88	63-137
108-88-3	Toluene	50	48.9	98	75-126
87-61-6	1,2,3-Trichlorobenzene	50	37.7	75	27-181
120-82-1	1,2,4-Trichlorobenzene	50	39.2	78	40-176
71-55-6	1,1,1-Trichloroethane	50	48.5	97	68-144
79-00-5	1,1,2-Trichloroethane	50	50.8	102	72-133
79-01-6	Trichloroethene	50	47.1	94	73-126
75-69-4	Trichlorofluoromethane	50	48.8	98	43-152
96-18-4	1,2,3-Trichloropropane	50	36.8	74	58-141
95-63-6	1,2,4-Trimethylbenzene	50	48.9	98	76-129
108-67-8	1,3,5-Trimethylbenzene	50	48.2	96	71-127
108-05-4	Vinyl Acetate	50	57.9	116	10-170
75-01-4	Vinyl chloride	50	44.9	90	36-167
	m,p-Xylene	100	94.1	94	68-130
95-47-6	o-Xylene	50	46.7	93	69-126
1330-20-7	Xylene (total)	150	141	94	67-129

* = Outside of Control Limits.

6.2.1

Blank Spike Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1376-BS	V38184.D	1	04/17/15	KD	n/a	n/a	MSV1376

The QC reported here applies to the following samples: Method: SW846 8260C

MC37884-2

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	105%	72-133%
2037-26-5	Toluene-D8	106%	85-114%
460-00-4	4-Bromofluorobenzene	104%	70-134%

6.2.1

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1378-BS	V38238.D	1	04/21/15	KD	n/a	n/a	MSV1378
MSV1378-BSD	V38239.D	1	04/21/15	KD	n/a	n/a	MSV1378

The QC reported here applies to the following samples: Method: SW846 8260C

MC37884-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	63.7	127	67.3	135	5	14-172/25
107-02-8	Acrolein	250	308	123	312	125	1	10-168/25
107-13-1	Acrylonitrile	50	49.5	99	51.3	103	4	41-158/25
71-43-2	Benzene	50	47.9	96	48.2	96	1	68-127/25
108-86-1	Bromobenzene	50	42.5	85	43.0	86	1	74-124/25
74-97-5	Bromochloromethane	50	50.2	100	51.0	102	2	68-135/25
75-27-4	Bromodichloromethane	50	56.3	113	56.7	113	1	72-144/25
75-25-2	Bromoform	50	44.3	89	44.6	89	1	59-147/25
74-83-9	Bromomethane	50	56.2	112	59.5	119	6	34-175/25
78-93-3	2-Butanone (MEK)	50	49.5	99	51.5	103	4	43-147/25
104-51-8	n-Butylbenzene	50	43.9	88	44.5	89	1	77-136/25
135-98-8	sec-Butylbenzene	50	43.1	86	44.1	88	2	75-134/25
98-06-6	tert-Butylbenzene	50	40.8	82	41.2	82	1	74-132/25
75-15-0	Carbon disulfide	50	49.4	99	51.9	104	5	34-171/25
56-23-5	Carbon tetrachloride	50	54.9	110	55.9	112	2	55-153/25
108-90-7	Chlorobenzene	50	45.1	90	45.5	91	1	71-123/25
75-00-3	Chloroethane	50	54.5	109	59.7	119	9	58-175/25
110-75-8	2-Chloroethyl vinyl ether	50	45.6	91	45.8	92	0	44-169/25
67-66-3	Chloroform	50	54.3	109	54.8	110	1	67-136/25
74-87-3	Chloromethane	50	48.9	98	50.9	102	4	25-182/25
95-49-8	o-Chlorotoluene	50	42.4	85	43.2	86	2	72-130/25
106-43-4	p-Chlorotoluene	50	43.2	86	43.7	87	1	73-127/25
124-48-1	Dibromochloromethane	50	43.5	87	44.0	88	1	73-139/25
95-50-1	1,2-Dichlorobenzene	50	41.1	82	41.9	84	2	77-125/25
541-73-1	1,3-Dichlorobenzene	50	41.9	84	42.4	85	1	77-124/25
106-46-7	1,4-Dichlorobenzene	50	41.3	83	41.5	83	0	73-128/25
75-71-8	Dichlorodifluoromethane	50	36.7	73	39.2	78	7	23-157/25
75-34-3	1,1-Dichloroethane	50	53.4	107	54.8	110	3	63-145/25
107-06-2	1,2-Dichloroethane	50	52.0	104	52.2	104	0	58-145/25
75-35-4	1,1-Dichloroethene	50	51.2	102	53.7	107	5	56-158/25
156-59-2	cis-1,2-Dichloroethene	50	50.9	102	51.6	103	1	67-133/25
156-60-5	trans-1,2-Dichloroethene	50	51.3	103	53.3	107	4	66-136/25
78-87-5	1,2-Dichloropropane	50	53.0	106	54.0	108	2	75-133/25
142-28-9	1,3-Dichloropropane	50	42.4	85	42.7	85	1	70-127/25
594-20-7	2,2-Dichloropropane	50	55.4	111	56.5	113	2	52-163/25
563-58-6	1,1-Dichloropropene	50	51.0	102	50.8	102	0	77-140/25

* = Outside of Control Limits.

6.3.1

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1378-BS	V38238.D	1	04/21/15	KD	n/a	n/a	MSV1378
MSV1378-BSD	V38239.D	1	04/21/15	KD	n/a	n/a	MSV1378

The QC reported here applies to the following samples: Method: SW846 8260C

MC37884-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	50	49.0	98	49.9	100	2	74-141/25
10061-02-6	trans-1,3-Dichloropropene	50	51.1	102	50.9	102	0	77-143/25
123-91-1	1,4-Dioxane	250	218	87	192	77	13	30-182/25
97-63-2	Ethyl methacrylate	50	47.2	94	48.8	98	3	64-131/25
100-41-4	Ethylbenzene	50	47.1	94	47.5	95	1	71-129/25
87-68-3	Hexachlorobutadiene	50	39.7	79	40.2	80	1	64-146/25
591-78-6	2-Hexanone	50	42.1	84	42.0	84	0	22-163/25
98-82-8	Isopropylbenzene	50	42.9	86	44.1	88	3	72-133/25
99-87-6	p-Isopropyltoluene	50	43.5	87	44.5	89	2	77-134/25
1634-04-4	Methyl Tert Butyl Ether	50	55.1	110	58.1	116	5	46-151/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	45.3	91	47.0	94	4	47-145/25
74-95-3	Methylene bromide	50	51.7	103	52.6	105	2	70-132/25
75-09-2	Methylene chloride	50	51.2	102	53.0	106	3	55-146/25
91-20-3	Naphthalene	50	31.6	63	32.7	65	3	39-176/25
103-65-1	n-Propylbenzene	50	45.3	91	45.7	91	1	74-134/25
100-42-5	Styrene	50	46.5	93	46.7	93	0	71-134/25
630-20-6	1,1,1,2-Tetrachloroethane	50	42.8	86	43.2	86	1	70-137/25
79-34-5	1,1,2,2-Tetrachloroethane	50	42.1	84	43.1	86	2	58-145/25
127-18-4	Tetrachloroethene	50	44.1	88	44.9	90	2	63-137/25
108-88-3	Toluene	50	52.1	104	53.2	106	2	75-126/25
87-61-6	1,2,3-Trichlorobenzene	50	34.5	69	36.0	72	4	27-181/25
120-82-1	1,2,4-Trichlorobenzene	50	36.2	72	37.5	75	4	40-176/25
71-55-6	1,1,1-Trichloroethane	50	52.5	105	54.5	109	4	68-144/25
79-00-5	1,1,2-Trichloroethane	50	53.7	107	55.5	111	3	72-133/25
79-01-6	Trichloroethene	50	50.5	101	50.5	101	0	73-126/25
75-69-4	Trichlorofluoromethane	50	56.7	113	58.9	118	4	43-152/25
96-18-4	1,2,3-Trichloropropane	50	36.9	74	37.2	74	1	58-141/25
95-63-6	1,2,4-Trimethylbenzene	50	44.0	88	44.9	90	2	76-129/25
108-67-8	1,3,5-Trimethylbenzene	50	43.3	87	44.2	88	2	71-127/25
108-05-4	Vinyl Acetate	50	58.4	117	60.2	120	3	10-170/25
75-01-4	Vinyl chloride	50	48.5	97	51.3	103	6	36-167/25
	m,p-Xylene	100	92.4	92	93.9	94	2	68-130/25
95-47-6	o-Xylene	50	45.2	90	46.7	93	3	69-126/25
1330-20-7	Xylene (total)	150	138	92	141	94	2	67-129/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1378-BS	V38238.D	1	04/21/15	KD	n/a	n/a	MSV1378
MSV1378-BSD	V38239.D	1	04/21/15	KD	n/a	n/a	MSV1378

The QC reported here applies to the following samples: Method: SW846 8260C

MC37884-1

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	109%	108%	72-133%
2037-26-5	Toluene-D8	108%	108%	85-114%
460-00-4	4-Bromofluorobenzene	100%	99%	70-134%

5.3.1

6

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC37883-1MS	V38208.D	1	04/18/15	KD	n/a	n/a	MSV1376
MC37883-1MSD	V38209.D	1	04/18/15	KD	n/a	n/a	MSV1376
MC37883-1	V38199.D	1	04/17/15	KD	n/a	n/a	MSV1376

The QC reported here applies to the following samples: Method: SW846 8260C

MC37884-2

CAS No.	Compound	MC37883-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		50	33.3	67	50	31.8	64	5	10-135/30
107-02-8	Acrolein	ND		250	281	112	250	268	107	5	10-175/30
107-13-1	Acrylonitrile	ND		50	50.2	100	50	48.4	97	4	37-163/30
71-43-2	Benzene	ND		50	45.5	91	50	47.4	95	4	61-138/30
108-86-1	Bromobenzene	ND		50	44.7	89	50	45.6	91	2	71-126/30
74-97-5	Bromochloromethane	ND		50	46.1	92	50	46.6	93	1	70-136/30
75-27-4	Bromodichloromethane	ND		50	55.2	110	50	56.0	112	1	73-146/30
75-25-2	Bromoform	ND		50	44.0	88	50	43.5	87	1	54-147/30
74-83-9	Bromomethane	ND		50	54.2	108	50	56.3	113	4	20-171/30
78-93-3	2-Butanone (MEK)	ND		50	37.1	74	50	34.7	69	7	33-127/30
104-51-8	n-Butylbenzene	ND		50	45.3	91	50	47.2	94	4	69-138/30
135-98-8	sec-Butylbenzene	ND		50	45.4	91	50	47.5	95	5	71-137/30
98-06-6	tert-Butylbenzene	ND		50	44.6	89	50	46.1	92	3	68-137/30
75-15-0	Carbon disulfide	ND		50	49.6	99	50	51.6	103	4	29-178/30
56-23-5	Carbon tetrachloride	ND		50	51.7	103	50	54.8	110	6	57-155/30
108-90-7	Chlorobenzene	ND		50	45.0	90	50	47.0	94	4	69-126/30
75-00-3	Chloroethane	ND		50	53.2	106	50	62.2	124	16	57-182/30
110-75-8	2-Chloroethyl vinyl ether	ND		50	ND	0* [a]	50	ND	0* [a]	nc	10-200/30
67-66-3	Chloroform	ND		50	52.0	104	50	52.3	105	1	66-142/30
74-87-3	Chloromethane	ND		50	51.7	103	50	49.7	99	4	18-182/30
95-49-8	o-Chlorotoluene	ND		50	46.5	93	50	48.3	97	4	60-145/30
106-43-4	p-Chlorotoluene	ND		50	47.0	94	50	48.5	97	3	64-138/30
124-48-1	Dibromochloromethane	ND		50	43.8	88	50	45.0	90	3	71-138/30
95-50-1	1,2-Dichlorobenzene	ND		50	43.6	87	50	44.1	88	1	75-125/30
541-73-1	1,3-Dichlorobenzene	ND		50	43.8	88	50	44.8	90	2	74-125/30
106-46-7	1,4-Dichlorobenzene	ND		50	43.2	86	50	44.0	88	2	72-128/30
75-71-8	Dichlorodifluoromethane	ND		50	37.6	75	50	42.3	85	12	23-159/30
75-34-3	1,1-Dichloroethane	ND		50	51.8	104	50	52.9	106	2	63-150/30
107-06-2	1,2-Dichloroethane	ND		50	53.2	106	50	53.4	107	0	57-150/30
75-35-4	1,1-Dichloroethene	ND		50	48.4	97	50	50.7	101	5	53-165/30
156-59-2	cis-1,2-Dichloroethene	ND		50	47.0	94	50	47.9	96	2	66-138/30
156-60-5	trans-1,2-Dichloroethene	ND		50	48.8	98	50	50.1	100	3	65-141/30
78-87-5	1,2-Dichloropropane	ND		50	51.5	103	50	53.4	107	4	76-136/30
142-28-9	1,3-Dichloropropane	ND		50	44.5	89	50	45.5	91	2	71-127/30
594-20-7	2,2-Dichloropropane	ND		50	43.2	86	50	45.0	90	4	33-175/30
563-58-6	1,1-Dichloropropene	ND		50	48.2	96	50	49.7	99	3	76-145/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC37883-1MS	V38208.D	1	04/18/15	KD	n/a	n/a	MSV1376
MC37883-1MSD	V38209.D	1	04/18/15	KD	n/a	n/a	MSV1376
MC37883-1	V38199.D	1	04/17/15	KD	n/a	n/a	MSV1376

The QC reported here applies to the following samples: Method: SW846 8260C

MC37884-2

CAS No.	Compound	MC37883-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		50	42.8	86	50	44.5	89	4	75-137/30
10061-02-6	trans-1,3-Dichloropropene	ND		50	46.4	93	50	47.5	95	2	77-139/30
123-91-1	1,4-Dioxane	ND		250	110	44	250	122	49	10	29-167/30
97-63-2	Ethyl methacrylate	ND		50	46.0	92	50	46.9	94	2	60-135/30
100-41-4	Ethylbenzene	ND		50	46.7	93	50	49.9	100	7	61-137/30
87-68-3	Hexachlorobutadiene	ND		50	37.9	76	50	39.7	79	5	59-141/30
591-78-6	2-Hexanone	ND		50	31.9	64	50	32.0	64	0	12-141/30
98-82-8	Isopropylbenzene	ND		50	45.5	91	50	48.2	96	6	64-141/30
99-87-6	p-Isopropyltoluene	ND		50	45.3	91	50	47.4	95	5	73-135/30
1634-04-4	Methyl Tert Butyl Ether	ND		50	50.4	101	50	52.0	104	3	34-160/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	43.7	87	50	44.6	89	2	47-143/30
74-95-3	Methylene bromide	ND		50	51.1	102	50	51.4	103	1	73-132/30
75-09-2	Methylene chloride	ND		50	47.6	95	50	49.6	99	4	52-154/30
91-20-3	Naphthalene	ND		50	34.2	68	50	34.1	68	0	21-185/30
103-65-1	n-Propylbenzene	ND		50	48.1	96	50	49.9	100	4	66-141/30
100-42-5	Styrene	ND		50	46.0	92	50	48.3	97	5	60-142/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		50	42.2	84	50	44.2	88	5	69-138/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	46.8	94	50	46.9	94	0	58-147/30
127-18-4	Tetrachloroethene	ND		50	42.5	85	50	45.2	90	6	60-140/30
108-88-3	Toluene	ND		50	48.7	97	50	51.0	102	5	74-131/30
87-61-6	1,2,3-Trichlorobenzene	ND		50	36.7	73	50	36.9	74	1	12-184/30
120-82-1	1,2,4-Trichlorobenzene	ND		50	37.6	75	50	38.1	76	1	30-175/30
71-55-6	1,1,1-Trichloroethane	ND		50	48.8	98	50	51.3	103	5	67-151/30
79-00-5	1,1,2-Trichloroethane	ND		50	52.6	105	50	53.5	107	2	73-134/30
79-01-6	Trichloroethene	ND		50	47.0	94	50	48.6	97	3	68-133/30
75-69-4	Trichlorofluoromethane	ND		50	53.5	107	50	54.0	108	1	40-159/30
96-18-4	1,2,3-Trichloropropane	ND		50	36.0	72	50	37.1	74	3	54-141/30
95-63-6	1,2,4-Trimethylbenzene	ND		50	46.9	94	50	49.3	99	5	62-142/30
108-67-8	1,3,5-Trimethylbenzene	ND		50	46.3	93	50	48.3	97	4	62-133/30
108-05-4	Vinyl Acetate	ND		50	57.3	115	50	57.7	115	1	10-169/30
75-01-4	Vinyl chloride	ND		50	47.4	95	50	49.1	98	4	29-176/30
	m,p-Xylene	ND		100	91.1	91	100	96.0	96	5	58-139/30
95-47-6	o-Xylene	ND		50	45.0	90	50	47.7	95	6	61-135/30
1330-20-7	Xylene (total)	ND		150	136	91	150	144	96	6	60-136/30

* = Outside of Control Limits.

6.4.1

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC37883-1MS	V38208.D	1	04/18/15	KD	n/a	n/a	MSV1376
MC37883-1MSD	V38209.D	1	04/18/15	KD	n/a	n/a	MSV1376
MC37883-1	V38199.D	1	04/17/15	KD	n/a	n/a	MSV1376

The QC reported here applies to the following samples: Method: SW846 8260C

MC37884-2

CAS No.	Surrogate Recoveries	MS	MSD	MC37883-1	Limits
1868-53-7	Dibromofluoromethane	110%	107%	115%	72-133%
2037-26-5	Toluene-D8	106%	108%	102%	85-114%
460-00-4	4-Bromofluorobenzene	104%	103%	105%	70-134%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

5.4.1

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D69816-1MS	V38247.D	5	04/21/15	KD	n/a	n/a	MSV1378
D69816-1MSD	V38248.D	5	04/21/15	KD	n/a	n/a	MSV1378
D69816-1	V38246.D	1	04/21/15	KD	n/a	n/a	MSV1378

The QC reported here applies to the following samples: Method: SW846 8260C

MC37884-1

CAS No.	Compound	D69816-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	21.7		250	164	57	250	168	59	2	10-135/30
107-02-8	Acrolein	ND		1250	1330	106	1250	1350	108	1	10-175/30
107-13-1	Acrylonitrile	ND		250	224	90	250	224	90	0	37-163/30
71-43-2	Benzene	ND		250	218	87	250	225	90	3	61-138/30
108-86-1	Bromobenzene	ND		250	243	97	250	252	101	4	71-126/30
74-97-5	Bromochloromethane	ND		250	218	87	250	227	91	4	70-136/30
75-27-4	Bromodichloromethane	ND		250	247	99	250	258	103	4	73-146/30
75-25-2	Bromoform	ND		250	230	92	250	231	92	0	54-147/30
74-83-9	Bromomethane	ND		250	249	100	250	253	101	2	20-171/30
78-93-3	2-Butanone (MEK)	ND		250	178	71	250	186	74	4	33-127/30
104-51-8	n-Butylbenzene	ND		250	249	100	250	255	102	2	69-138/30
135-98-8	sec-Butylbenzene	ND		250	245	98	250	259	104	6	71-137/30
98-06-6	tert-Butylbenzene	ND		250	227	91	250	244	98	7	68-137/30
75-15-0	Carbon disulfide	ND		250	225	90	250	231	92	3	29-178/30
56-23-5	Carbon tetrachloride	ND		250	240	96	250	249	100	4	57-155/30
108-90-7	Chlorobenzene	ND		250	242	97	250	247	99	2	69-126/30
75-00-3	Chloroethane	ND		250	254	102	250	257	103	1	57-182/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	ND	0* [a]	250	ND	0* [a]	nc	10-200/30
67-66-3	Chloroform	0.84	J	250	230	92	250	239	95	4	66-142/30
74-87-3	Chloromethane	ND		250	211	84	250	210	84	0	18-182/30
95-49-8	o-Chlorotoluene	ND		250	242	97	250	253	101	4	60-145/30
106-43-4	p-Chlorotoluene	ND		250	242	97	250	254	102	5	64-138/30
124-48-1	Dibromochloromethane	ND		250	229	92	250	230	92	0	71-138/30
95-50-1	1,2-Dichlorobenzene	ND		250	234	94	250	242	97	3	75-125/30
541-73-1	1,3-Dichlorobenzene	ND		250	239	96	250	246	98	3	74-125/30
106-46-7	1,4-Dichlorobenzene	ND		250	233	93	250	243	97	4	72-128/30
75-71-8	Dichlorodifluoromethane	ND		250	162	65	250	154	62	5	23-159/30
75-34-3	1,1-Dichloroethane	ND		250	235	94	250	243	97	3	63-150/30
107-06-2	1,2-Dichloroethane	ND		250	229	92	250	237	95	3	57-150/30
75-35-4	1,1-Dichloroethene	ND		250	235	94	250	243	97	3	53-165/30
156-59-2	cis-1,2-Dichloroethene	ND		250	222	89	250	233	93	5	66-138/30
156-60-5	trans-1,2-Dichloroethene	ND		250	229	92	250	237	95	3	65-141/30
78-87-5	1,2-Dichloropropane	ND		250	242	97	250	250	100	3	76-136/30
142-28-9	1,3-Dichloropropane	ND		250	230	92	250	233	93	1	71-127/30
594-20-7	2,2-Dichloropropane	ND		250	239	96	250	246	98	3	33-175/30
563-58-6	1,1-Dichloropropene	ND		250	225	90	250	238	95	6	76-145/30

* = Outside of Control Limits.

6.4.2

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D69816-1MS	V38247.D	5	04/21/15	KD	n/a	n/a	MSV1378
D69816-1MSD	V38248.D	5	04/21/15	KD	n/a	n/a	MSV1378
D69816-1	V38246.D	1	04/21/15	KD	n/a	n/a	MSV1378

The QC reported here applies to the following samples: Method: SW846 8260C

MC37884-1

CAS No.	Compound	D69816-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		250	216	86	250	225	90	4	75-137/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	223	89	250	235	94	5	77-139/30
123-91-1	1,4-Dioxane	ND		1250	1040	83	1250	1030	82	1	29-167/30
97-63-2	Ethyl methacrylate	ND		250	226	90	250	237	95	5	60-135/30
100-41-4	Ethylbenzene	ND		250	254	102	250	257	103	1	61-137/30
87-68-3	Hexachlorobutadiene	ND		250	218	87	250	232	93	6	59-141/30
591-78-6	2-Hexanone	ND		250	161	64	250	167	67	4	12-141/30
98-82-8	Isopropylbenzene	ND		250	248	99	250	262	105	5	64-141/30
99-87-6	p-Isopropyltoluene	ND		250	249	100	250	260	104	4	73-135/30
1634-04-4	Methyl Tert Butyl Ether	ND		250	250	100	250	258	103	3	34-160/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	212	85	250	220	88	4	47-143/30
74-95-3	Methylene bromide	ND		250	232	93	250	238	95	3	73-132/30
75-09-2	Methylene chloride	ND		250	229	92	250	233	93	2	52-154/30
91-20-3	Naphthalene	ND		250	180	72	250	193	77	7	21-185/30
103-65-1	n-Propylbenzene	ND		250	256	102	250	269	108	5	66-141/30
100-42-5	Styrene	ND		250	250	100	250	252	101	1	60-142/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	228	91	250	231	92	1	69-138/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	245	98	250	254	102	4	58-147/30
127-18-4	Tetrachloroethene	0.26	J	250	237	95	250	246	98	4	60-140/30
108-88-3	Toluene	0.66	J	250	238	95	250	245	98	3	74-131/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	194	78	250	211	84	8	12-184/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	208	83	250	220	88	6	30-175/30
71-55-6	1,1,1-Trichloroethane	ND		250	228	91	250	235	94	3	67-151/30
79-00-5	1,1,2-Trichloroethane	ND		250	246	98	250	256	102	4	73-134/30
79-01-6	Trichloroethene	ND		250	226	90	250	235	94	4	68-133/30
75-69-4	Trichlorofluoromethane	ND		250	236	94	250	241	96	2	40-159/30
96-18-4	1,2,3-Trichloropropane	ND		250	215	86	250	221	88	3	54-141/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	251	100	250	262	105	4	62-142/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	250	100	250	260	104	4	62-133/30
108-05-4	Vinyl Acetate	ND		250	257	103	250	265	106	3	10-169/30
75-01-4	Vinyl chloride	ND		250	212	85	250	215	86	1	29-176/30
	m,p-Xylene	ND		500	502	100	500	505	101	1	58-139/30
95-47-6	o-Xylene	ND		250	252	101	250	252	101	0	61-135/30
1330-20-7	Xylene (total)	0.62	J	750	754	100	750	758	101	1	60-136/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D69816-1MS	V38247.D	5	04/21/15	KD	n/a	n/a	MSV1378
D69816-1MSD	V38248.D	5	04/21/15	KD	n/a	n/a	MSV1378
D69816-1	V38246.D	1	04/21/15	KD	n/a	n/a	MSV1378

The QC reported here applies to the following samples: Method: SW846 8260C

MC37884-1

CAS No.	Surrogate Recoveries	MS	MSD	D69816-1	Limits
1868-53-7	Dibromofluoromethane	101%	101%	101%	72-133%
2037-26-5	Toluene-D8	103%	104%	100%	85-114%
460-00-4	4-Bromofluorobenzene	100%	102%	100%	70-134%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

6.4.2

* = Outside of Control Limits.

Volatile Internal Standard Area Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSV1376-CC1332	Injection Date:	04/17/15
Lab File ID:	V38184.D	Injection Time:	12:41
Instrument ID:	GCMSV	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	465519	6.54	737950	7.73	395536	11.08	428452	13.29	89641	3.51
Upper Limit [a]	931038	7.04	1475900	8.23	791072	11.58	856904	13.79	179282	4.01
Lower Limit [b]	232760	6.04	368975	7.23	197768	10.58	214226	12.79	44821	3.01
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV1376-BS	465519	6.54	737950	7.73	395536	11.08	428452	13.29	89641	3.51
MSV1376-MB	392941	6.55	663340	7.73	361669	11.08	380407	13.29	76444	3.51
ZZZZZZ	381048	6.54	662579	7.73	356209	11.08	370350	13.29	70142	3.50
ZZZZZZ	374070	6.55	651139	7.73	353606	11.08	369210	13.29	70463	3.50
ZZZZZZ	359061	6.55	621987	7.73	341756	11.08	358992	13.29	63522	3.51
ZZZZZZ	349244	6.55	614216	7.74	330918	11.08	347297	13.29	59086	3.51
ZZZZZZ	338648	6.55	589784	7.73	321265	11.08	331749	13.29	57458	3.50
ZZZZZZ	347750	6.55	610369	7.74	334891	11.08	350741	13.29	52802	3.51
MC37884-2	329734	6.55	581629	7.74	321744	11.08	337722	13.29	51312	3.51
ZZZZZZ	407892	6.54	664027	7.73	361941	11.08	390574	13.29	79023	3.50
ZZZZZZ	436818	6.54	702582	7.73	390686	11.08	404541	13.29	75017	3.50
ZZZZZZ	446028	6.55	720215	7.74	392492	11.08	414380	13.29	81099	3.51
ZZZZZZ	416253	6.55	703068	7.73	377670	11.08	402877	13.29	72416	3.51
MC37883-1	405403	6.55	694320	7.73	368858	11.08	379678	13.29	73832	3.50
ZZZZZZ	403545	6.55	697223	7.73	384984	11.08	403717	13.29	87625	3.51
ZZZZZZ	371210	6.54	645846	7.73	353316	11.08	361899	13.29	78130	3.50
ZZZZZZ	342107	6.55	600470	7.73	332673	11.08	348185	13.29	67611	3.51
ZZZZZZ	363485	6.54	630535	7.73	348764	11.08	381471	13.29	77981	3.50
ZZZZZZ	367941	6.55	672380	7.73	345510	11.08	347066	13.29	57967	3.51
MC37883-1MS	419972	6.54	677377	7.73	370087	11.08	402964	13.29	63389	3.50
MC37883-1MSD	413682	6.54	658709	7.73	360923	11.08	399353	13.29	63155	3.51

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

6.5.1

Volatile Internal Standard Area Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSV1378-CC1332	Injection Date:	04/21/15
Lab File ID:	V38238.D	Injection Time:	10:01
Instrument ID:	GCMSV	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	415194	6.57	681273	7.75	402063	11.09	474500	13.30	88636	3.53
Upper Limit [a]	830388	7.07	1362546	8.25	804126	11.59	949000	13.80	177272	4.03
Lower Limit [b]	207597	6.07	340637	7.25	201032	10.59	237250	12.80	44318	3.03
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV1378-BS	415194	6.57	681273	7.75	402063	11.09	474500	13.30	88636	3.53
MSV1378-BSD	414466	6.57	686625	7.76	407247	11.09	484673	13.30	92445	3.53
MSV1378-MB	241298	6.57	426771	7.76	263868	11.09	300181	13.30	53612	3.53
ZZZZZZ	505248	6.57	826757	7.75	433528	11.09	460128	13.30	80524	3.52
D69816-1	501356	6.57	811285	7.75	402435	11.09	429128	13.30	76105	3.52
D69816-1MS	517746	6.57	823882	7.75	410038	11.09	461126	13.30	85744	3.53
D69816-1MSD	524389	6.57	824496	7.75	416130	11.09	447204	13.30	90382	3.53
ZZZZZZ	495984	6.57	814711	7.75	393674	11.09	418333	13.30	81997	3.52
ZZZZZZ	456487	6.57	757892	7.75	372427	11.09	400093	13.30	82020	3.53
ZZZZZZ	424545	6.57	702539	7.75	353127	11.09	375453	13.30	75105	3.53
ZZZZZZ	417465	6.57	706591	7.75	353652	11.09	368036	13.30	70576	3.52
ZZZZZZ	406814	6.57	691545	7.75	353190	11.09	362700	13.30	71735	3.52
ZZZZZZ	370107	6.57	629082	7.75	314695	11.09	336116	13.30	63290	3.53
MC37884-1	382571	6.57	657272	7.75	339995	11.09	349043	13.30	69052	3.52
ZZZZZZ	386715	6.57	634618	7.75	324011	11.09	338137	13.30	71399	3.52
ZZZZZZ	370698	6.57	626872	7.75	328399	11.09	344594	13.30	64258	3.53
ZZZZZZ	370397	6.56	636239	7.75	328951	11.09	370519	13.30	61563	3.52
ZZZZZZ	376120	6.56	632170	7.75	327318	11.09	329992	13.30	63049	3.51
ZZZZZZ	357949	6.57	614551	7.75	320759	11.09	334497	13.30	62333	3.52
ZZZZZZ	493692	6.57	823423	7.75	427415	11.09	553932	13.30	288468[c]	3.53

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Outside control limits. Target analytes not associated with this internal standard.

6.5.2

Volatile Surrogate Recovery Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8260C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC37884-1	V38255.D	114	104	107
MC37884-2	V38194.D	121	105	99
D69816-1MS	V38247.D	101	103	100
D69816-1MSD	V38248.D	101	104	102
MC37883-1MS	V38208.D	110	106	104
MC37883-1MSD	V38209.D	107	108	103
MSV1376-BS	V38184.D	105	106	104
MSV1376-MB	V38187.D	112	104	103
MSV1378-BS	V38238.D	109	108	100
MSV1378-BSD	V38239.D	108	108	99
MSV1378-MB	V38241.D	122	106	97

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	72-133%
S2 = Toluene-D8	85-114%
S3 = 4-Bromofluorobenzene	70-134%

6.6.1

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42630-MB	W21559.D	1	04/21/15	KD	04/10/15	OP42630	MSW922

The QC reported here applies to the following samples: Method: SW846 8270D

MC37884-1

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.5	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.29	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.51	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.47	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.34	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.59	ug/l	
95-48-7	2-Methylphenol	ND	10	0.30	ug/l	
	3&4-Methylphenol	ND	10	0.44	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.47	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.35	ug/l	
108-95-2	Phenol	ND	5.0	0.32	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.45	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.45	ug/l	
62-53-3	Aniline	ND	10	0.46	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.25	ug/l	
85-68-7	Butyl benzyl phthalate	0.42	5.0	0.24	ug/l	J
100-51-6	Benzyl Alcohol	ND	10	0.32	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.34	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.49	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.42	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.42	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.26	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.37	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.38	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.53	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	0.28	5.0	0.27	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.0	0.29	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.27	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.24	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.32	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.24	ug/l	

Method Blank Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42630-MB	W21559.D	1	04/21/15	KD	04/10/15	OP42630	MSW922

The QC reported here applies to the following samples: Method: SW846 8270D

MC37884-1

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.28	ug/l	
78-59-1	Isophorone	ND	5.0	0.47	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.36	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.40	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.51	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.48	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.25	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.25	ug/l	
110-86-1	Pyridine	ND	10	0.36	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	33%	10-79%
4165-62-2	Phenol-d5	26%	10-72%
118-79-6	2,4,6-Tribromophenol	68%	35-138%
4165-60-0	Nitrobenzene-d5	51%	30-116%
321-60-8	2-Fluorobiphenyl	47%	35-107%
1718-51-0	Terphenyl-d14	75%	43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

Method Blank Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42631-MB	I95235.D	1	04/20/15	MR	04/10/15	OP42631	MSI3562

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC37884-1

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.0075	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.0084	ug/l	
120-12-7	Anthracene	ND	0.10	0.0098	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.015	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.019	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.013	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.0074	ug/l	
86-73-7	Fluorene	ND	0.10	0.015	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.020	ug/l	
90-12-0	1-Methylnaphthalene	0.022	2.0	0.012	ug/l	J
91-57-6	2-Methylnaphthalene	0.023	2.0	0.011	ug/l	J
85-01-8	Phenanthrene	ND	0.050	0.011	ug/l	
129-00-0	Pyrene	ND	0.10	0.0085	ug/l	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	50%	26-121%
321-60-8	2-Fluorobiphenyl	44%	28-107%
1718-51-0	Terphenyl-d14	78%	29-129%

7.1.2

7

Blank Spike Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42630-BS	W21560.D	1	04/21/15	KD	04/10/15	OP42630	MSW922

The QC reported here applies to the following samples: Method: SW846 8270D

MC37884-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	50	20.2	40	10-73
95-57-8	2-Chlorophenol	50	41.0	82	47-106
59-50-7	4-Chloro-3-methyl phenol	50	45.5	91	50-111
120-83-2	2,4-Dichlorophenol	50	45.6	91	53-114
105-67-9	2,4-Dimethylphenol	50	39.7	79	23-110
51-28-5	2,4-Dinitrophenol	50	35.8	72	10-156
534-52-1	4,6-Dinitro-o-cresol	50	43.1	86	17-159
95-48-7	2-Methylphenol	50	37.4	75	40-92
	3&4-Methylphenol	100	75.2	75	38-86
88-75-5	2-Nitrophenol	50	47.8	96	53-115
100-02-7	4-Nitrophenol	50	24.1	48	10-83
87-86-5	Pentachlorophenol	50	41.5	83	41-122
108-95-2	Phenol	50	23.2	46	15-55
95-95-4	2,4,5-Trichlorophenol	50	48.1	96	52-120
88-06-2	2,4,6-Trichlorophenol	50	48.9	98	53-119
62-53-3	Aniline	50	31.6	63	26-87
101-55-3	4-Bromophenyl phenyl ether	50	50.5	101	65-127
85-68-7	Butyl benzyl phthalate	50	49.9	100	68-128
100-51-6	Benzyl Alcohol	50	42.5	85	13-108
91-58-7	2-Chloronaphthalene	50	48.0	96	58-120
106-47-8	4-Chloroaniline	50	42.5	85	48-106
111-91-1	bis(2-Chloroethoxy)methane	50	46.1	92	42-118
111-44-4	bis(2-Chloroethyl)ether	50	43.3	87	35-123
108-60-1	bis(2-Chloroisopropyl)ether	50	45.9	92	37-160
7005-72-3	4-Chlorophenyl phenyl ether	50	49.1	98	57-121
122-66-7	1,2-Diphenylhydrazine	50	49.6	99	54-128
121-14-2	2,4-Dinitrotoluene	50	52.5	105	64-127
606-20-2	2,6-Dinitrotoluene	50	49.5	99	55-135
91-94-1	3,3'-Dichlorobenzidine	50	45.7	91	49-141
132-64-9	Dibenzofuran	50	46.9	94	60-107
84-74-2	Di-n-butyl phthalate	50	47.9	96	68-117
117-84-0	Di-n-octyl phthalate	50	48.9	98	60-139
84-66-2	Diethyl phthalate	50	49.2	98	51-127
131-11-3	Dimethyl phthalate	50	49.3	99	22-147
117-81-7	bis(2-Ethylhexyl)phthalate	50	52.0	104	69-133
118-74-1	Hexachlorobenzene	50	50.5	101	62-131

* = Outside of Control Limits.

7.2.1

7

Blank Spike Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42630-BS	W21560.D	1	04/21/15	KD	04/10/15	OP42630	MSW922

The QC reported here applies to the following samples: Method: SW846 8270D

MC37884-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	5.2	10	10-74
67-72-1	Hexachloroethane	50	31.5	63	15-104
78-59-1	Isophorone	50	41.0	82	44-110
88-74-4	2-Nitroaniline	50	52.2	104	63-123
99-09-2	3-Nitroaniline	50	44.5	89	63-112
100-01-6	4-Nitroaniline	50	47.3	95	58-114
98-95-3	Nitrobenzene	50	44.6	89	37-130
62-75-9	n-Nitrosodimethylamine	50	36.7	73	18-80
621-64-7	N-Nitroso-di-n-propylamine	50	43.7	87	44-128
86-30-6	N-Nitrosodiphenylamine	50	44.0	88	62-107
110-86-1	Pyridine	50	15.7	31	10-77

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	65%	10-79%
4165-62-2	Phenol-d5	49%	10-72%
118-79-6	2,4,6-Tribromophenol	108%	35-138%
4165-60-0	Nitrobenzene-d5	95%	30-116%
321-60-8	2-Fluorobiphenyl	93%	35-107%
1718-51-0	Terphenyl-d14	104%	43-135%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42631-BS	I95236.D	1	04/20/15	MR	04/10/15	OP42631	MSI3562
OP42631-BSD	I95237.D	1	04/20/15	MR	04/10/15	OP42631	MSI3562

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC37884-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	50	41.9	84	39.4	79	6	45-116/30
208-96-8	Acenaphthylene	50	39.1	78	36.9	74	6	34-110/30
120-12-7	Anthracene	50	44.0	88	41.6	83	6	50-117/30
56-55-3	Benzo(a)anthracene	50	50.2	100	49.0	98	2	55-139/30
50-32-8	Benzo(a)pyrene	50	52.4	105	51.6	103	2	48-131/30
205-99-2	Benzo(b)fluoranthene	50	48.5	97	48.1	96	1	49-141/30
191-24-2	Benzo(g,h,i)perylene	50	50.0	100	50.2	100	0	60-130/30
207-08-9	Benzo(k)fluoranthene	50	48.1	96	45.7	91	5	49-133/30
218-01-9	Chrysene	50	45.6	91	44.4	89	3	52-128/30
53-70-3	Dibenzo(a,h)anthracene	50	50.2	100	50.0	100	0	60-136/30
206-44-0	Fluoranthene	50	46.7	93	45.3	91	3	46-132/30
86-73-7	Fluorene	50	42.5	85	40.5	81	5	53-120/30
193-39-5	Indeno(1,2,3-cd)pyrene	50	51.0	102	50.8	102	0	57-134/30
90-12-0	1-Methylnaphthalene	50	39.5	79	36.8	74	7	41-105/30
91-57-6	2-Methylnaphthalene	50	39.5	79	37.4	75	5	36-111/30
85-01-8	Phenanthrene	50	42.2	84	40.2	80	5	50-120/30
129-00-0	Pyrene	50	46.0	92	44.9	90	2	48-127/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
4165-60-0	Nitrobenzene-d5	94%	85%	26-121%
321-60-8	2-Fluorobiphenyl	84%	78%	28-107%
1718-51-0	Terphenyl-d14	111%	104%	29-129%

* = Outside of Control Limits.

7.3.1

7

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42630-MS	W21561.D	1	04/21/15	KD	04/10/15	OP42630	MSW922
OP42630-MSD	W21562.D	1	04/21/15	KD	04/10/15	OP42630	MSW922
MC37883-1	W21563.D	1	04/21/15	KD	04/10/15	OP42630	MSW922

The QC reported here applies to the following samples: Method: SW846 8270D

MC37884-1

CAS No.	Compound	MC37883-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		51	17.6	34	51.5	18.1	35	3	10-76/20
95-57-8	2-Chlorophenol	ND		51	40.9	80	51.5	41.7	81	2	37-112/20
59-50-7	4-Chloro-3-methyl phenol	ND		51	44.6	87	51.5	45.9	89	3	43-115/20
120-83-2	2,4-Dichlorophenol	ND		51	45.3	89	51.5	46.8	91	3	47-119/20
105-67-9	2,4-Dimethylphenol	ND		51	41.7	82	51.5	40.5	79	3	15-118/20
51-28-5	2,4-Dinitrophenol	ND		51	37.7	74	51.5	41.1	80	9	10-165/20
534-52-1	4,6-Dinitro-o-cresol	ND		51	45.7	90	51.5	48.2	94	5	13-165/20
95-48-7	2-Methylphenol	ND		51	35.7	70	51.5	36.5	71	2	30-99/20
	3&4-Methylphenol	ND		102	71.0	70	103	72.5	70	2	32-89/20
88-75-5	2-Nitrophenol	ND		51	47.4	93	51.5	49.0	95	3	44-120/20
100-02-7	4-Nitrophenol	ND		51	21.1	41	51.5	21.0	41	0	10-93/20
87-86-5	Pentachlorophenol	ND		51	43.2	85	51.5	45.1	87	4	33-131/20
108-95-2	Phenol	ND		51	19.9	39	51.5	20.2	39	1	15-53/20
95-95-4	2,4,5-Trichlorophenol	ND		51	47.6	93	51.5	49.7	96	4	45-126/20
88-06-2	2,4,6-Trichlorophenol	ND		51	48.6	95	51.5	50.5	98	4	45-124/20
62-53-3	Aniline	ND		51	31.2	61	51.5	29.1	56	7	18-91/20
101-55-3	4-Bromophenyl phenyl ether	ND		51	49.6	97	51.5	51.4	100	4	57-131/20
85-68-7	Butyl benzyl phthalate	ND		51	50.0	98	51.5	51.9	101	4	58-135/20
100-51-6	Benzyl Alcohol	ND		51	39.9	78	51.5	40.7	79	2	10-109/20
91-58-7	2-Chloronaphthalene	ND		51	46.6	91	51.5	49.0	95	5	51-123/20
106-47-8	4-Chloroaniline	ND		51	39.7	78	51.5	38.7	75	3	39-109/20
111-91-1	bis(2-Chloroethoxy)methane	ND		51	44.2	87	51.5	46.2	90	4	36-120/20
111-44-4	bis(2-Chloroethyl)ether	ND		51	41.7	82	51.5	42.9	83	3	30-124/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		51	44.5	87	51.5	46.3	90	4	25-171/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		51	48.0	94	51.5	49.6	96	3	51-122/20
122-66-7	1,2-Diphenylhydrazine	ND		51	48.5	95	51.5	50.6	98	4	47-130/20
121-14-2	2,4-Dinitrotoluene	ND		51	51.0	100	51.5	53.8	104	5	57-131/20
606-20-2	2,6-Dinitrotoluene	ND		51	48.5	95	51.5	50.3	98	4	52-135/20
91-94-1	3,3'-Dichlorobenzidine	ND		51	46.6	91	51.5	44.7	87	4	25-157/20
132-64-9	Dibenzofuran	ND		51	45.6	89	51.5	47.3	92	4	54-110/20
84-74-2	Di-n-butyl phthalate	ND		51	48.3	95	51.5	50.0	97	3	60-122/20
117-84-0	Di-n-octyl phthalate	ND		51	49.3	97	51.5	50.8	99	3	54-142/20
84-66-2	Diethyl phthalate	ND		51	48.3	95	51.5	50.1	97	4	40-132/20
131-11-3	Dimethyl phthalate	ND		51	48.2	94	51.5	50.1	97	4	13-149/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		51	52.5	103	51.5	54.3	105	3	59-139/20
118-74-1	Hexachlorobenzene	ND		51	49.3	97	51.5	51.7	100	5	56-135/20

* = Outside of Control Limits.

7.4.1

7

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42630-MS	W21561.D	1	04/21/15	KD	04/10/15	OP42630	MSW922
OP42630-MSD	W21562.D	1	04/21/15	KD	04/10/15	OP42630	MSW922
MC37883-1	W21563.D	1	04/21/15	KD	04/10/15	OP42630	MSW922

The QC reported here applies to the following samples: Method: SW846 8270D

MC37884-1

CAS No.	Compound	MC37883-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		51	7.1	14	51.5	8.1	16	13	10-73/20
67-72-1	Hexachloroethane	ND		51	29.2	57	51.5	32.0	62	9	13-103/20
78-59-1	Isophorone	ND		51	38.9	76	51.5	40.5	79	4	41-110/20
88-74-4	2-Nitroaniline	ND		51	50.3	99	51.5	52.2	101	4	57-126/20
99-09-2	3-Nitroaniline	ND		51	45.5	89	51.5	46.3	90	2	53-118/20
100-01-6	4-Nitroaniline	ND		51	47.1	92	51.5	47.1	91	0	50-119/20
98-95-3	Nitrobenzene	ND		51	42.8	84	51.5	44.8	87	5	35-127/20
62-75-9	n-Nitrosodimethylamine	ND		51	32.8	64	51.5	34.2	66	4	11-82/20
621-64-7	N-Nitroso-di-n-propylamine	ND		51	42.5	83	51.5	43.5	84	2	39-129/20
86-30-6	N-Nitrosodiphenylamine	ND		51	43.4	85	51.5	45.7	89	5	55-112/20
110-86-1	Pyridine	ND		51	18.3	36	51.5	15.8	31	15	15-71/20

CAS No.	Surrogate Recoveries	MS	MSD	MC37883-1	Limits
367-12-4	2-Fluorophenol	54%	57%	28%	10-79%
4165-62-2	Phenol-d5	38%	40%	20%	10-72%
118-79-6	2,4,6-Tribromophenol	103%	107%	62%	35-138%
4165-60-0	Nitrobenzene-d5	88%	92%	50%	30-116%
321-60-8	2-Fluorobiphenyl	85%	90%	48%	35-107%
1718-51-0	Terphenyl-d14	102%	107%	72%	43-135%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42631-MS	I95238.D	1	04/20/15	MR	04/10/15	OP42631	MSI3562
OP42631-MSD	I95239.D	1	04/20/15	MR	04/10/15	OP42631	MSI3562
MC37883-1	I95240.D	1	04/20/15	MR	04/10/15	OP42631	MSI3562

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC37884-1

7.4.2

7

CAS No.	Compound	MC37883-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		51	40.8	80	51.5	42.1	82	3	36-124/20
208-96-8	Acenaphthylene	ND		51	38.4	75	51.5	39.6	77	3	25-116/20
120-12-7	Anthracene	ND		51	42.7	84	51.5	44.0	85	3	42-122/20
56-55-3	Benzo(a)anthracene	ND		51	49.9	98	51.5	52.1	101	4	45-145/20
50-32-8	Benzo(a)pyrene	ND		51	53.1	104	51.5	55.1	107	4	40-136/20
205-99-2	Benzo(b)fluoranthene	ND		51	50.5	99	51.5	50.2	97	1	41-148/20
191-24-2	Benzo(g,h,i)perylene	ND		51	52.1	102	51.5	50.7	98	3	48-140/20
207-08-9	Benzo(k)fluoranthene	ND		51	44.8	88	51.5	50.7	98	12	45-131/20
218-01-9	Chrysene	ND		51	45.7	90	51.5	47.1	91	3	41-135/20
53-70-3	Dibenzo(a,h)anthracene	ND		51	51.6	101	51.5	51.4	100	0	49-144/20
206-44-0	Fluoranthene	ND		51	46.9	92	51.5	48.3	94	3	38-136/20
86-73-7	Fluorene	ND		51	42.1	83	51.5	43.7	85	4	43-127/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		51	52.4	103	51.5	51.7	100	1	45-142/20
90-12-0	1-Methylnaphthalene	ND		51	38.7	76	51.5	41.0	80	6	29-116/20
91-57-6	2-Methylnaphthalene	ND		51	39.2	77	51.5	41.2	80	5	27-117/20
85-01-8	Phenanthrene	ND		51	41.6	82	51.5	42.6	83	2	41-126/20
129-00-0	Pyrene	ND		51	46.5	91	51.5	47.4	92	2	41-131/20

CAS No.	Surrogate Recoveries	MS	MSD	MC37883-1	Limits
4165-60-0	Nitrobenzene-d5	86%	90%	50%	26-121%
321-60-8	2-Fluorobiphenyl	79%	82%	45%	28-107%
1718-51-0	Terphenyl-d14	106%	111%	74%	29-129%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3562-CC3561	Injection Date:	04/20/15
Lab File ID:	I95214.D	Injection Time:	12:06
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	241017	3.57	504755	4.60	286313	6.12	501516	7.43	355983	10.20	903409	11.62
Upper Limit [a]	482034	4.07	1009510	5.10	572626	6.62	1003032	7.93	711966	10.70	1806818	12.12
Lower Limit [b]	120509	3.07	252378	4.10	143157	5.62	250758	6.93	177992	9.70	451705	11.12
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP42721-MB	282239	3.57	596782	4.60	335689	6.12	578905	7.43	411963	10.20	1046484	11.62
OP42721-BS	281953	3.57	597005	4.61	329133	6.12	583372	7.44	412233	10.20	1009676	11.63
OP42721-BSD	266703	3.57	573245	4.61	318029	6.12	569020	7.44	401385	10.21	983101	11.63
ZZZZZZ	275946	3.57	579038	4.60	325910	6.12	566073	7.43	396273	10.20	997311	11.62
ZZZZZZ	267096	3.57	548399	4.60	307382	6.12	519483	7.43	372589	10.21	907129	11.63
ZZZZZZ	251095	3.57	523882	4.61	292015	6.12	513300	7.44	372703	10.21	933829	11.64
ZZZZZZ	280467	3.57	590785	4.61	326933	6.12	558884	7.43	407770	10.20	1016335	11.63
ZZZZZZ	274009	3.57	571023	4.61	313103	6.12	541036	7.43	390971	10.20	986041	11.63
ZZZZZZ	265494	3.57	561388	4.61	319038	6.12	545488	7.43	385114	10.20	969895	11.62
ZZZZZZ	263381	3.57	543165	4.60	303476	6.12	522659	7.43	377135	10.20	944284	11.63
ZZZZZZ	276739	3.57	576326	4.61	320949	6.12	549722	7.43	386220	10.20	968590	11.63
ZZZZZZ	259014	3.57	535352	4.61	296808	6.12	508596	7.43	364448	10.20	914539	11.63
ZZZZZZ	285435	3.57	584684	4.61	325354	6.12	552248	7.44	396786	10.20	955301	11.63
ZZZZZZ	275242	3.57	581689	4.61	329541	6.12	559382	7.43	393728	10.20	925096	11.63
ZZZZZZ	267120	3.57	559566	4.61	310993	6.12	526850	7.44	375490	10.21	878080	11.64
ZZZZZZ	257151	3.57	542951	4.61	304211	6.12	521253	7.43	362352	10.20	887799	11.63
ZZZZZZ	252659	3.57	524803	4.61	296322	6.12	511077	7.43	368591	10.20	920204	11.63
ZZZZZZ	256446	3.57	537823	4.61	302282	6.12	517943	7.43	369730	10.20	925667	11.63
ZZZZZZ	256799	3.57	516846	4.61	295437	6.12	481369	7.44	343811	10.21	831440	11.64
OP42695-MB	391215	3.57	880144	4.61	526526	6.12	925610	7.44	703028	10.21	1678034	11.64
OP42631-MB	281416	3.57	595183	4.61	341482	6.12	583841	7.43	416470	10.20	991495	11.63
OP42631-BS	273147	3.57	590866	4.61	332062	6.12	589286	7.44	416659	10.21	966431	11.63
OP42631-BSD	272780	3.57	590140	4.61	329669	6.12	589790	7.44	413758	10.21	970216	11.63
OP42631-MS	249370	3.57	539266	4.61	301494	6.12	534425	7.44	376096	10.21	891232	11.63
OP42631-MSD	258060	3.57	567209	4.61	322945	6.12	581129	7.44	415413	10.21	944623	11.63
MC37883-1	273060	3.57	582727	4.61	333378	6.12	578367	7.43	409809	10.20	998498	11.63
ZZZZZZ	272844	3.57	585065	4.61	326634	6.12	576903	7.43	391910	10.20	928470	11.63
ZZZZZZ	281695	3.57	600635	4.61	341970	6.12	584961	7.43	405306	10.20	950095	11.63

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

7.5.1

Semivolatile Internal Standard Area Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3562-CC3561	Injection Date:	04/20/15
Lab File ID:	I95214.D	Injection Time:	12:06
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3563-CC3561	Injection Date:	04/21/15
Lab File ID:	I95245.D	Injection Time:	08:29
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	243799	3.57	513765	4.60	296822	6.12	514449	7.43	379947	10.20	955932	11.63
Upper Limit [a]	487598	4.07	1027530	5.10	593644	6.62	1028898	7.93	759894	10.70	1911864	12.13
Lower Limit [b]	121900	3.07	256883	4.10	148411	5.62	257225	6.93	189974	9.70	477966	11.13
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
ZZZZZZ	273578	3.57	586408	4.60	332427	6.12	578488	7.43	421898	10.20	1049475	11.63
MC37884-1	273927	3.57	572760	4.60	324715	6.12	556690	7.43	395730	10.20	974920	11.63
ZZZZZZ	294257	3.57	628399	4.60	357378	6.12	620206	7.43	444808	10.20	1104545	11.63
ZZZZZZ	282779	3.57	582639	4.61	342639	6.12	593020	7.43	438826	10.20	1090341	11.63
ZZZZZZ	264542	3.57	554563	4.61	320368	6.12	557768	7.43	403804	10.20	1001325	11.62
ZZZZZZ	265273	3.57	570501	4.60	324952	6.12	567191	7.43	405756	10.20	1013474	11.63
ZZZZZZ	270641	3.57	580466	4.60	336728	6.12	584163	7.43	422716	10.20	1040662	11.63
ZZZZZZ	256064	3.57	547080	4.60	315456	6.12	546603	7.43	396682	10.20	981889	11.63
ZZZZZZ	285888	3.57	606779	4.60	343490	6.12	586490	7.43	428870	10.20	1043453	11.63
ZZZZZZ	234344	3.57	517670	4.60	303310	6.12	546991	7.43	423648	10.20	1094075	11.63
ZZZZZZ	287166	3.57	613861	4.60	354939	6.12	614663	7.43	443171	10.20	1085338	11.63
OP42660-MB	294392	3.57	629403	4.60	362932	6.12	636544	7.43	473513	10.20	1143095	11.63
OP42660-BS	273214	3.57	596873	4.61	336009	6.12	594383	7.43	435081	10.21	1036802	11.63
OP42660-MS	255688	3.57	559279	4.61	316928	6.12	570808	7.43	412252	10.21	990375	11.63
OP42660-MSD	254712	3.57	561699	4.61	318102	6.12	566121	7.43	412194	10.21	986957	11.63
MC37900-20	276484	3.57	604097	4.60	356306	6.12	631425	7.43	472127	10.20	1155260	11.63
ZZZZZZ	276662	3.57	607315	4.60	358820	6.12	634528	7.43	474517	10.20	1175438	11.63

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.5.2

7

Semivolatile Internal Standard Area Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW922-CC902	Injection Date:	04/21/15
Lab File ID:	W21538.D	Injection Time:	08:19
Instrument ID:	GCMSW	Method:	SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	263704	5.11	994608	6.21	583050	7.76	1058956	9.05	1148147	11.59	1132055	13.27
Upper Limit [a]	527408	5.61	1989216	6.71	1166100	8.26	2117912	9.55	2296294	12.09	2264110	13.77
Lower Limit [b]	131852	4.61	497304	5.71	291525	7.26	529478	8.55	574074	11.09	566028	12.77
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP42727-MB	273139	5.11	1028618	6.21	618013	7.76	1069146	9.04	1161701	11.58	1180761	13.27
OP42727-BS	278225	5.11	1042229	6.21	612620	7.76	1076627	9.05	1148618	11.59	1123637	13.27
OP42727-MS	326164	5.11	1224652	6.21	705659	7.76	1191909	9.05	1149866	11.59	1087776	13.27
OP42727-MSD	295458	5.11	1104968	6.21	635599	7.76	1094476	9.05	1046596	11.59	978871	13.27
MC38102-1	314052	5.11	1176756	6.21	708345	7.76	1158687	9.05	1119515	11.59	1043570	13.27
ZZZZZZ	320224	5.11	1189213	6.21	692024	7.76	1123527	9.05	1076401	11.59	1008648	13.27
ZZZZZZ	314120	5.11	1173354	6.21	688588	7.76	1120734	9.05	1050156	11.59	991685	13.27
ZZZZZZ	316950	5.11	1193316	6.21	702759	7.76	1129817	9.05	1062049	11.59	998117	13.27
ZZZZZZ	319169	5.11	1176712	6.21	693405	7.76	1145572	9.05	1086631	11.59	1020591	13.27
ZZZZZZ	268223	5.11	1002254	6.21	584313	7.76	952636	9.05	949708	11.59	954864	13.28
ZZZZZZ	317097	5.11	1183482	6.21	690408	7.76	1096208	9.05	977632	11.59	944125	13.28
ZZZZZZ	292986	5.11	1093644	6.21	638486	7.76	1003140	9.05	910406	11.59	873480	13.28
ZZZZZZ	288346	5.11	1060050	6.21	616848	7.76	1006949	9.05	1009257	11.59	1025591	13.28
ZZZZZZ	297495	5.11	1068073	6.22	626153	7.76	1029861	9.05	1048796	11.60	1044946	13.29
ZZZZZZ	294404	5.11	1093811	6.21	646329	7.76	1054720	9.05	1044095	11.60	1096855	13.29
ZZZZZZ	261533	5.11	963045	6.21	569542	7.76	931926	9.05	926367	11.59	955387	13.28
ZZZZZZ	271140	5.11	996526	6.21	585980	7.76	950487	9.05	962451	11.59	1001597	13.28
ZZZZZZ	314259	5.11	1132832	6.21	661610	7.76	1079582	9.05	1035462	11.59	1026626	13.28
ZZZZZZ	302954	5.11	1117186	6.21	655530	7.76	1066353	9.05	1026686	11.59	1003332	13.28
ZZZZZZ	313505	5.11	1146558	6.21	666277	7.76	1103600	9.05	1086014	11.59	1071554	13.28
OP42630-MB	332598	5.11	1217956	6.21	710701	7.76	1161770	9.05	1176929	11.59	1207070	13.28
OP42630-BS	321351	5.11	1186041	6.22	684492	7.76	1153118	9.05	1140455	11.59	1161287	13.28
OP42630-MS	316472	5.11	1177155	6.22	680544	7.76	1143515	9.05	1127129	11.59	1132364	13.28
OP42630-MSD	312833	5.11	1151006	6.22	662056	7.76	1101648	9.05	1078876	11.59	1092661	13.28
MC37883-1	342729	5.11	1257073	6.21	741354	7.76	1214789	9.05	1220506	11.59	1241858	13.28
ZZZZZZ	326081	5.11	1203892	6.21	716464	7.76	1165883	9.05	1155214	11.59	1167894	13.28

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.

7.5.3

7

Semivolatile Internal Standard Area Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW922-CC902	Injection Date:	04/21/15
Lab File ID:	W21538.D	Injection Time:	08:19
Instrument ID:	GCMSW	Method:	SW846 8270D

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.5.3

7

Semivolatile Internal Standard Area Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW923-CC902	Injection Date:	04/22/15
Lab File ID:	W21570.D	Injection Time:	10:21
Instrument ID:	GCMSW	Method:	SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	262984	5.11	993693	6.22	579584	7.76	1050811	9.05	1129085	11.60	1137279	13.28
Upper Limit [a]	525968	5.61	1987386	6.72	1159168	8.26	2101622	9.55	2258170	12.10	2274558	13.78
Lower Limit [b]	131492	4.61	496847	5.72	289792	7.26	525406	8.55	564543	11.10	568640	12.78
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
ZZZZZZ	322156	5.11	1211370	6.21	729098	7.76	1233087	9.05	1343274	11.59	1350792	13.28
ZZZZZZ	285199	5.11	1065276	6.21	644147	7.76	1105003	9.05	1215476	11.59	1241847	13.28
ZZZZZZ	318977	5.11	1179447	6.21	712503	7.76	1238461	9.05	1351156	11.59	1385505	13.28
MC37884-1	304176	5.11	1133761	6.21	671321	7.76	1158918	9.05	1212537	11.59	1241321	13.28
ZZZZZZ	316325	5.11	1176965	6.21	710194	7.76	1212510	9.05	1319071	11.59	1342105	13.28
ZZZZZZ	308812	5.11	1138257	6.21	684944	7.76	1173272	9.05	1288410	11.59	1312185	13.28
ZZZZZZ	287031	5.11	1063106	6.21	633432	7.76	1089934	9.05	1179955	11.59	1208881	13.28
OP42763-MB	340655	5.11	1261307	6.21	749226	7.76	1288515	9.05	1411191	11.59	1419522	13.28
OP42763-BS	302222	5.11	1131105	6.21	665692	7.76	1160424	9.05	1264772	11.59	1248855	13.28
OP42763-MS	326756	5.11	1222200	6.21	713346	7.76	1247066	9.05	1274374	11.59	1245246	13.28
OP42763-MSD	312226	5.11	1162700	6.21	685622	7.76	1208182	9.05	1208544	11.59	1191563	13.28
MC38080-1	327837	5.11	1221539	6.21	722031	7.76	1239069	9.05	1268311	11.59	1226893	13.28
ZZZZZZ	322130	5.11	1190144	6.21	710368	7.76	1209634	9.05	1221807	11.59	1189367	13.28
ZZZZZZ	313778	5.11	1141868	6.21	678448	7.76	1150858	9.05	1139517	11.59	1093264	13.28
ZZZZZZ	305379	5.11	1134102	6.21	670677	7.76	1129044	9.05	1119805	11.59	1071135	13.28
ZZZZZZ	316166	5.11	1172384	6.21	697550	7.76	1174467	9.05	1173149	11.59	1136247	13.28
ZZZZZZ	281642	5.11	1042383	6.21	625505	7.76	1027424	9.05	1007831	11.59	965592	13.28
ZZZZZZ	324159	5.11	1198215	6.21	703934	7.76	1154988	9.05	1142086	11.60	1147585	13.30
OP42759-MB	289966	5.11	1085637	6.21	649934	7.76	1090316	9.05	1153317	11.59	1175318	13.28
OP42759-LB	289966	5.11	1085637	6.21	649934	7.76	1090316	9.05	1153317	11.59	1175318	13.28
OP42759-BS	290946	5.11	1086703	6.22	635802	7.76	1112654	9.05	1149368	11.60	1165314	13.28
OP42759-MS	291171	5.11	1083978	6.22	632481	7.76	1093897	9.05	1119525	11.59	1145406	13.28
OP42759-MSD	278136	5.11	1033546	6.21	605393	7.76	1058106	9.05	1073938	11.59	1084073	13.28
JB92642-5	273412	5.11	1034093	6.21	621764	7.76	1066227	9.05	1091280	11.59	1098020	13.28
ZZZZZZ	288764	5.11	1068591	6.21	639308	7.76	1093785	9.05	1095928	11.59	1116905	13.28
ZZZZZZ	286395	5.11	1071709	6.21	642276	7.76	1104766	9.05	1148071	11.59	1148437	13.28

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW923-CC902	Injection Date:	04/22/15
Lab File ID:	W21570.D	Injection Time:	10:21
Instrument ID:	GCMSW	Method:	SW846 8270D

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.5.4

Semivolatile Surrogate Recovery Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8270D Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC37884-1	W21574.D	37	27	92	63	64	91
OP42630-BS	W21560.D	65	49	108	95	93	104
OP42630-MB	W21559.D	33	26	68	51	47	75
OP42630-MS	W21561.D	54	38	103	88	85	102
OP42630-MSD	W21562.D	57	40	107	92	90	107

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	10-79%
S2 = Phenol-d5	10-72%
S3 = 2,4,6-Tribromophenol	35-138%
S4 = Nitrobenzene-d5	30-116%
S5 = 2-Fluorobiphenyl	35-107%
S6 = Terphenyl-d14	43-135%

7.6.1

7

Semivolatile Surrogate Recovery Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8270D BY SIM Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC37884-1	I95247.D	63	60	96
OP42631-BS	I95236.D	94	84	111
OP42631-BSD	I95237.D	85	78	104
OP42631-MB	I95235.D	50	44	78
OP42631-MS	I95238.D	86	79	106
OP42631-MSD	I95239.D	90	82	111

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	26-121%
S2 = 2-Fluorobiphenyl	28-107%
S3 = Terphenyl-d14	29-129%

7.6.2

7

New England ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries

Method Blank Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42703-MB	BB62801.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420

The QC reported here applies to the following samples: Method: SW846 8011

MC37884-1, MC37884-3

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.0061	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.0061	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	Bromofluorobenzene (S)	105%	60-140%
460-00-4	Bromofluorobenzene (S)	105%	60-140%

8.1.1

Blank Spike Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42703-BS	BB62802.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420

The QC reported here applies to the following samples: Method: SW846 8011

MC37884-1, MC37884-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.070	99	45-149
106-93-4	1,2-Dibromoethane	0.071	0.074	104	51-149

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	101%	60-140%
460-00-4	Bromofluorobenzene (S)	100%	60-140%

8.2.1

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42703-MS	BB62803.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420
OP42703-MSD	BB62804.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420
MC37883-1	BB62805.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420

The QC reported here applies to the following samples: Method: SW846 8011

MC37884-1, MC37884-3

CAS No.	Compound	MC37883-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	ND		0.068	0.089	131	0.0688	0.059	86	41* [a]	31-169/30
106-93-4	1,2-Dibromoethane	ND		0.068	0.099	146	0.0688	0.062	90	46* [a]	34-175/30

CAS No.	Surrogate Recoveries	MS	MSD	MC37883-1	Limits
460-00-4	Bromofluorobenzene (S)	131%	97%	99%	60-140%
460-00-4	Bromofluorobenzene (S)	140%	103%	107%	60-140%

(a) High RPD due to possible matrix interference and/or sample non-homogeneity.

* = Outside of Control Limits.

8.3.1

Volatile Surrogate Recovery Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8011	Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
MC37884-1	BB62810.D	95	113
MC37884-3	BB62812.D	106	113
OP42703-BS	BB62802.D	101	100
OP42703-MB	BB62801.D	105	105
OP42703-MS	BB62803.D	131	140
OP42703-MSD	BB62804.D	97	103

Surrogate Compounds	Recovery Limits
S1 = Bromofluorobenzene (S)	60-140%

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

8.4.1

GC Surrogate Retention Time Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBB3420-ICC3420	Injection Date:	04/17/15
Lab File ID:	BB62797.D	Injection Time:	13:57
Instrument ID:	GCBB	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	6.88	7.25

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP42703-MB	BB62801.D	04/17/15	15:56	6.88	7.25
OP42703-BS	BB62802.D	04/17/15	16:26	6.88	7.25
OP42703-MS	BB62803.D	04/17/15	16:56	6.88	7.25
OP42703-MSD	BB62804.D	04/17/15	17:25	6.88	7.25
MC37883-1	BB62805.D	04/17/15	17:53	6.88	7.26
ZZZZZZ	BB62806.D	04/17/15	18:23	6.89	7.26
ZZZZZZ	BB62807.D	04/17/15	18:52	6.89	7.26
ZZZZZZ	BB62808.D	04/17/15	19:22	6.89	7.26
ZZZZZZ	BB62809.D	04/17/15	19:52	6.88	7.25
MC37884-1	BB62810.D	04/17/15	20:21	6.88	7.25

Surrogate Compounds

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.5.1

GC Surrogate Retention Time Summary

Job Number: MC37884
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBB3420-CC3420	Injection Date:	04/17/15
Lab File ID:	BB62811.D	Injection Time:	20:51
Instrument ID:	GCBB	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	6.88	7.26

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
MC37884-3	BB62812.D	04/17/15	21:20	6.89	7.25
ZZZZZZ	BB62813.D	04/17/15	21:51	6.89	7.25
ZZZZZZ	BB62814.D	04/17/15	22:22	6.88	7.25
ZZZZZZ	BB62815.D	04/17/15	22:51	6.88	7.25
ZZZZZZ	BB62816.D	04/17/15	23:20	6.89	7.26
ZZZZZZ	BB62817.D	04/17/15	23:51	6.88	7.25
ZZZZZZ	BB62818.D	04/18/15	00:21	6.88	7.25
ZZZZZZ	BB62819.D	04/18/15	00:50	6.88	7.25
ZZZZZZ	BB62820.D	04/18/15	01:19	6.88	7.25
ZZZZZZ	BB62821.D	04/18/15	01:48	6.88	7.25

Surrogate Compounds

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.5.2

Roxana Groundwater Quarterly – 2nd Quarter 2015 Data Review

Laboratory SDG: MC37910

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 4/28/2015

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2014

Sample Identification	Sample Identification
MW9-ROX-040915	MW6C-ROX-040915
MW16-ROX-040915	MW24-ROX-040915
TB-ROX-040915-HCL	TB-ROX-040915-ST

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 SVOCs and PAHs were detected in the method blank. This issue is addressed further in the appropriate section below. Additionally, the initial calibration verification for 2-hexanone and hexachlorocyclopentadiene exceeded 30 percent difference (%D).

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
OP42630-MB	SVOCs	Butyl benzyl phthalate	0.42 µg/L
OP42630-MB	SVOCs	Di-n-butyl phthalate	0.28 µg/L
OP42631-MB	PAHs	1-Methylnaphthalene	0.022 µg/L
OP42631-MB	PAHs	2-Methylnaphthalene	0.023 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. Please see section 12.0 of this review for additional qualifications regarding samples associated with 1-methylnaphthalene and 2-methylnaphthalene in method blank OP-42631-MB.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW9-ROX-040915	SVOCs	Butyl benzyl phthalate	-	**U**
MW24-ROX-040915	SVOCs	Butyl benzyl phthalate	-	**U**

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

Yes

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

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, professional judgment was also used to qualify as estimated, however not reject, data that was associated with 1-methylnaphthalene and 2-methylnaphthalene in method blank OP-42631-MB, due to comparable historical detections.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW9-ROX-040915	PAHs	2-Methylnaphthalene	-	**U**
MW6C-ROX-040915	PAHs	2-Methylnaphthalene	-	**U**
MW16-ROX-040915	PAHs	1-Methylnaphthalene	-	**U**
MW16-ROX-040915	PAHs	2-Methylnaphthalene	-	**U**

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW24-ROX-040915	PAHs	1-Methylnaphthalene	-	**U**
MW24-ROX-040915	PAHs	2-Methylnaphthalene	-	**U**

New England ACCUTEST LABORATORIES

04/24/15

Technical Report for

Shell Oil

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana,

Accutest Job Number: MC37910

Sampling Date: 04/09/15

Report to:

AECOM, INC.

Melissa.mansker@urs.com

ATTN: Melissa Mansker

Total number of pages in report: **94**

Reviewed on 4/28/15

Reza Tand
Lab Director

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

Sections: 1 2 3 4 5 6 7 8

Table of Contents

Section 1: Sample Summary **3**
Section 2: Case Narrative/Conformance Summary **4**
Section 3: Summary of Hits 6
Section 4: Sample Results **7**
4.1: MC37910-1: MW9-ROX-040915 8
4.2: MC37910-2: MW6C-ROX-040915 15
4.3: MC37910-3: MW16-ROX-040915 22
4.4: MC37910-4: MW24-ROX-040915 29
4.5: MC37910-5: TB-ROX-040915-HCL 36
4.6: MC37910-6: TB-ROX-040915-ST 39
Section 5: Misc. Forms **40**
5.1: Chain of Custody 41
5.2: Sample Tracking Chronicle 43
5.3: Internal Chain of Custody 45
Section 6: GC/MS Volatiles - QC Data Summaries **47**
6.1: Method Blank Summary 48
6.2: Blank Spike Summary 54
6.3: Blank Spike/Blank Spike Duplicate Summary 57
6.4: Matrix Spike/Matrix Spike Duplicate Summary 60
6.5: Internal Standard Area Summaries 66
6.6: Surrogate Recovery Summaries 68
Section 7: GC/MS Semi-volatiles - QC Data Summaries **69**
7.1: Method Blank Summary 70
7.2: Blank Spike Summary 73
7.3: Blank Spike/Blank Spike Duplicate Summary 75
7.4: Matrix Spike/Matrix Spike Duplicate Summary 76
7.5: Internal Standard Area Summaries 79
7.6: Surrogate Recovery Summaries 86
Section 8: GC Volatiles - QC Data Summaries **88**
8.1: Method Blank Summary 89
8.2: Blank Spike Summary 90
8.3: Matrix Spike/Matrix Spike Duplicate Summary 91
8.4: Surrogate Recovery Summaries 92
8.5: GC Surrogate Retention Time Summaries 93

Sample Summary

Shell Oil

Job No: MC37910

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
MC37910-1	04/09/15	10:45	DCBT	04/10/15	AQ	Ground Water	MW9-ROX-040915
MC37910-2	04/09/15	12:45	DCBT	04/10/15	AQ	Ground Water	MW6C-ROX-040915
MC37910-3	04/09/15	14:10	DCBT	04/10/15	AQ	Ground Water	MW16-ROX-040915
MC37910-4	04/09/15	15:15	DCBT	04/10/15	AQ	Ground Water	MW24-ROX-040915
MC37910-5	04/09/15	00:00	DCBT	04/10/15	AQ	Trip Blank Water	TB-ROX-040915-HCL
MC37910-6	04/09/15	00:00	DCBT	04/10/15	AQ	Trip Blank Water	TB-ROX-040915-ST

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Shell Oil **Job No** MC37910

Site: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Centra **Report Date** 4/24/2015 1:22:46 PM

4 Sample(s) and 2 Trip Blank(s) were collected on 04/09/2015 and were received at Accutest on 04/10/2015 properly preserved, at 2.5 Deg. C and intact. These Samples received an Accutest job number of MC37910. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report. 1-Chlorohexane, Benzenethiol, Dibenz(a,h)acridine, Indene, and Quinoline were searched in the library search and reported only if detections were found.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix: AQ **Batch ID:** MSV1378

- All samples were analyzed within the recommended method holding time.
- Sample(s) D69816-1MS, D69816-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- D69816-1MS/MSD Recovery(s) for 2-Chloroethyl vinyl ether are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Initial calibration verification standard MSV1332-ICV1332 for 2-hexanone exceed 30% Difference (response bias high). Associated samples are non-detect for this compound.

Matrix: AQ **Batch ID:** MSV1380

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC38044-1MS, MC38044-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- MC38044-1MS/MSD Recovery(s) for 2-Chloroethyl vinyl ether are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.

Extractables by GCMS By Method SW846 8270D

Matrix: AQ **Batch ID:** OP42630

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC37883-1MS, MC37883-1MSD were used as the QC samples indicated.
- Initial calibration verification MSW902-ICV902, file W21009 for Hexachlorocyclopentadiene exceed 30% Difference.
- Sample(s) MC37910-1, MC37910-4 have compound(s) reported with a "B" qualifier, indicating analyte is found in the associated method blank.

Extractables by GCMS By Method SW846 8270D BY SIM

Matrix: AQ **Batch ID:** OP42631

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC37883-1MS, MC37883-1MSD were used as the QC samples indicated.
- Sample(s) MC37910-1, MC37910-2, MC37910-3, MC37910-4 have compound(s) reported with a "B" qualifier, indicating analyte is found in the associated method blank.

Volatiles by GC By Method SW846 8011

Matrix: AQ	Batch ID: OP42703

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC37883-1MS, MC37883-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- RPD(s) for MSD for 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane are outside control limits for sample OP42703-MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC37910).

Summary of Hits

Job Number: MC37910
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Collected: 04/09/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC37910-1	MW9-ROX-040915					
Butyl benzyl phthalate		~~0.26~~ JB 4	5.2	0.25	ug/l	SW846 8270D
Acenaphthene		0.020 J	0.10	0.0077	ug/l	SW846 8270D BY SIM
Anthracene		0.020 J	0.10	0.010	ug/l	SW846 8270D BY SIM
Fluorene		0.027 J	0.10	0.016	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		0.018 JB J	2.1	0.011	ug/l	SW846 8270D BY SIM
Phenanthrene		0.026 J	0.052	0.011	ug/l	SW846 8270D BY SIM
MC37910-2	MW6C-ROX-040915					
Anthracene		0.016 J	0.11	0.011	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		0.025 JB J	2.2	0.012	ug/l	SW846 8270D BY SIM
MC37910-3	MW16-ROX-040915					
1-Methylnaphthalene		0.026 JB J	2.1	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		0.039 JB J	2.1	0.012	ug/l	SW846 8270D BY SIM
MC37910-4	MW24-ROX-040915					
Butyl benzyl phthalate		~~0.30~~ JB 4	5.3	0.26	ug/l	SW846 8270D
1-Methylnaphthalene		0.020 JB J	2.1	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		0.035 JB J	2.1	0.012	ug/l	SW846 8270D BY SIM
MC37910-5	TB-ROX-040915-HCL					
No hits reported in this sample.						
MC37910-6	TB-ROX-040915-ST					
No hits reported in this sample.						

New England ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW9-ROX-040915		
Lab Sample ID:	MC37910-1	Date Sampled:	04/09/15
Matrix:	AQ - Ground Water	Date Received:	04/10/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38315.D	1	04/22/15	KD	n/a	n/a	MSV1380
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW9-ROX-040915		
Lab Sample ID:	MC37910-1	Date Sampled:	04/09/15
Matrix:	AQ - Ground Water	Date Received:	04/10/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW9-ROX-040915		
Lab Sample ID:	MC37910-1	Date Sampled:	04/09/15
Matrix:	AQ - Ground Water	Date Received:	04/10/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	128%		72-133%
2037-26-5	Toluene-D8	105%		85-114%
460-00-4	4-Bromofluorobenzene	101%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW9-ROX-040915		
Lab Sample ID:	MC37910-1	Date Sampled:	04/09/15
Matrix:	AQ - Ground Water	Date Received:	04/10/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21577.D	1	04/22/15	KD	04/10/15	OP42630	MSW923
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.2	0.30	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.52	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.48	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.35	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.61	ug/l	
95-48-7	2-Methylphenol	ND	10	0.31	ug/l	
	3&4-Methylphenol	ND	10	0.46	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.48	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.36	ug/l	
108-95-2	Phenol	ND	5.2	0.33	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.47	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.46	ug/l	
62-53-3	Aniline	ND	10	0.47	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	~~0.26~~ U	5.2	0.25	ug/l	JB U
100-51-6	Benzyl Alcohol	ND	10	0.33	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.2	0.35	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.37	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	0.51	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	0.43	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	0.43	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	0.27	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.2	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.38	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.39	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	0.55	ug/l	
132-64-9	Dibenzofuran	ND	2.1	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.2	0.28	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.2	0.30	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW9-ROX-040915		
Lab Sample ID:	MC37910-1	Date Sampled:	04/09/15
Matrix:	AQ - Ground Water	Date Received:	04/10/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.2	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	5.2	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.33	ug/l	
118-74-1	Hexachlorobenzene	ND	5.2	0.25	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.2	0.29	ug/l	
78-59-1	Isophorone	ND	5.2	0.48	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.37	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.42	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.53	ug/l	
98-95-3	Nitrobenzene	ND	5.2	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	0.26	ug/l	
110-86-1	Pyridine	ND	10	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	45%		10-79%
4165-62-2	Phenol-d5	32%		10-72%
118-79-6	2,4,6-Tribromophenol	94%		35-138%
4165-60-0	Nitrobenzene-d5	81%		30-116%
321-60-8	2-Fluorobiphenyl	77%		35-107%
1718-51-0	Terphenyl-d14	100%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW9-ROX-040915		
Lab Sample ID:	MC37910-1	Date Sampled:	04/09/15
Matrix:	AQ - Ground Water	Date Received:	04/10/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95253.D	1	04/21/15	MR	04/10/15	OP42631	MSI3563
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.020	0.10	0.0077	ug/l	J
208-96-8	Acenaphthylene	ND	0.10	0.0087	ug/l	
120-12-7	Anthracene	0.020	0.10	0.010	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.052	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.052	0.020	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.0076	ug/l	
86-73-7	Fluorene	0.027	0.10	0.016	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.021	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.1	0.013	ug/l	
91-57-6	2-Methylnaphthalene	0.018	2.1	0.011	ug/l	JB J
85-01-8	Phenanthrene	0.026	0.052	0.011	ug/l	J
129-00-0	Pyrene	ND	0.10	0.0088	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	79%		26-121%
321-60-8	2-Fluorobiphenyl	70%		28-107%
1718-51-0	Terphenyl-d14	107%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW9-ROX-040915		
Lab Sample ID:	MC37910-1	Date Sampled:	04/09/15
Matrix:	AQ - Ground Water	Date Received:	04/10/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62813.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	37.1 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0058	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0057	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	105%		60-140%
460-00-4	Bromofluorobenzene (S)	107%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6C-ROX-040915		
Lab Sample ID:	MC37910-2	Date Sampled:	04/09/15
Matrix:	AQ - Ground Water	Date Received:	04/10/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38316.D	1	04/22/15	KD	n/a	n/a	MSV1380
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6C-ROX-040915		
Lab Sample ID:	MC37910-2	Date Sampled:	04/09/15
Matrix:	AQ - Ground Water	Date Received:	04/10/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6C-ROX-040915		
Lab Sample ID:	MC37910-2	Date Sampled:	04/09/15
Matrix:	AQ - Ground Water	Date Received:	04/10/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	126%		72-133%
2037-26-5	Toluene-D8	106%		85-114%
460-00-4	4-Bromofluorobenzene	102%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6C-ROX-040915		
Lab Sample ID:	MC37910-2	Date Sampled:	04/09/15
Matrix:	AQ - Ground Water	Date Received:	04/10/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21571.D	1	04/22/15	KD	04/10/15	OP42630	MSW923
Run #2							

	Initial Volume	Final Volume
Run #1	930 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	2.7	ug/l	
95-57-8	2-Chlorophenol	ND	5.4	0.31	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.54	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.50	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	0.36	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	0.63	ug/l	
95-48-7	2-Methylphenol	ND	11	0.32	ug/l	
	3&4-Methylphenol	ND	11	0.48	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.50	ug/l	
100-02-7	4-Nitrophenol	ND	22	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	11	0.37	ug/l	
108-95-2	Phenol	ND	5.4	0.34	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.49	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.48	ug/l	
62-53-3	Aniline	ND	11	0.49	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.4	0.27	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.4	0.26	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.35	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.4	0.37	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.38	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.4	0.53	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.4	0.45	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.4	0.45	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.4	0.28	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.4	0.32	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.40	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.40	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.4	0.57	ug/l	
132-64-9	Dibenzofuran	ND	2.2	0.27	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.4	0.29	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.4	0.31	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6C-ROX-040915		
Lab Sample ID:	MC37910-2	Date Sampled:	04/09/15
Matrix:	AQ - Ground Water	Date Received:	04/10/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.4	0.29	ug/l	
131-11-3	Dimethyl phthalate	ND	5.4	0.26	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.34	ug/l	
118-74-1	Hexachlorobenzene	ND	5.4	0.26	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.4	0.31	ug/l	
78-59-1	Isophorone	ND	5.4	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.38	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.43	ug/l	
100-01-6	4-Nitroaniline	ND	11	0.55	ug/l	
98-95-3	Nitrobenzene	ND	5.4	0.52	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.4	0.27	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.4	0.28	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.4	0.27	ug/l	
110-86-1	Pyridine	ND	11	0.39	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	56%		10-79%
4165-62-2	Phenol-d5	40%		10-72%
118-79-6	2,4,6-Tribromophenol	111%		35-138%
4165-60-0	Nitrobenzene-d5	91%		30-116%
321-60-8	2-Fluorobiphenyl	89%		35-107%
1718-51-0	Terphenyl-d14	106%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6C-ROX-040915		
Lab Sample ID:	MC37910-2	Date Sampled:	04/09/15
Matrix:	AQ - Ground Water	Date Received:	04/10/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95254.D	1	04/21/15	MR	04/10/15	OP42631	MSI3563
Run #2							

	Initial Volume	Final Volume
Run #1	930 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.11	0.0081	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.0090	ug/l	
120-12-7	Anthracene	0.016	0.11	0.011	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.054	0.025	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.054	0.020	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.011	ug/l	
218-01-9	Chrysene	ND	0.11	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.016	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.0080	ug/l	
86-73-7	Fluorene	ND	0.11	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.022	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	0.013	ug/l	
91-57-6	2-Methylnaphthalene	0.025	2.2	0.012	ug/l	JB J
85-01-8	Phenanthrene	ND	0.054	0.012	ug/l	
129-00-0	Pyrene	ND	0.11	0.0091	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	92%		26-121%
321-60-8	2-Fluorobiphenyl	83%		28-107%
1718-51-0	Terphenyl-d14	114%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6C-ROX-040915		
Lab Sample ID:	MC37910-2	Date Sampled:	04/09/15
Matrix:	AQ - Ground Water	Date Received:	04/10/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62814.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	35.5 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.0060	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.0060	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	101%		60-140%
460-00-4	Bromofluorobenzene (S)	109%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW16-ROX-040915		
Lab Sample ID:	MC37910-3	Date Sampled:	04/09/15
Matrix:	AQ - Ground Water	Date Received:	04/10/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38317.D	1	04/22/15	KD	n/a	n/a	MSV1380
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW16-ROX-040915		
Lab Sample ID:	MC37910-3	Date Sampled:	04/09/15
Matrix:	AQ - Ground Water	Date Received:	04/10/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW16-ROX-040915		
Lab Sample ID:	MC37910-3	Date Sampled:	04/09/15
Matrix:	AQ - Ground Water	Date Received:	04/10/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	126%		72-133%
2037-26-5	Toluene-D8	104%		85-114%
460-00-4	4-Bromofluorobenzene	102%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW16-ROX-040915		
Lab Sample ID:	MC37910-3	Date Sampled:	04/09/15
Matrix:	AQ - Ground Water	Date Received:	04/10/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21572.D	1	04/22/15	KD	04/10/15	OP42630	MSW923
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.3	0.31	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.53	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.49	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	0.36	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	0.62	ug/l	
95-48-7	2-Methylphenol	ND	11	0.31	ug/l	
	3&4-Methylphenol	ND	11	0.47	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.49	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	11	0.36	ug/l	
108-95-2	Phenol	ND	5.3	0.34	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.47	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.47	ug/l	
62-53-3	Aniline	ND	11	0.48	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.26	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.34	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	0.36	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.38	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	0.52	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.44	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.44	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	0.27	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	0.31	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.39	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.40	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.56	ug/l	
132-64-9	Dibenzofuran	ND	2.1	0.26	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.3	0.28	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	0.30	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW16-ROX-040915		
Lab Sample ID:	MC37910-3	Date Sampled:	04/09/15
Matrix:	AQ - Ground Water	Date Received:	04/10/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.3	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	5.3	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.33	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.26	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.3	0.30	ug/l	
78-59-1	Isophorone	ND	5.3	0.49	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.38	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.43	ug/l	
100-01-6	4-Nitroaniline	ND	11	0.54	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.51	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	0.27	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.26	ug/l	
110-86-1	Pyridine	ND	11	0.38	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	56%		10-79%
4165-62-2	Phenol-d5	40%		10-72%
118-79-6	2,4,6-Tribromophenol	109%		35-138%
4165-60-0	Nitrobenzene-d5	95%		30-116%
321-60-8	2-Fluorobiphenyl	88%		35-107%
1718-51-0	Terphenyl-d14	106%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW16-ROX-040915		
Lab Sample ID:	MC37910-3	Date Sampled:	04/09/15
Matrix:	AQ - Ground Water	Date Received:	04/10/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95255.D	1	04/21/15	MR	04/10/15	OP42631	MSI3563
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.11	0.0079	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.0088	ug/l	
120-12-7	Anthracene	ND	0.11	0.010	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.053	0.025	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.053	0.020	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.011	ug/l	
218-01-9	Chrysene	ND	0.11	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.016	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.0078	ug/l	
86-73-7	Fluorene	ND	0.11	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.021	ug/l	
90-12-0	1-Methylnaphthalene	0.026	2.1	0.013	ug/l	JB J
91-57-6	2-Methylnaphthalene	0.039	2.1	0.012	ug/l	JB J
85-01-8	Phenanthrene	ND	0.053	0.011	ug/l	
129-00-0	Pyrene	ND	0.11	0.0089	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	92%		26-121%
321-60-8	2-Fluorobiphenyl	80%		28-107%
1718-51-0	Terphenyl-d14	108%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW16-ROX-040915		
Lab Sample ID:	MC37910-3	Date Sampled:	04/09/15
Matrix:	AQ - Ground Water	Date Received:	04/10/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62815.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	36.8 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0058	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0058	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	102%		60-140%
460-00-4	Bromofluorobenzene (S)	105%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW24-ROX-040915		
Lab Sample ID:	MC37910-4	Date Sampled:	04/09/15
Matrix:	AQ - Ground Water	Date Received:	04/10/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38318.D	1	04/23/15	KD	n/a	n/a	MSV1380
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW24-ROX-040915		
Lab Sample ID:	MC37910-4	Date Sampled:	04/09/15
Matrix:	AQ - Ground Water	Date Received:	04/10/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW24-ROX-040915		
Lab Sample ID:	MC37910-4	Date Sampled:	04/09/15
Matrix:	AQ - Ground Water	Date Received:	04/10/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	125%		72-133%
2037-26-5	Toluene-D8	105%		85-114%
460-00-4	4-Bromofluorobenzene	101%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW24-ROX-040915		
Lab Sample ID:	MC37910-4	Date Sampled:	04/09/15
Matrix:	AQ - Ground Water	Date Received:	04/10/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21573.D	1	04/22/15	KD	04/10/15	OP42630	MSW923
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.3	0.31	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.53	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.49	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	0.36	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	0.62	ug/l	
95-48-7	2-Methylphenol	ND	11	0.31	ug/l	
	3&4-Methylphenol	ND	11	0.47	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.49	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	11	0.36	ug/l	
108-95-2	Phenol	ND	5.3	0.34	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.47	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.47	ug/l	
62-53-3	Aniline	ND	11	0.48	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	~~0.30~~ U	5.3	0.26	ug/l	JB U
100-51-6	Benzyl Alcohol	ND	11	0.34	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	0.36	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.38	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	0.52	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.44	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.44	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	0.27	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	0.31	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.39	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.40	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.56	ug/l	
132-64-9	Dibenzofuran	ND	2.1	0.26	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.3	0.28	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	0.30	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW24-ROX-040915		
Lab Sample ID:	MC37910-4	Date Sampled:	04/09/15
Matrix:	AQ - Ground Water	Date Received:	04/10/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.3	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	5.3	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.33	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.26	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.3	0.30	ug/l	
78-59-1	Isophorone	ND	5.3	0.49	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.38	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.43	ug/l	
100-01-6	4-Nitroaniline	ND	11	0.54	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.51	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	0.27	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.26	ug/l	
110-86-1	Pyridine	ND	11	0.38	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	40%		10-79%
4165-62-2	Phenol-d5	29%		10-72%
118-79-6	2,4,6-Tribromophenol	97%		35-138%
4165-60-0	Nitrobenzene-d5	71%		30-116%
321-60-8	2-Fluorobiphenyl	69%		35-107%
1718-51-0	Terphenyl-d14	105%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW24-ROX-040915		
Lab Sample ID:	MC37910-4	Date Sampled:	04/09/15
Matrix:	AQ - Ground Water	Date Received:	04/10/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95256.D	1	04/21/15	MR	04/10/15	OP42631	MSI3563
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.11	0.0079	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.0088	ug/l	
120-12-7	Anthracene	ND	0.11	0.010	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.053	0.025	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.053	0.020	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.011	ug/l	
218-01-9	Chrysene	ND	0.11	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.016	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.0078	ug/l	
86-73-7	Fluorene	ND	0.11	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.021	ug/l	
90-12-0	1-Methylnaphthalene	0.020	2.1	0.013	ug/l	JB J
91-57-6	2-Methylnaphthalene	0.035	2.1	0.012	ug/l	JB J
85-01-8	Phenanthrene	ND	0.053	0.011	ug/l	
129-00-0	Pyrene	ND	0.11	0.0089	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	70%		26-121%
321-60-8	2-Fluorobiphenyl	64%		28-107%
1718-51-0	Terphenyl-d14	112%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW24-ROX-040915		
Lab Sample ID:	MC37910-4	Date Sampled:	04/09/15
Matrix:	AQ - Ground Water	Date Received:	04/10/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62816.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	36.3 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0059	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0059	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	107%		60-140%
460-00-4	Bromofluorobenzene (S)	111%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-040915-HCL		
Lab Sample ID:	MC37910-5	Date Sampled:	04/09/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/10/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38251.D	1	04/21/15	KD	n/a	n/a	MSV1378
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-040915-HCL		
Lab Sample ID:	MC37910-5	Date Sampled:	04/09/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/10/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-040915-HCL		
Lab Sample ID:	MC37910-5	Date Sampled:	04/09/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/10/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		72-133%
2037-26-5	Toluene-D8	102%		85-114%
460-00-4	4-Bromofluorobenzene	99%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-040915-ST		
Lab Sample ID:	MC37910-6	Date Sampled:	04/09/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/10/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62817.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	37.3 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0057	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0057	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	111%		60-140%
460-00-4	Bromofluorobenzene (S)	117%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

LAB (LOCA

☐XENCO (_____)

☐CALSCIENCE (_____)

☑OTHER (Accutest Labs: 495 Technology Ctr W Marlborough, MA 01752 (508-481-6200))

☐SPL (Lab Vendor # (_____))

Lab Vendor #

Shell Oil ...oducts Chain Of Custody Record

ECOM

Please Check Appropriate Box:

☑ENV. SERVICES	☐MOTIVA RETAIL	☐SHELL RETAIL
☐MOTIVA SOMCH	☐CONSULTANT	☐LUBES
☐SHELL PIPELINE	☐OTHER _____	

Print Bill To Contact Name: Bob Billman

PO #

INCIDENT # (ENV SERVICES): 9 7 2 1 0 8 4 0

SAP # 3 4 0 0 0 6 1

☐CHECK IF NO INCIDENT # APPLIES

DATE: 04/09/15

PAGE: 1 of 1

SAMPLING COMPANY: URS CORPORATION

LOG CODE:

SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA

STATE: IL

GLOBAL ID NO.:

ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300; ST. LOUIS, MO 63110

EDF DELIVERABLE TO (Name, Company, Office Location):

PHONE NO:

E-MAIL:

CONSULTANT PROJECT NO: Roxana Quarterly GW / 21563720.03002

PROJECT CONTACT (Hardcopy or PDF Report to): Elizabeth Kunkel, Bob Billman, Lindsay Rathnow

TELEPHONE: 314-429-0100

FAX: 314-429-0462

Bill To Contact E-MAIL: bob.billman@aecom.com; elizabeth.kunkel@aecom.com; lindsay.rathnow@aecom.com

SAMPLER NAME(S) (Print): D Chase & B. Tesfu

LAB USE ONLY: MC37910

TURNAROUND TIME (CALENDAR DAYS): ☑STANDARD (10 DAY) ☐5 DAYS ☐3 DAYS ☐2 DAYS ☐24 HOURS ☐RESULTS NEEDED ON WEEKEND

☐LA - RWQCB REPORT FORMAT ☐UST AGENCY:

DELIVERABLE: ☐LEVEL 1 ☑LEVEL 2 ☐LEVEL 3 ☑LEVEL 4 ☑OTHER (SPECIFY) EDD

TEMPERATURE ON RECEIPT C°: Cooler #1 | Cooler #2 | Cooler #3

SPECIAL INSTRUCTIONS OR NOTES:

* Please include "J" values on Reports.
* Please provide sample receipt upon login.

☑SHELL CONTRACT RATE APPLIES
☐STATE REIMBURSEMENT RATE APPLIES
☐EDD NOT NEEDED
☑EDD RECEIPT VERIFICATION REQUESTED
☐PROVIDE EDD/ DISK

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260C SL+TICS	VOC 8011 SL	SVOC 8270D SL+TICS	PAH 8270LL	FIELD NOTES: Container PID Readings or Laboratory Notes
-1	MN9-ROX-040915	4/9/15	10:45	Water	2			2	2	6	X	X	X	X	0.0
-2	MN6C-ROX-040915	4-9-15	12:45		2			2	2	6	X	X	X	X	
-3	MN16-ROX-040915		14:10		2			2	2	6	X	X	X	X	
-4	MN24-ROX-040915		15:15		2			2	2	6	X	X	X	X	
-5	TB-ROX-040915-HCL		0:00		2					2	X				
-6	TB-ROX-040915-ST		0:00						2	2		X			
															16A, 3H3,
									BT						

Relinquished by (Signature)	Received by (Signature)	Date	Time
Bethelehem Bft	8066 2852 5030 FED EX	04/09/15	17:30
FEDX		4-10-15	10 00

09/2008 Revision

2.5°C

5.1 5

MC37910: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC37910 **Client:** URS **Project:** 900 SOUTH CENTRAL

Date / Time Received: 4/10/2015 10:00:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (2.5/2.5);

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	☑ ☐	3. COC Present:	☑ ☐
2. Custody Seals Intact:	☑ ☐	4. Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Thermometer ID:	G1;
3. Cooler media:	Ice (Bag)
4. No. Coolers:	1

Quality Control Preservation	Y or N	N/A
1. Trip Blank present / cooler:	☑ ☐	☐
2. Trip Blank listed on COC:	☑ ☐	☐
3. Samples preserved properly:	☑ ☐	
4. VOCs headspace free:	☑ ☐	☐

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	☑ ☐
2. Container labeling complete:	☑ ☐
3. Sample container label / COC agree:	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	☑ ☐
2. All containers accounted for:	☑ ☐
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear:	☑ ☐	
2. Bottles received for unspecified tests	☐ ☑	
3. Sufficient volume recvd for analysis:	☑ ☐	
4. Compositing instructions clear:	☐ ☐	☑
5. Filtering instructions clear:	☐ ☐	☑

Comments

5.1

5

MC37910: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC37910

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC37910-1 Collected: 09-APR-15 10:45 By: DCBT MW9-ROX-040915			Received: 10-APR-15 By:			
MC37910-1	SW846 8011	17-APR-15 21:51	NK	16-APR-15	FT	V8011SL
MC37910-1	SW846 8270D BY SIM	21-APR-15 11:43	MR	10-APR-15	FC	B8270SIMSL
MC37910-1	SW846 8270D	22-APR-15 13:23	KD	10-APR-15	FC	AB8270SL+
MC37910-1	SW846 8260C	22-APR-15 22:38	KD			V8260SL+
MC37910-2 Collected: 09-APR-15 12:45 By: DCBT MW6C-ROX-040915			Received: 10-APR-15 By:			
MC37910-2	SW846 8011	17-APR-15 22:22	NK	16-APR-15	FT	V8011SL
MC37910-2	SW846 8270D BY SIM	21-APR-15 12:07	MR	10-APR-15	FC	B8270SIMSL
MC37910-2	SW846 8270D	22-APR-15 10:54	KD	10-APR-15	FC	AB8270SL+
MC37910-2	SW846 8260C	22-APR-15 23:07	KD			V8260SL+
MC37910-3 Collected: 09-APR-15 14:10 By: DCBT MW16-ROX-040915			Received: 10-APR-15 By:			
MC37910-3	SW846 8011	17-APR-15 22:51	NK	16-APR-15	FT	V8011SL
MC37910-3	SW846 8270D BY SIM	21-APR-15 12:33	MR	10-APR-15	FC	B8270SIMSL
MC37910-3	SW846 8270D	22-APR-15 11:18	KD	10-APR-15	FC	AB8270SL+
MC37910-3	SW846 8260C	22-APR-15 23:36	KD			V8260SL+
MC37910-4 Collected: 09-APR-15 15:15 By: DCBT MW24-ROX-040915			Received: 10-APR-15 By:			
MC37910-4	SW846 8011	17-APR-15 23:20	NK	16-APR-15	FT	V8011SL
MC37910-4	SW846 8270D BY SIM	21-APR-15 12:57	MR	10-APR-15	FC	B8270SIMSL
MC37910-4	SW846 8270D	22-APR-15 11:43	KD	10-APR-15	FC	AB8270SL+
MC37910-4	SW846 8260C	23-APR-15 00:04	KD			V8260SL+
MC37910-5 Collected: 09-APR-15 00:00 By: DCBT TB-ROX-040915-HCL			Received: 10-APR-15 By:			
MC37910-5	SW846 8260C	21-APR-15 16:14	KD			V8260SL+
MC37910-6 Collected: 09-APR-15 00:00 By: DCBT TB-ROX-040915-ST			Received: 10-APR-15 By:			

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC37910

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC37910-6	SW846 8011	17-APR-15 23:51	NK	16-APR-15	FT	V8011SL

Accutest Internal Chain of Custody

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Received: 04/10/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC37910-1.1	Walk In Ref #22	Forrest Thompson	04/10/15 16:53	Retrieve from Storage
MC37910-1.3	VOC Ref #3	Todd Bahosh	04/22/15 14:40	Retrieve from Storage
MC37910-1.3	Todd Bahosh	GCMSV	04/22/15 14:40	Load on Instrument
MC37910-1.3	GCMSV	Krysten Dufort	04/23/15 12:47	Unload from Instrument
MC37910-1.3	Krysten Dufort	VOC Ref #3	04/23/15 12:48	Return to Storage
MC37910-1.4	VOC Ref #3	Todd Bahosh	04/21/15 11:19	Retrieve from Storage
MC37910-1.4	Todd Bahosh	GCMSV	04/21/15 11:20	Load on Instrument
MC37910-1.4	GCMSV	Todd Bahosh	04/22/15 08:43	Unload from Instrument
MC37910-1.4	Todd Bahosh	VOC Ref #3	04/22/15 08:43	Return to Storage
MC37910-1.5	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC37910-1.5	Nicole Estey		04/16/15 23:05	Depleted
MC37910-2.1	Walk In Ref #22	Forrest Thompson	04/10/15 16:53	Retrieve from Storage
MC37910-2.3	VOC Ref #3	Todd Bahosh	04/22/15 14:40	Retrieve from Storage
MC37910-2.3	Todd Bahosh	GCMSV	04/22/15 14:40	Load on Instrument
MC37910-2.3	GCMSV	Krysten Dufort	04/23/15 12:47	Unload from Instrument
MC37910-2.3	Krysten Dufort	VOC Ref #3	04/23/15 12:48	Return to Storage
MC37910-2.4	VOC Ref #3	Todd Bahosh	04/21/15 11:19	Retrieve from Storage
MC37910-2.4	Todd Bahosh	GCMSV	04/21/15 11:20	Load on Instrument
MC37910-2.4	GCMSV	Todd Bahosh	04/22/15 08:43	Unload from Instrument
MC37910-2.4	Todd Bahosh	VOC Ref #3	04/22/15 08:43	Return to Storage
MC37910-2.6	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC37910-2.6	Nicole Estey		04/16/15 23:05	Depleted
MC37910-3.1	Walk In Ref #22	Forrest Thompson	04/10/15 16:53	Retrieve from Storage
MC37910-3.3	VOC Ref #3	Todd Bahosh	04/21/15 11:19	Retrieve from Storage
MC37910-3.3	Todd Bahosh	GCMSV	04/21/15 11:20	Load on Instrument
MC37910-3.3	GCMSV	Todd Bahosh	04/22/15 12:34	Unload from Instrument
MC37910-3.3	Todd Bahosh	VOC Ref #3	04/22/15 12:34	Return to Storage
MC37910-3.4	VOC Ref #3	Todd Bahosh	04/22/15 14:40	Retrieve from Storage
MC37910-3.4	Todd Bahosh	GCMSV	04/22/15 14:40	Load on Instrument
MC37910-3.4	GCMSV	Krysten Dufort	04/23/15 12:47	Unload from Instrument
MC37910-3.4	Krysten Dufort	VOC Ref #3	04/23/15 12:48	Return to Storage
MC37910-3.5	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC37910-3.5	Nicole Estey		04/16/15 23:05	Depleted

Accutest Internal Chain of Custody

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Received: 04/10/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC37910-4.1	Walk In Ref #22	Forrest Thompson	04/10/15 16:53	Retrieve from Storage
MC37910-4.3	VOC Ref #3	Todd Bahosh	04/21/15 11:19	Retrieve from Storage
MC37910-4.3	Todd Bahosh	GCMSV	04/21/15 11:20	Load on Instrument
MC37910-4.3	GCMSV	Todd Bahosh	04/22/15 12:34	Unload from Instrument
MC37910-4.3	Todd Bahosh	VOC Ref #3	04/22/15 12:34	Return to Storage
MC37910-4.4	VOC Ref #3	Todd Bahosh	04/22/15 14:40	Retrieve from Storage
MC37910-4.4	Todd Bahosh	GCMSV	04/22/15 14:40	Load on Instrument
MC37910-4.4	GCMSV	Krysten Dufort	04/23/15 12:47	Unload from Instrument
MC37910-4.4	Krysten Dufort	VOC Ref #3	04/23/15 12:48	Return to Storage
MC37910-4.5	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC37910-4.5	Nicole Estey		04/16/15 23:05	Depleted
MC37910-5.2	VOC Ref #3	Todd Bahosh	04/21/15 11:19	Retrieve from Storage
MC37910-5.2	Todd Bahosh	GCMSV	04/21/15 11:20	Load on Instrument
MC37910-5.2	GCMSV	Todd Bahosh	04/22/15 08:43	Unload from Instrument
MC37910-5.2	Todd Bahosh	VOC Ref #3	04/22/15 08:43	Return to Storage
MC37910-6.2	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC37910-6.2	Nicole Estey		04/16/15 23:05	Depleted

New England ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1378-MB	V38241.D	1	04/21/15	KD	n/a	n/a	MSV1378

The QC reported here applies to the following samples: Method: SW846 8260C

MC37910-5

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	

Method Blank Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1378-MB	V38241.D	1	04/21/15	KD	n/a	n/a	MSV1378

The QC reported here applies to the following samples: Method: SW846 8260C

MC37910-5

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

Method Blank Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1378-MB	V38241.D	1	04/21/15	KD	n/a	n/a	MSV1378

The QC reported here applies to the following samples: Method: SW846 8260C

MC37910-5

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	122%	72-133%
2037-26-5	Toluene-D8	106%	85-114%
460-00-4	4-Bromofluorobenzene	97%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

6.1.1

6

Method Blank Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1380-MB	V38299.D	1	04/22/15	KD	n/a	n/a	MSV1380

The QC reported here applies to the following samples: Method: SW846 8260C

MC37910-1, MC37910-2, MC37910-3, MC37910-4

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	

Method Blank Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1380-MB	V38299.D	1	04/22/15	KD	n/a	n/a	MSV1380

The QC reported here applies to the following samples: Method: SW846 8260C

MC37910-1, MC37910-2, MC37910-3, MC37910-4

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

Method Blank Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1380-MB	V38299.D	1	04/22/15	KD	n/a	n/a	MSV1380

The QC reported here applies to the following samples: Method: SW846 8260C

MC37910-1, MC37910-2, MC37910-3, MC37910-4

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	114%	72-133%
2037-26-5	Toluene-D8	101%	85-114%
460-00-4	4-Bromofluorobenzene	102%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

6.1.2

6

Blank Spike Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1380-BS	V38296.D	1	04/22/15	KD	n/a	n/a	MSV1380

The QC reported here applies to the following samples: Method: SW846 8260C

MC37910-1, MC37910-2, MC37910-3, MC37910-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	36.7	73	14-172
107-02-8	Acrolein	250	272	109	10-168
107-13-1	Acrylonitrile	50	47.7	95	41-158
71-43-2	Benzene	50	44.2	88	68-127
108-86-1	Bromobenzene	50	48.9	98	74-124
74-97-5	Bromochloromethane	50	43.6	87	68-135
75-27-4	Bromodichloromethane	50	51.8	104	72-144
75-25-2	Bromoform	50	44.9	90	59-147
74-83-9	Bromomethane	50	50.6	101	34-175
78-93-3	2-Butanone (MEK)	50	40.2	80	43-147
104-51-8	n-Butylbenzene	50	51.9	104	77-136
135-98-8	sec-Butylbenzene	50	51.8	104	75-134
98-06-6	tert-Butylbenzene	50	50.1	100	74-132
75-15-0	Carbon disulfide	50	38.2	76	34-171
56-23-5	Carbon tetrachloride	50	49.5	99	55-153
108-90-7	Chlorobenzene	50	48.7	97	71-123
75-00-3	Chloroethane	50	51.4	103	58-175
110-75-8	2-Chloroethyl vinyl ether	50	41.3	83	44-169
67-66-3	Chloroform	50	48.8	98	67-136
74-87-3	Chloromethane	50	41.6	83	25-182
95-49-8	o-Chlorotoluene	50	50.2	100	72-130
106-43-4	p-Chlorotoluene	50	51.3	103	73-127
124-48-1	Dibromochloromethane	50	45.1	90	73-139
95-50-1	1,2-Dichlorobenzene	50	48.0	96	77-125
541-73-1	1,3-Dichlorobenzene	50	48.3	97	77-124
106-46-7	1,4-Dichlorobenzene	50	47.7	95	73-128
75-71-8	Dichlorodifluoromethane	50	30.5	61	23-157
75-34-3	1,1-Dichloroethane	50	47.5	95	63-145
107-06-2	1,2-Dichloroethane	50	49.6	99	58-145
75-35-4	1,1-Dichloroethene	50	41.8	84	56-158
156-59-2	cis-1,2-Dichloroethene	50	44.2	88	67-133
156-60-5	trans-1,2-Dichloroethene	50	43.9	88	66-136
78-87-5	1,2-Dichloropropane	50	49.8	100	75-133
142-28-9	1,3-Dichloropropane	50	47.4	95	70-127
594-20-7	2,2-Dichloropropane	50	45.8	92	52-163
563-58-6	1,1-Dichloropropene	50	47.5	95	77-140

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1380-BS	V38296.D	1	04/22/15	KD	n/a	n/a	MSV1380

The QC reported here applies to the following samples: Method: SW846 8260C

MC37910-1, MC37910-2, MC37910-3, MC37910-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-01-5	cis-1,3-Dichloropropene	50	44.6	89	74-141
10061-02-6	trans-1,3-Dichloropropene	50	46.3	93	77-143
123-91-1	1,4-Dioxane	250	227	91	30-182
97-63-2	Ethyl methacrylate	50	46.3	93	64-131
100-41-4	Ethylbenzene	50	51.7	103	71-129
87-68-3	Hexachlorobutadiene	50	44.9	90	64-146
591-78-6	2-Hexanone	50	36.8	74	22-163
98-82-8	Isopropylbenzene	50	51.2	102	72-133
99-87-6	p-Isopropyltoluene	50	51.1	102	77-134
1634-04-4	Methyl Tert Butyl Ether	50	48.6	97	46-151
108-10-1	4-Methyl-2-pentanone (MIBK)	50	45.0	90	47-145
74-95-3	Methylene bromide	50	49.2	98	70-132
75-09-2	Methylene chloride	50	43.5	87	55-146
91-20-3	Naphthalene	50	38.1	76	39-176
103-65-1	n-Propylbenzene	50	53.7	107	74-134
100-42-5	Styrene	50	50.4	101	71-134
630-20-6	1,1,1,2-Tetrachloroethane	50	45.6	91	70-137
79-34-5	1,1,2,2-Tetrachloroethane	50	51.4	103	58-145
127-18-4	Tetrachloroethene	50	47.6	95	63-137
108-88-3	Toluene	50	50.2	100	75-126
87-61-6	1,2,3-Trichlorobenzene	50	42.1	84	27-181
120-82-1	1,2,4-Trichlorobenzene	50	42.7	85	40-176
71-55-6	1,1,1-Trichloroethane	50	46.5	93	68-144
79-00-5	1,1,2-Trichloroethane	50	52.5	105	72-133
79-01-6	Trichloroethene	50	46.6	93	73-126
75-69-4	Trichlorofluoromethane	50	49.4	99	43-152
96-18-4	1,2,3-Trichloropropane	50	45.1	90	58-141
95-63-6	1,2,4-Trimethylbenzene	50	51.4	103	76-129
108-67-8	1,3,5-Trimethylbenzene	50	51.3	103	71-127
108-05-4	Vinyl Acetate	50	54.6	109	10-170
75-01-4	Vinyl chloride	50	43.5	87	36-167
	m,p-Xylene	100	102	102	68-130
95-47-6	o-Xylene	50	49.6	99	69-126
1330-20-7	Xylene (total)	150	151	101	67-129

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1380-BS	V38296.D	1	04/22/15	KD	n/a	n/a	MSV1380

The QC reported here applies to the following samples: Method: SW846 8260C

MC37910-1, MC37910-2, MC37910-3, MC37910-4

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	104%	72-133%
2037-26-5	Toluene-D8	103%	85-114%
460-00-4	4-Bromofluorobenzene	103%	70-134%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1378-BS	V38238.D	1	04/21/15	KD	n/a	n/a	MSV1378
MSV1378-BSD	V38239.D	1	04/21/15	KD	n/a	n/a	MSV1378

The QC reported here applies to the following samples: Method: SW846 8260C

MC37910-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	63.7	127	67.3	135	5	14-172/25
107-02-8	Acrolein	250	308	123	312	125	1	10-168/25
107-13-1	Acrylonitrile	50	49.5	99	51.3	103	4	41-158/25
71-43-2	Benzene	50	47.9	96	48.2	96	1	68-127/25
108-86-1	Bromobenzene	50	42.5	85	43.0	86	1	74-124/25
74-97-5	Bromochloromethane	50	50.2	100	51.0	102	2	68-135/25
75-27-4	Bromodichloromethane	50	56.3	113	56.7	113	1	72-144/25
75-25-2	Bromoform	50	44.3	89	44.6	89	1	59-147/25
74-83-9	Bromomethane	50	56.2	112	59.5	119	6	34-175/25
78-93-3	2-Butanone (MEK)	50	49.5	99	51.5	103	4	43-147/25
104-51-8	n-Butylbenzene	50	43.9	88	44.5	89	1	77-136/25
135-98-8	sec-Butylbenzene	50	43.1	86	44.1	88	2	75-134/25
98-06-6	tert-Butylbenzene	50	40.8	82	41.2	82	1	74-132/25
75-15-0	Carbon disulfide	50	49.4	99	51.9	104	5	34-171/25
56-23-5	Carbon tetrachloride	50	54.9	110	55.9	112	2	55-153/25
108-90-7	Chlorobenzene	50	45.1	90	45.5	91	1	71-123/25
75-00-3	Chloroethane	50	54.5	109	59.7	119	9	58-175/25
110-75-8	2-Chloroethyl vinyl ether	50	45.6	91	45.8	92	0	44-169/25
67-66-3	Chloroform	50	54.3	109	54.8	110	1	67-136/25
74-87-3	Chloromethane	50	48.9	98	50.9	102	4	25-182/25
95-49-8	o-Chlorotoluene	50	42.4	85	43.2	86	2	72-130/25
106-43-4	p-Chlorotoluene	50	43.2	86	43.7	87	1	73-127/25
124-48-1	Dibromochloromethane	50	43.5	87	44.0	88	1	73-139/25
95-50-1	1,2-Dichlorobenzene	50	41.1	82	41.9	84	2	77-125/25
541-73-1	1,3-Dichlorobenzene	50	41.9	84	42.4	85	1	77-124/25
106-46-7	1,4-Dichlorobenzene	50	41.3	83	41.5	83	0	73-128/25
75-71-8	Dichlorodifluoromethane	50	36.7	73	39.2	78	7	23-157/25
75-34-3	1,1-Dichloroethane	50	53.4	107	54.8	110	3	63-145/25
107-06-2	1,2-Dichloroethane	50	52.0	104	52.2	104	0	58-145/25
75-35-4	1,1-Dichloroethene	50	51.2	102	53.7	107	5	56-158/25
156-59-2	cis-1,2-Dichloroethene	50	50.9	102	51.6	103	1	67-133/25
156-60-5	trans-1,2-Dichloroethene	50	51.3	103	53.3	107	4	66-136/25
78-87-5	1,2-Dichloropropane	50	53.0	106	54.0	108	2	75-133/25
142-28-9	1,3-Dichloropropane	50	42.4	85	42.7	85	1	70-127/25
594-20-7	2,2-Dichloropropane	50	55.4	111	56.5	113	2	52-163/25
563-58-6	1,1-Dichloropropene	50	51.0	102	50.8	102	0	77-140/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1378-BS	V38238.D	1	04/21/15	KD	n/a	n/a	MSV1378
MSV1378-BSD	V38239.D	1	04/21/15	KD	n/a	n/a	MSV1378

The QC reported here applies to the following samples: Method: SW846 8260C

MC37910-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	50	49.0	98	49.9	100	2	74-141/25
10061-02-6	trans-1,3-Dichloropropene	50	51.1	102	50.9	102	0	77-143/25
123-91-1	1,4-Dioxane	250	218	87	192	77	13	30-182/25
97-63-2	Ethyl methacrylate	50	47.2	94	48.8	98	3	64-131/25
100-41-4	Ethylbenzene	50	47.1	94	47.5	95	1	71-129/25
87-68-3	Hexachlorobutadiene	50	39.7	79	40.2	80	1	64-146/25
591-78-6	2-Hexanone	50	42.1	84	42.0	84	0	22-163/25
98-82-8	Isopropylbenzene	50	42.9	86	44.1	88	3	72-133/25
99-87-6	p-Isopropyltoluene	50	43.5	87	44.5	89	2	77-134/25
1634-04-4	Methyl Tert Butyl Ether	50	55.1	110	58.1	116	5	46-151/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	45.3	91	47.0	94	4	47-145/25
74-95-3	Methylene bromide	50	51.7	103	52.6	105	2	70-132/25
75-09-2	Methylene chloride	50	51.2	102	53.0	106	3	55-146/25
91-20-3	Naphthalene	50	31.6	63	32.7	65	3	39-176/25
103-65-1	n-Propylbenzene	50	45.3	91	45.7	91	1	74-134/25
100-42-5	Styrene	50	46.5	93	46.7	93	0	71-134/25
630-20-6	1,1,1,2-Tetrachloroethane	50	42.8	86	43.2	86	1	70-137/25
79-34-5	1,1,2,2-Tetrachloroethane	50	42.1	84	43.1	86	2	58-145/25
127-18-4	Tetrachloroethene	50	44.1	88	44.9	90	2	63-137/25
108-88-3	Toluene	50	52.1	104	53.2	106	2	75-126/25
87-61-6	1,2,3-Trichlorobenzene	50	34.5	69	36.0	72	4	27-181/25
120-82-1	1,2,4-Trichlorobenzene	50	36.2	72	37.5	75	4	40-176/25
71-55-6	1,1,1-Trichloroethane	50	52.5	105	54.5	109	4	68-144/25
79-00-5	1,1,2-Trichloroethane	50	53.7	107	55.5	111	3	72-133/25
79-01-6	Trichloroethene	50	50.5	101	50.5	101	0	73-126/25
75-69-4	Trichlorofluoromethane	50	56.7	113	58.9	118	4	43-152/25
96-18-4	1,2,3-Trichloropropane	50	36.9	74	37.2	74	1	58-141/25
95-63-6	1,2,4-Trimethylbenzene	50	44.0	88	44.9	90	2	76-129/25
108-67-8	1,3,5-Trimethylbenzene	50	43.3	87	44.2	88	2	71-127/25
108-05-4	Vinyl Acetate	50	58.4	117	60.2	120	3	10-170/25
75-01-4	Vinyl chloride	50	48.5	97	51.3	103	6	36-167/25
	m,p-Xylene	100	92.4	92	93.9	94	2	68-130/25
95-47-6	o-Xylene	50	45.2	90	46.7	93	3	69-126/25
1330-20-7	Xylene (total)	150	138	92	141	94	2	67-129/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1378-BS	V38238.D	1	04/21/15	KD	n/a	n/a	MSV1378
MSV1378-BSD	V38239.D	1	04/21/15	KD	n/a	n/a	MSV1378

The QC reported here applies to the following samples: Method: SW846 8260C

MC37910-5

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	109%	108%	72-133%
2037-26-5	Toluene-D8	108%	108%	85-114%
460-00-4	4-Bromofluorobenzene	100%	99%	70-134%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D69816-1MS	V38247.D	5	04/21/15	KD	n/a	n/a	MSV1378
D69816-1MSD	V38248.D	5	04/21/15	KD	n/a	n/a	MSV1378
D69816-1	V38246.D	1	04/21/15	KD	n/a	n/a	MSV1378

The QC reported here applies to the following samples: Method: SW846 8260C

MC37910-5

CAS No.	Compound	D69816-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	21.7		250	164	57	250	168	59	2	10-135/30
107-02-8	Acrolein	ND		1250	1330	106	1250	1350	108	1	10-175/30
107-13-1	Acrylonitrile	ND		250	224	90	250	224	90	0	37-163/30
71-43-2	Benzene	ND		250	218	87	250	225	90	3	61-138/30
108-86-1	Bromobenzene	ND		250	243	97	250	252	101	4	71-126/30
74-97-5	Bromochloromethane	ND		250	218	87	250	227	91	4	70-136/30
75-27-4	Bromodichloromethane	ND		250	247	99	250	258	103	4	73-146/30
75-25-2	Bromoform	ND		250	230	92	250	231	92	0	54-147/30
74-83-9	Bromomethane	ND		250	249	100	250	253	101	2	20-171/30
78-93-3	2-Butanone (MEK)	ND		250	178	71	250	186	74	4	33-127/30
104-51-8	n-Butylbenzene	ND		250	249	100	250	255	102	2	69-138/30
135-98-8	sec-Butylbenzene	ND		250	245	98	250	259	104	6	71-137/30
98-06-6	tert-Butylbenzene	ND		250	227	91	250	244	98	7	68-137/30
75-15-0	Carbon disulfide	ND		250	225	90	250	231	92	3	29-178/30
56-23-5	Carbon tetrachloride	ND		250	240	96	250	249	100	4	57-155/30
108-90-7	Chlorobenzene	ND		250	242	97	250	247	99	2	69-126/30
75-00-3	Chloroethane	ND		250	254	102	250	257	103	1	57-182/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	ND	0* [a]	250	ND	0* [a]	nc	10-200/30
67-66-3	Chloroform	0.84	J	250	230	92	250	239	95	4	66-142/30
74-87-3	Chloromethane	ND		250	211	84	250	210	84	0	18-182/30
95-49-8	o-Chlorotoluene	ND		250	242	97	250	253	101	4	60-145/30
106-43-4	p-Chlorotoluene	ND		250	242	97	250	254	102	5	64-138/30
124-48-1	Dibromochloromethane	ND		250	229	92	250	230	92	0	71-138/30
95-50-1	1,2-Dichlorobenzene	ND		250	234	94	250	242	97	3	75-125/30
541-73-1	1,3-Dichlorobenzene	ND		250	239	96	250	246	98	3	74-125/30
106-46-7	1,4-Dichlorobenzene	ND		250	233	93	250	243	97	4	72-128/30
75-71-8	Dichlorodifluoromethane	ND		250	162	65	250	154	62	5	23-159/30
75-34-3	1,1-Dichloroethane	ND		250	235	94	250	243	97	3	63-150/30
107-06-2	1,2-Dichloroethane	ND		250	229	92	250	237	95	3	57-150/30
75-35-4	1,1-Dichloroethene	ND		250	235	94	250	243	97	3	53-165/30
156-59-2	cis-1,2-Dichloroethene	ND		250	222	89	250	233	93	5	66-138/30
156-60-5	trans-1,2-Dichloroethene	ND		250	229	92	250	237	95	3	65-141/30
78-87-5	1,2-Dichloropropane	ND		250	242	97	250	250	100	3	76-136/30
142-28-9	1,3-Dichloropropane	ND		250	230	92	250	233	93	1	71-127/30
594-20-7	2,2-Dichloropropane	ND		250	239	96	250	246	98	3	33-175/30
563-58-6	1,1-Dichloropropene	ND		250	225	90	250	238	95	6	76-145/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D69816-1MS	V38247.D	5	04/21/15	KD	n/a	n/a	MSV1378
D69816-1MSD	V38248.D	5	04/21/15	KD	n/a	n/a	MSV1378
D69816-1	V38246.D	1	04/21/15	KD	n/a	n/a	MSV1378

The QC reported here applies to the following samples: Method: SW846 8260C

MC37910-5

CAS No.	Compound	D69816-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		250	216	86	250	225	90	4	75-137/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	223	89	250	235	94	5	77-139/30
123-91-1	1,4-Dioxane	ND		1250	1040	83	1250	1030	82	1	29-167/30
97-63-2	Ethyl methacrylate	ND		250	226	90	250	237	95	5	60-135/30
100-41-4	Ethylbenzene	ND		250	254	102	250	257	103	1	61-137/30
87-68-3	Hexachlorobutadiene	ND		250	218	87	250	232	93	6	59-141/30
591-78-6	2-Hexanone	ND		250	161	64	250	167	67	4	12-141/30
98-82-8	Isopropylbenzene	ND		250	248	99	250	262	105	5	64-141/30
99-87-6	p-Isopropyltoluene	ND		250	249	100	250	260	104	4	73-135/30
1634-04-4	Methyl Tert Butyl Ether	ND		250	250	100	250	258	103	3	34-160/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	212	85	250	220	88	4	47-143/30
74-95-3	Methylene bromide	ND		250	232	93	250	238	95	3	73-132/30
75-09-2	Methylene chloride	ND		250	229	92	250	233	93	2	52-154/30
91-20-3	Naphthalene	ND		250	180	72	250	193	77	7	21-185/30
103-65-1	n-Propylbenzene	ND		250	256	102	250	269	108	5	66-141/30
100-42-5	Styrene	ND		250	250	100	250	252	101	1	60-142/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	228	91	250	231	92	1	69-138/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	245	98	250	254	102	4	58-147/30
127-18-4	Tetrachloroethene	0.26	J	250	237	95	250	246	98	4	60-140/30
108-88-3	Toluene	0.66	J	250	238	95	250	245	98	3	74-131/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	194	78	250	211	84	8	12-184/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	208	83	250	220	88	6	30-175/30
71-55-6	1,1,1-Trichloroethane	ND		250	228	91	250	235	94	3	67-151/30
79-00-5	1,1,2-Trichloroethane	ND		250	246	98	250	256	102	4	73-134/30
79-01-6	Trichloroethene	ND		250	226	90	250	235	94	4	68-133/30
75-69-4	Trichlorofluoromethane	ND		250	236	94	250	241	96	2	40-159/30
96-18-4	1,2,3-Trichloropropane	ND		250	215	86	250	221	88	3	54-141/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	251	100	250	262	105	4	62-142/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	250	100	250	260	104	4	62-133/30
108-05-4	Vinyl Acetate	ND		250	257	103	250	265	106	3	10-169/30
75-01-4	Vinyl chloride	ND		250	212	85	250	215	86	1	29-176/30
	m,p-Xylene	ND		500	502	100	500	505	101	1	58-139/30
95-47-6	o-Xylene	ND		250	252	101	250	252	101	0	61-135/30
1330-20-7	Xylene (total)	0.62	J	750	754	100	750	758	101	1	60-136/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D69816-1MS	V38247.D	5	04/21/15	KD	n/a	n/a	MSV1378
D69816-1MSD	V38248.D	5	04/21/15	KD	n/a	n/a	MSV1378
D69816-1	V38246.D	1	04/21/15	KD	n/a	n/a	MSV1378

The QC reported here applies to the following samples: Method: SW846 8260C

MC37910-5

CAS No.	Surrogate Recoveries	MS	MSD	D69816-1	Limits
1868-53-7	Dibromofluoromethane	101%	101%	101%	72-133%
2037-26-5	Toluene-D8	103%	104%	100%	85-114%
460-00-4	4-Bromofluorobenzene	100%	102%	100%	70-134%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC38044-1MS	V38319.D	5	04/23/15	KD	n/a	n/a	MSV1380
MC38044-1MSD	V38320.D	5	04/23/15	KD	n/a	n/a	MSV1380
MC38044-1	V38302.D	1	04/22/15	KD	n/a	n/a	MSV1380

The QC reported here applies to the following samples: Method: SW846 8260C

MC37910-1, MC37910-2, MC37910-3, MC37910-4

CAS No.	Compound	MC38044-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	10 U		250	131	52	250	139	56	6	10-135/30
107-02-8	Acrolein	25 U		1250	1300	104	1250	1350	108	4	10-175/30
107-13-1	Acrylonitrile	5.0 U		250	214	86	250	223	89	4	37-163/30
71-43-2	Benzene	0.42	J	250	204	81	250	201	80	1	61-138/30
108-86-1	Bromobenzene	5.0 U		250	228	91	250	235	94	3	71-126/30
74-97-5	Bromochloromethane	5.0 U		250	196	78	250	203	81	4	70-136/30
75-27-4	Bromodichloromethane	1.0 U		250	264	106	250	259	104	2	73-146/30
75-25-2	Bromoform	1.0 U		250	220	88	250	216	86	2	54-147/30
74-83-9	Bromomethane	2.0 U		250	266	106	250	258	103	3	20-171/30
78-93-3	2-Butanone (MEK)	5.0 U		250	159	64	250	161	64	1	33-127/30
104-51-8	n-Butylbenzene	5.0 U		250	255	102	250	253	101	1	69-138/30
135-98-8	sec-Butylbenzene	5.0 U		250	252	101	250	249	100	1	71-137/30
98-06-6	tert-Butylbenzene	5.0 U		250	248	99	250	248	99	0	68-137/30
75-15-0	Carbon disulfide	5.0 U		250	139	56	250	135	54	3	29-178/30
56-23-5	Carbon tetrachloride	1.0 U		250	239	96	250	229	92	4	57-155/30
108-90-7	Chlorobenzene	1.0 U		250	235	94	250	234	94	0	69-126/30
75-00-3	Chloroethane	2.0 U		250	264	106	250	264	106	0	57-182/30
110-75-8	2-Chloroethyl vinyl ether	5.0 U		250	ND	0* [a]	250	ND	0* [a]	nc	10-200/30
67-66-3	Chloroform	1.0 U		250	230	92	250	233	93	1	66-142/30
74-87-3	Chloromethane	2.0 U		250	236	94	250	219	88	7	18-182/30
95-49-8	o-Chlorotoluene	5.0 U		250	244	98	250	244	98	0	60-145/30
106-43-4	p-Chlorotoluene	5.0 U		250	251	100	250	253	101	1	64-138/30
124-48-1	Dibromochloromethane	1.0 U		250	222	89	250	221	88	0	71-138/30
95-50-1	1,2-Dichlorobenzene	1.0 U		250	234	94	250	236	94	1	75-125/30
541-73-1	1,3-Dichlorobenzene	1.0 U		250	236	94	250	238	95	1	74-125/30
106-46-7	1,4-Dichlorobenzene	1.0 U		250	231	92	250	234	94	1	72-128/30
75-71-8	Dichlorodifluoromethane	2.0 U		250	189	76	250	183	73	3	23-159/30
75-34-3	1,1-Dichloroethane	1.0 U		250	208	83	250	210	84	1	63-150/30
107-06-2	1,2-Dichloroethane	1.0 U		250	242	97	250	244	98	1	57-150/30
75-35-4	1,1-Dichloroethene	1.0 U		250	158	63	250	160	64	1	53-165/30
156-59-2	cis-1,2-Dichloroethene	1.0 U		250	196	78	250	197	79	1	66-138/30
156-60-5	trans-1,2-Dichloroethene	1.0 U		250	185	74	250	187	75	1	65-141/30
78-87-5	1,2-Dichloropropane	2.0 U		250	238	95	250	236	94	1	76-136/30
142-28-9	1,3-Dichloropropane	5.0 U		250	222	89	250	230	92	4	71-127/30
594-20-7	2,2-Dichloropropane	5.0 U		250	168	67	250	167	67	1	33-175/30
563-58-6	1,1-Dichloropropene	5.0 U		250	215	86	250	209	84	3	76-145/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC38044-1MS	V38319.D	5	04/23/15	KD	n/a	n/a	MSV1380
MC38044-1MSD	V38320.D	5	04/23/15	KD	n/a	n/a	MSV1380
MC38044-1	V38302.D	1	04/22/15	KD	n/a	n/a	MSV1380

The QC reported here applies to the following samples: Method: SW846 8260C

MC37910-1, MC37910-2, MC37910-3, MC37910-4

CAS No.	Compound	MC38044-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	0.50 U		250	193	77	250	195	78	1	75-137/30
10061-02-6	trans-1,3-Dichloropropene	0.50 U		250	210	84	250	216	86	3	77-139/30
123-91-1	1,4-Dioxane	25 U		1250	885	71	1250	1010	81	13	29-167/30
97-63-2	Ethyl methacrylate	5.0 U		250	200	80	250	212	85	6	60-135/30
100-41-4	Ethylbenzene	1.0 U		250	252	101	250	245	98	3	61-137/30
87-68-3	Hexachlorobutadiene	5.0 U		250	213	85	250	216	86	1	59-141/30
591-78-6	2-Hexanone	5.0 U		250	153	61	250	163	65	6	12-141/30
98-82-8	Isopropylbenzene	5.0 U		250	244	98	250	242	97	1	64-141/30
99-87-6	p-Isopropyltoluene	5.0 U		250	247	99	250	246	98	0	73-135/30
1634-04-4	Methyl Tert Butyl Ether	1.0 U		250	188	75	250	200	80	6	34-160/30
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0 U		250	193	77	250	205	82	6	47-143/30
74-95-3	Methylene bromide	5.0 U		250	237	95	250	238	95	0	73-132/30
75-09-2	Methylene chloride	2.0 U		250	189	76	250	192	77	2	52-154/30
91-20-3	Naphthalene	5.0 U		250	175	70	250	184	74	5	21-185/30
103-65-1	n-Propylbenzene	5.0 U		250	262	105	250	260	104	1	66-141/30
100-42-5	Styrene	5.0 U		250	245	98	250	244	98	0	60-142/30
630-20-6	1,1,1,2-Tetrachloroethane	1.0 U		250	230	92	250	225	90	2	69-138/30
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U		250	244	98	250	253	101	4	58-147/30
127-18-4	Tetrachloroethene	0.50 U		250	219	88	250	217	87	1	60-140/30
108-88-3	Toluene	1.0 U		250	237	95	250	231	92	3	74-131/30
87-61-6	1,2,3-Trichlorobenzene	5.0 U		250	194	78	250	202	81	4	12-184/30
120-82-1	1,2,4-Trichlorobenzene	5.0 U		250	200	80	250	207	83	3	30-175/30
71-55-6	1,1,1-Trichloroethane	1.0 U		250	214	86	250	208	83	3	67-151/30
79-00-5	1,1,2-Trichloroethane	1.0 U		250	247	99	250	248	99	0	73-134/30
79-01-6	Trichloroethene	0.50 U		250	217	87	250	214	86	1	68-133/30
75-69-4	Trichlorofluoromethane	1.0 U		250	275	110	250	267	107	3	40-159/30
96-18-4	1,2,3-Trichloropropane	5.0 U		250	210	84	250	220	88	5	54-141/30
95-63-6	1,2,4-Trimethylbenzene	5.0 U		250	253	101	250	249	100	2	62-142/30
108-67-8	1,3,5-Trimethylbenzene	5.0 U		250	248	99	250	245	98	1	62-133/30
108-05-4	Vinyl Acetate	5.0 U		250	243	97	250	245	98	1	10-169/30
75-01-4	Vinyl chloride	1.0 U		250	229	92	250	223	89	3	29-176/30
	m,p-Xylene	1.0 U		500	489	98	500	477	95	2	58-139/30
95-47-6	o-Xylene	1.0 U		250	239	96	250	235	94	2	61-135/30
1330-20-7	Xylene (total)	1.0 U		750	728	97	750	712	95	2	60-136/30

* = Outside of Control Limits.

6.4.2

6

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC38044-1MS	V38319.D	5	04/23/15	KD	n/a	n/a	MSV1380
MC38044-1MSD	V38320.D	5	04/23/15	KD	n/a	n/a	MSV1380
MC38044-1	V38302.D	1	04/22/15	KD	n/a	n/a	MSV1380

The QC reported here applies to the following samples: Method: SW846 8260C

MC37910-1, MC37910-2, MC37910-3, MC37910-4

CAS No.	Surrogate Recoveries	MS	MSD	MC38044-1	Limits
1868-53-7	Dibromofluoromethane	107%	108%	113%	72-133%
2037-26-5	Toluene-D8	105%	104%	101%	85-114%
460-00-4	4-Bromofluorobenzene	100%	102%	101%	70-134%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Volatile Internal Standard Area Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSV1378-CC1332	Injection Date:	04/21/15
Lab File ID:	V38238.D	Injection Time:	10:01
Instrument ID:	GCMSV	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	415194	6.57	681273	7.75	402063	11.09	474500	13.30	88636	3.53
Upper Limit [a]	830388	7.07	1362546	8.25	804126	11.59	949000	13.80	177272	4.03
Lower Limit [b]	207597	6.07	340637	7.25	201032	10.59	237250	12.80	44318	3.03
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV1378-BS	415194	6.57	681273	7.75	402063	11.09	474500	13.30	88636	3.53
MSV1378-BSD	414466	6.57	686625	7.76	407247	11.09	484673	13.30	92445	3.53
MSV1378-MB	241298	6.57	426771	7.76	263868	11.09	300181	13.30	53612	3.53
ZZZZZZ	505248	6.57	826757	7.75	433528	11.09	460128	13.30	80524	3.52
D69816-1	501356	6.57	811285	7.75	402435	11.09	429128	13.30	76105	3.52
D69816-1MS	517746	6.57	823882	7.75	410038	11.09	461126	13.30	85744	3.53
D69816-1MSD	524389	6.57	824496	7.75	416130	11.09	447204	13.30	90382	3.53
ZZZZZZ	495984	6.57	814711	7.75	393674	11.09	418333	13.30	81997	3.52
ZZZZZZ	456487	6.57	757892	7.75	372427	11.09	400093	13.30	82020	3.53
MC37910-5	424545	6.57	702539	7.75	353127	11.09	375453	13.30	75105	3.53
ZZZZZZ	417465	6.57	706591	7.75	353652	11.09	368036	13.30	70576	3.52
ZZZZZZ	406814	6.57	691545	7.75	353190	11.09	362700	13.30	71735	3.52
ZZZZZZ	370107	6.57	629082	7.75	314695	11.09	336116	13.30	63290	3.53
ZZZZZZ	382571	6.57	657272	7.75	339995	11.09	349043	13.30	69052	3.52
ZZZZZZ	386715	6.57	634618	7.75	324011	11.09	338137	13.30	71399	3.52
ZZZZZZ	370698	6.57	626872	7.75	328399	11.09	344594	13.30	64258	3.53
ZZZZZZ	370397	6.56	636239	7.75	328951	11.09	370519	13.30	61563	3.52
ZZZZZZ	376120	6.56	632170	7.75	327318	11.09	329992	13.30	63049	3.51
ZZZZZZ	357949	6.57	614551	7.75	320759	11.09	334497	13.30	62333	3.52
ZZZZZZ	493692	6.57	823423	7.75	427415	11.09	553932	13.30	288468[c]	3.53

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Outside control limits. Target analytes not associated with this internal standard.

Volatile Internal Standard Area Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSV1380-CC1332	Injection Date:	04/22/15
Lab File ID:	V38296.D	Injection Time:	13:35
Instrument ID:	GCMSV	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	464914	6.56	735411	7.75	369699	11.09	404682	13.30	84371	3.52
Upper Limit [a]	929828	7.06	1470822	8.25	739398	11.59	809364	13.80	168742	4.02
Lower Limit [b]	232457	6.06	367706	7.25	184850	10.59	202341	12.80	42186	3.02
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV1380-BS	464914	6.56	735411	7.75	369699	11.09	404682	13.30	84371	3.52
MSV1380-MB	385758	6.57	651640	7.75	330971	11.09	340357	13.30	72471	3.53
ZZZZZZ	392366	6.57	654621	7.75	336212	11.09	362940	13.30	76676	3.53
ZZZZZZ	409347	6.57	693062	7.75	344161	11.09	375117	13.30	81469	3.53
MC38044-1	385027	6.57	635910	7.76	326537	11.09	341970	13.30	74197	3.53
ZZZZZZ	377447	6.57	652886	7.75	337375	11.09	339008	13.30	66816	3.52
ZZZZZZ	364893	6.57	630400	7.75	319548	11.09	333456	13.30	62753	3.52
ZZZZZZ	365243	6.57	624404	7.75	326355	11.09	330422	13.30	62004	3.52
ZZZZZZ	328779	6.57	561492	7.75	300033	11.09	308267	13.30	60285	3.53
ZZZZZZ	337740	6.57	585014	7.76	303553	11.09	314590	13.30	57594	3.53
ZZZZZZ	324164	6.57	563310	7.76	298890	11.09	305156	13.30	55066	3.53
ZZZZZZ	318629	6.57	557213	7.76	294518	11.09	294717	13.30	54789	3.53
ZZZZZZ	324683	6.58	566261	7.76	303524	11.09	311822	13.31	56910	3.53
ZZZZZZ	310896	6.58	543918	7.76	282394	11.09	294981	13.31	52086	3.53
ZZZZZZ	307600	6.58	544165	7.76	281324	11.09	290850	13.31	51495	3.53
ZZZZZZ	308919	6.57	543506	7.76	286787	11.09	289940	13.31	51190	3.53
ZZZZZZ	310858	6.57	547196	7.76	286741	11.09	289249	13.31	50509	3.52
MC37910-1	302966	6.58	530265	7.76	281992	11.10	284941	13.31	49119	3.53
MC37910-2	310273	6.57	542918	7.76	287645	11.10	292059	13.31	54244	3.53
MC37910-3	318931	6.57	570982	7.75	298901	11.09	297719	13.31	56189	3.52
MC37910-4	310957	6.57	544509	7.76	287820	11.09	289345	13.31	51336	3.53
MC38044-1MS	390548	6.57	604512	7.76	310339	11.09	350585	13.30	60040	3.53
MC38044-1MSD	409128	6.57	644604	7.75	327431	11.09	360986	13.30	64315	3.52
MSV1380-ECC1332	420724	6.57	663301	7.75	330965	11.09	361852	13.30	64176	3.53

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8260C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC37910-1	V38315.D	128	105	101
MC37910-2	V38316.D	126	106	102
MC37910-3	V38317.D	126	104	102
MC37910-4	V38318.D	125	105	101
MC37910-5	V38251.D	109	102	99
D69816-1MS	V38247.D	101	103	100
D69816-1MSD	V38248.D	101	104	102
MC38044-1MS	V38319.D	107	105	100
MC38044-1MSD	V38320.D	108	104	102
MSV1378-BS	V38238.D	109	108	100
MSV1378-BSD	V38239.D	108	108	99
MSV1378-MB	V38241.D	122	106	97
MSV1380-BS	V38296.D	104	103	103
MSV1380-MB	V38299.D	114	101	102

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	72-133%
S2 = Toluene-D8	85-114%
S3 = 4-Bromofluorobenzene	70-134%

6.6.1

6

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42630-MB	W21559.D	1	04/21/15	KD	04/10/15	OP42630	MSW922

The QC reported here applies to the following samples: Method: SW846 8270D

MC37910-1, MC37910-2, MC37910-3, MC37910-4

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.5	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.29	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.51	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.47	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.34	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.59	ug/l	
95-48-7	2-Methylphenol	ND	10	0.30	ug/l	
	3&4-Methylphenol	ND	10	0.44	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.47	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.35	ug/l	
108-95-2	Phenol	ND	5.0	0.32	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.45	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.45	ug/l	
62-53-3	Aniline	ND	10	0.46	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.25	ug/l	
85-68-7	Butyl benzyl phthalate	0.42	5.0	0.24	ug/l	J
100-51-6	Benzyl Alcohol	ND	10	0.32	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.34	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.49	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.42	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.42	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.26	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.37	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.38	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.53	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	0.28	5.0	0.27	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.0	0.29	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.27	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.24	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.32	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.24	ug/l	

7.1.1

7

Method Blank Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42630-MB	W21559.D	1	04/21/15	KD	04/10/15	OP42630	MSW922

The QC reported here applies to the following samples: Method: SW846 8270D

MC37910-1, MC37910-2, MC37910-3, MC37910-4

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.28	ug/l	
78-59-1	Isophorone	ND	5.0	0.47	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.36	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.40	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.51	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.48	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.25	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.25	ug/l	
110-86-1	Pyridine	ND	10	0.36	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	33%	10-79%
4165-62-2	Phenol-d5	26%	10-72%
118-79-6	2,4,6-Tribromophenol	68%	35-138%
4165-60-0	Nitrobenzene-d5	51%	30-116%
321-60-8	2-Fluorobiphenyl	47%	35-107%
1718-51-0	Terphenyl-d14	75%	43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

Method Blank Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42631-MB	I95235.D	1	04/20/15	MR	04/10/15	OP42631	MSI3562

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC37910-1, MC37910-2, MC37910-3, MC37910-4

7.1.2

7

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.0075	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.0084	ug/l	
120-12-7	Anthracene	ND	0.10	0.0098	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.015	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.019	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.013	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.0074	ug/l	
86-73-7	Fluorene	ND	0.10	0.015	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.020	ug/l	
90-12-0	1-Methylnaphthalene	0.022	2.0	0.012	ug/l	J
91-57-6	2-Methylnaphthalene	0.023	2.0	0.011	ug/l	J
85-01-8	Phenanthrene	ND	0.050	0.011	ug/l	
129-00-0	Pyrene	ND	0.10	0.0085	ug/l	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	50%	26-121%
321-60-8	2-Fluorobiphenyl	44%	28-107%
1718-51-0	Terphenyl-d14	78%	29-129%

Blank Spike Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42630-BS	W21560.D	1	04/21/15	KD	04/10/15	OP42630	MSW922

The QC reported here applies to the following samples: Method: SW846 8270D

MC37910-1, MC37910-2, MC37910-3, MC37910-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	50	20.2	40	10-73
95-57-8	2-Chlorophenol	50	41.0	82	47-106
59-50-7	4-Chloro-3-methyl phenol	50	45.5	91	50-111
120-83-2	2,4-Dichlorophenol	50	45.6	91	53-114
105-67-9	2,4-Dimethylphenol	50	39.7	79	23-110
51-28-5	2,4-Dinitrophenol	50	35.8	72	10-156
534-52-1	4,6-Dinitro-o-cresol	50	43.1	86	17-159
95-48-7	2-Methylphenol	50	37.4	75	40-92
	3&4-Methylphenol	100	75.2	75	38-86
88-75-5	2-Nitrophenol	50	47.8	96	53-115
100-02-7	4-Nitrophenol	50	24.1	48	10-83
87-86-5	Pentachlorophenol	50	41.5	83	41-122
108-95-2	Phenol	50	23.2	46	15-55
95-95-4	2,4,5-Trichlorophenol	50	48.1	96	52-120
88-06-2	2,4,6-Trichlorophenol	50	48.9	98	53-119
62-53-3	Aniline	50	31.6	63	26-87
101-55-3	4-Bromophenyl phenyl ether	50	50.5	101	65-127
85-68-7	Butyl benzyl phthalate	50	49.9	100	68-128
100-51-6	Benzyl Alcohol	50	42.5	85	13-108
91-58-7	2-Chloronaphthalene	50	48.0	96	58-120
106-47-8	4-Chloroaniline	50	42.5	85	48-106
111-91-1	bis(2-Chloroethoxy)methane	50	46.1	92	42-118
111-44-4	bis(2-Chloroethyl)ether	50	43.3	87	35-123
108-60-1	bis(2-Chloroisopropyl)ether	50	45.9	92	37-160
7005-72-3	4-Chlorophenyl phenyl ether	50	49.1	98	57-121
122-66-7	1,2-Diphenylhydrazine	50	49.6	99	54-128
121-14-2	2,4-Dinitrotoluene	50	52.5	105	64-127
606-20-2	2,6-Dinitrotoluene	50	49.5	99	55-135
91-94-1	3,3'-Dichlorobenzidine	50	45.7	91	49-141
132-64-9	Dibenzofuran	50	46.9	94	60-107
84-74-2	Di-n-butyl phthalate	50	47.9	96	68-117
117-84-0	Di-n-octyl phthalate	50	48.9	98	60-139
84-66-2	Diethyl phthalate	50	49.2	98	51-127
131-11-3	Dimethyl phthalate	50	49.3	99	22-147
117-81-7	bis(2-Ethylhexyl)phthalate	50	52.0	104	69-133
118-74-1	Hexachlorobenzene	50	50.5	101	62-131

* = Outside of Control Limits.

7.2.1

7

Blank Spike Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42630-BS	W21560.D	1	04/21/15	KD	04/10/15	OP42630	MSW922

The QC reported here applies to the following samples: Method: SW846 8270D

MC37910-1, MC37910-2, MC37910-3, MC37910-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	5.2	10	10-74
67-72-1	Hexachloroethane	50	31.5	63	15-104
78-59-1	Isophorone	50	41.0	82	44-110
88-74-4	2-Nitroaniline	50	52.2	104	63-123
99-09-2	3-Nitroaniline	50	44.5	89	63-112
100-01-6	4-Nitroaniline	50	47.3	95	58-114
98-95-3	Nitrobenzene	50	44.6	89	37-130
62-75-9	n-Nitrosodimethylamine	50	36.7	73	18-80
621-64-7	N-Nitroso-di-n-propylamine	50	43.7	87	44-128
86-30-6	N-Nitrosodiphenylamine	50	44.0	88	62-107
110-86-1	Pyridine	50	15.7	31	10-77

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	65%	10-79%
4165-62-2	Phenol-d5	49%	10-72%
118-79-6	2,4,6-Tribromophenol	108%	35-138%
4165-60-0	Nitrobenzene-d5	95%	30-116%
321-60-8	2-Fluorobiphenyl	93%	35-107%
1718-51-0	Terphenyl-d14	104%	43-135%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42631-BS	I95236.D	1	04/20/15	MR	04/10/15	OP42631	MSI3562
OP42631-BSD	I95237.D	1	04/20/15	MR	04/10/15	OP42631	MSI3562

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC37910-1, MC37910-2, MC37910-3, MC37910-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	50	41.9	84	39.4	79	6	45-116/30
208-96-8	Acenaphthylene	50	39.1	78	36.9	74	6	34-110/30
120-12-7	Anthracene	50	44.0	88	41.6	83	6	50-117/30
56-55-3	Benzo(a)anthracene	50	50.2	100	49.0	98	2	55-139/30
50-32-8	Benzo(a)pyrene	50	52.4	105	51.6	103	2	48-131/30
205-99-2	Benzo(b)fluoranthene	50	48.5	97	48.1	96	1	49-141/30
191-24-2	Benzo(g,h,i)perylene	50	50.0	100	50.2	100	0	60-130/30
207-08-9	Benzo(k)fluoranthene	50	48.1	96	45.7	91	5	49-133/30
218-01-9	Chrysene	50	45.6	91	44.4	89	3	52-128/30
53-70-3	Dibenzo(a,h)anthracene	50	50.2	100	50.0	100	0	60-136/30
206-44-0	Fluoranthene	50	46.7	93	45.3	91	3	46-132/30
86-73-7	Fluorene	50	42.5	85	40.5	81	5	53-120/30
193-39-5	Indeno(1,2,3-cd)pyrene	50	51.0	102	50.8	102	0	57-134/30
90-12-0	1-Methylnaphthalene	50	39.5	79	36.8	74	7	41-105/30
91-57-6	2-Methylnaphthalene	50	39.5	79	37.4	75	5	36-111/30
85-01-8	Phenanthrene	50	42.2	84	40.2	80	5	50-120/30
129-00-0	Pyrene	50	46.0	92	44.9	90	2	48-127/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
4165-60-0	Nitrobenzene-d5	94%	85%	26-121%
321-60-8	2-Fluorobiphenyl	84%	78%	28-107%
1718-51-0	Terphenyl-d14	111%	104%	29-129%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42630-MS	W21561.D	1	04/21/15	KD	04/10/15	OP42630	MSW922
OP42630-MSD	W21562.D	1	04/21/15	KD	04/10/15	OP42630	MSW922
MC37883-1	W21563.D	1	04/21/15	KD	04/10/15	OP42630	MSW922

The QC reported here applies to the following samples: Method: SW846 8270D

MC37910-1, MC37910-2, MC37910-3, MC37910-4

CAS No.	Compound	MC37883-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		51	17.6	34	51.5	18.1	35	3	10-76/20
95-57-8	2-Chlorophenol	ND		51	40.9	80	51.5	41.7	81	2	37-112/20
59-50-7	4-Chloro-3-methyl phenol	ND		51	44.6	87	51.5	45.9	89	3	43-115/20
120-83-2	2,4-Dichlorophenol	ND		51	45.3	89	51.5	46.8	91	3	47-119/20
105-67-9	2,4-Dimethylphenol	ND		51	41.7	82	51.5	40.5	79	3	15-118/20
51-28-5	2,4-Dinitrophenol	ND		51	37.7	74	51.5	41.1	80	9	10-165/20
534-52-1	4,6-Dinitro-o-cresol	ND		51	45.7	90	51.5	48.2	94	5	13-165/20
95-48-7	2-Methylphenol	ND		51	35.7	70	51.5	36.5	71	2	30-99/20
	3&4-Methylphenol	ND		102	71.0	70	103	72.5	70	2	32-89/20
88-75-5	2-Nitrophenol	ND		51	47.4	93	51.5	49.0	95	3	44-120/20
100-02-7	4-Nitrophenol	ND		51	21.1	41	51.5	21.0	41	0	10-93/20
87-86-5	Pentachlorophenol	ND		51	43.2	85	51.5	45.1	87	4	33-131/20
108-95-2	Phenol	ND		51	19.9	39	51.5	20.2	39	1	15-53/20
95-95-4	2,4,5-Trichlorophenol	ND		51	47.6	93	51.5	49.7	96	4	45-126/20
88-06-2	2,4,6-Trichlorophenol	ND		51	48.6	95	51.5	50.5	98	4	45-124/20
62-53-3	Aniline	ND		51	31.2	61	51.5	29.1	56	7	18-91/20
101-55-3	4-Bromophenyl phenyl ether	ND		51	49.6	97	51.5	51.4	100	4	57-131/20
85-68-7	Butyl benzyl phthalate	ND		51	50.0	98	51.5	51.9	101	4	58-135/20
100-51-6	Benzyl Alcohol	ND		51	39.9	78	51.5	40.7	79	2	10-109/20
91-58-7	2-Chloronaphthalene	ND		51	46.6	91	51.5	49.0	95	5	51-123/20
106-47-8	4-Chloroaniline	ND		51	39.7	78	51.5	38.7	75	3	39-109/20
111-91-1	bis(2-Chloroethoxy)methane	ND		51	44.2	87	51.5	46.2	90	4	36-120/20
111-44-4	bis(2-Chloroethyl)ether	ND		51	41.7	82	51.5	42.9	83	3	30-124/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		51	44.5	87	51.5	46.3	90	4	25-171/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		51	48.0	94	51.5	49.6	96	3	51-122/20
122-66-7	1,2-Diphenylhydrazine	ND		51	48.5	95	51.5	50.6	98	4	47-130/20
121-14-2	2,4-Dinitrotoluene	ND		51	51.0	100	51.5	53.8	104	5	57-131/20
606-20-2	2,6-Dinitrotoluene	ND		51	48.5	95	51.5	50.3	98	4	52-135/20
91-94-1	3,3'-Dichlorobenzidine	ND		51	46.6	91	51.5	44.7	87	4	25-157/20
132-64-9	Dibenzofuran	ND		51	45.6	89	51.5	47.3	92	4	54-110/20
84-74-2	Di-n-butyl phthalate	ND		51	48.3	95	51.5	50.0	97	3	60-122/20
117-84-0	Di-n-octyl phthalate	ND		51	49.3	97	51.5	50.8	99	3	54-142/20
84-66-2	Diethyl phthalate	ND		51	48.3	95	51.5	50.1	97	4	40-132/20
131-11-3	Dimethyl phthalate	ND		51	48.2	94	51.5	50.1	97	4	13-149/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		51	52.5	103	51.5	54.3	105	3	59-139/20
118-74-1	Hexachlorobenzene	ND		51	49.3	97	51.5	51.7	100	5	56-135/20

* = Outside of Control Limits.

7.4.1

7

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42630-MS	W21561.D	1	04/21/15	KD	04/10/15	OP42630	MSW922
OP42630-MSD	W21562.D	1	04/21/15	KD	04/10/15	OP42630	MSW922
MC37883-1	W21563.D	1	04/21/15	KD	04/10/15	OP42630	MSW922

The QC reported here applies to the following samples: Method: SW846 8270D

MC37910-1, MC37910-2, MC37910-3, MC37910-4

CAS No.	Compound	MC37883-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		51	7.1	14	51.5	8.1	16	13	10-73/20
67-72-1	Hexachloroethane	ND		51	29.2	57	51.5	32.0	62	9	13-103/20
78-59-1	Isophorone	ND		51	38.9	76	51.5	40.5	79	4	41-110/20
88-74-4	2-Nitroaniline	ND		51	50.3	99	51.5	52.2	101	4	57-126/20
99-09-2	3-Nitroaniline	ND		51	45.5	89	51.5	46.3	90	2	53-118/20
100-01-6	4-Nitroaniline	ND		51	47.1	92	51.5	47.1	91	0	50-119/20
98-95-3	Nitrobenzene	ND		51	42.8	84	51.5	44.8	87	5	35-127/20
62-75-9	n-Nitrosodimethylamine	ND		51	32.8	64	51.5	34.2	66	4	11-82/20
621-64-7	N-Nitroso-di-n-propylamine	ND		51	42.5	83	51.5	43.5	84	2	39-129/20
86-30-6	N-Nitrosodiphenylamine	ND		51	43.4	85	51.5	45.7	89	5	55-112/20
110-86-1	Pyridine	ND		51	18.3	36	51.5	15.8	31	15	15-71/20

CAS No.	Surrogate Recoveries	MS	MSD	MC37883-1	Limits
367-12-4	2-Fluorophenol	54%	57%	28%	10-79%
4165-62-2	Phenol-d5	38%	40%	20%	10-72%
118-79-6	2,4,6-Tribromophenol	103%	107%	62%	35-138%
4165-60-0	Nitrobenzene-d5	88%	92%	50%	30-116%
321-60-8	2-Fluorobiphenyl	85%	90%	48%	35-107%
1718-51-0	Terphenyl-d14	102%	107%	72%	43-135%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42631-MS	I95238.D	1	04/20/15	MR	04/10/15	OP42631	MSI3562
OP42631-MSD	I95239.D	1	04/20/15	MR	04/10/15	OP42631	MSI3562
MC37883-1	I95240.D	1	04/20/15	MR	04/10/15	OP42631	MSI3562

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC37910-1, MC37910-2, MC37910-3, MC37910-4

7.4.2

7

CAS No.	Compound	MC37883-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		51	40.8	80	51.5	42.1	82	3	36-124/20
208-96-8	Acenaphthylene	ND		51	38.4	75	51.5	39.6	77	3	25-116/20
120-12-7	Anthracene	ND		51	42.7	84	51.5	44.0	85	3	42-122/20
56-55-3	Benzo(a)anthracene	ND		51	49.9	98	51.5	52.1	101	4	45-145/20
50-32-8	Benzo(a)pyrene	ND		51	53.1	104	51.5	55.1	107	4	40-136/20
205-99-2	Benzo(b)fluoranthene	ND		51	50.5	99	51.5	50.2	97	1	41-148/20
191-24-2	Benzo(g,h,i)perylene	ND		51	52.1	102	51.5	50.7	98	3	48-140/20
207-08-9	Benzo(k)fluoranthene	ND		51	44.8	88	51.5	50.7	98	12	45-131/20
218-01-9	Chrysene	ND		51	45.7	90	51.5	47.1	91	3	41-135/20
53-70-3	Dibenzo(a,h)anthracene	ND		51	51.6	101	51.5	51.4	100	0	49-144/20
206-44-0	Fluoranthene	ND		51	46.9	92	51.5	48.3	94	3	38-136/20
86-73-7	Fluorene	ND		51	42.1	83	51.5	43.7	85	4	43-127/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		51	52.4	103	51.5	51.7	100	1	45-142/20
90-12-0	1-Methylnaphthalene	ND		51	38.7	76	51.5	41.0	80	6	29-116/20
91-57-6	2-Methylnaphthalene	ND		51	39.2	77	51.5	41.2	80	5	27-117/20
85-01-8	Phenanthrene	ND		51	41.6	82	51.5	42.6	83	2	41-126/20
129-00-0	Pyrene	ND		51	46.5	91	51.5	47.4	92	2	41-131/20

CAS No.	Surrogate Recoveries	MS	MSD	MC37883-1	Limits
4165-60-0	Nitrobenzene-d5	86%	90%	50%	26-121%
321-60-8	2-Fluorobiphenyl	79%	82%	45%	28-107%
1718-51-0	Terphenyl-d14	106%	111%	74%	29-129%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3562-CC3561	Injection Date:	04/20/15
Lab File ID:	I95214.D	Injection Time:	12:06
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	241017	3.57	504755	4.60	286313	6.12	501516	7.43	355983	10.20	903409	11.62
Upper Limit [a]	482034	4.07	1009510	5.10	572626	6.62	1003032	7.93	711966	10.70	1806818	12.12
Lower Limit [b]	120509	3.07	252378	4.10	143157	5.62	250758	6.93	177992	9.70	451705	11.12
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP42721-MB	282239	3.57	596782	4.60	335689	6.12	578905	7.43	411963	10.20	1046484	11.62
OP42721-BS	281953	3.57	597005	4.61	329133	6.12	583372	7.44	412233	10.20	1009676	11.63
OP42721-BSD	266703	3.57	573245	4.61	318029	6.12	569020	7.44	401385	10.21	983101	11.63
ZZZZZZ	275946	3.57	579038	4.60	325910	6.12	566073	7.43	396273	10.20	997311	11.62
ZZZZZZ	267096	3.57	548399	4.60	307382	6.12	519483	7.43	372589	10.21	907129	11.63
ZZZZZZ	251095	3.57	523882	4.61	292015	6.12	513300	7.44	372703	10.21	933829	11.64
ZZZZZZ	280467	3.57	590785	4.61	326933	6.12	558884	7.43	407770	10.20	1016335	11.63
ZZZZZZ	274009	3.57	571023	4.61	313103	6.12	541036	7.43	390971	10.20	986041	11.63
ZZZZZZ	265494	3.57	561388	4.61	319038	6.12	545488	7.43	385114	10.20	969895	11.62
ZZZZZZ	263381	3.57	543165	4.60	303476	6.12	522659	7.43	377135	10.20	944284	11.63
ZZZZZZ	276739	3.57	576326	4.61	320949	6.12	549722	7.43	386220	10.20	968590	11.63
ZZZZZZ	259014	3.57	535352	4.61	296808	6.12	508596	7.43	364448	10.20	914539	11.63
ZZZZZZ	285435	3.57	584684	4.61	325354	6.12	552248	7.44	396786	10.20	955301	11.63
ZZZZZZ	275242	3.57	581689	4.61	329541	6.12	559382	7.43	393728	10.20	925096	11.63
ZZZZZZ	267120	3.57	559566	4.61	310993	6.12	526850	7.44	375490	10.21	878080	11.64
ZZZZZZ	257151	3.57	542951	4.61	304211	6.12	521253	7.43	362352	10.20	887799	11.63
ZZZZZZ	252659	3.57	524803	4.61	296322	6.12	511077	7.43	368591	10.20	920204	11.63
ZZZZZZ	256446	3.57	537823	4.61	302282	6.12	517943	7.43	369730	10.20	925667	11.63
ZZZZZZ	256799	3.57	516846	4.61	295437	6.12	481369	7.44	343811	10.21	831440	11.64
OP42695-MB	391215	3.57	880144	4.61	526526	6.12	925610	7.44	703028	10.21	1678034	11.64
OP42631-MB	281416	3.57	595183	4.61	341482	6.12	583841	7.43	416470	10.20	991495	11.63
OP42631-BS	273147	3.57	590866	4.61	332062	6.12	589286	7.44	416659	10.21	966431	11.63
OP42631-BSD	272780	3.57	590140	4.61	329669	6.12	589790	7.44	413758	10.21	970216	11.63
OP42631-MS	249370	3.57	539266	4.61	301494	6.12	534425	7.44	376096	10.21	891232	11.63
OP42631-MSD	258060	3.57	567209	4.61	322945	6.12	581129	7.44	415413	10.21	944623	11.63
MC37883-1	273060	3.57	582727	4.61	333378	6.12	578367	7.43	409809	10.20	998498	11.63
ZZZZZZ	272844	3.57	585065	4.61	326634	6.12	576903	7.43	391910	10.20	928470	11.63
ZZZZZZ	281695	3.57	600635	4.61	341970	6.12	584961	7.43	405306	10.20	950095	11.63

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

7.5.1

7

Semivolatile Internal Standard Area Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3562-CC3561	Injection Date:	04/20/15
Lab File ID:	I95214.D	Injection Time:	12:06
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.5.1

7

Semivolatile Internal Standard Area Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3563-CC3561	Injection Date:	04/21/15
Lab File ID:	I95245.D	Injection Time:	08:29
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	243799	3.57	513765	4.60	296822	6.12	514449	7.43	379947	10.20	955932	11.63
Upper Limit [a]	487598	4.07	1027530	5.10	593644	6.62	1028898	7.93	759894	10.70	1911864	12.13
Lower Limit [b]	121900	3.07	256883	4.10	148411	5.62	257225	6.93	189974	9.70	477966	11.13
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
ZZZZZZ	273578	3.57	586408	4.60	332427	6.12	578488	7.43	421898	10.20	1049475	11.63
ZZZZZZ	273927	3.57	572760	4.60	324715	6.12	556690	7.43	395730	10.20	974920	11.63
ZZZZZZ	294257	3.57	628399	4.60	357378	6.12	620206	7.43	444808	10.20	1104545	11.63
ZZZZZZ	282779	3.57	582639	4.61	342639	6.12	593020	7.43	438826	10.20	1090341	11.63
ZZZZZZ	264542	3.57	554563	4.61	320368	6.12	557768	7.43	403804	10.20	1001325	11.62
ZZZZZZ	265273	3.57	570501	4.60	324952	6.12	567191	7.43	405756	10.20	1013474	11.63
ZZZZZZ	270641	3.57	580466	4.60	336728	6.12	584163	7.43	422716	10.20	1040662	11.63
MC37910-1	256064	3.57	547080	4.60	315456	6.12	546603	7.43	396682	10.20	981889	11.63
MC37910-2	285888	3.57	606779	4.60	343490	6.12	586490	7.43	428870	10.20	1043453	11.63
MC37910-3	234344	3.57	517670	4.60	303310	6.12	546991	7.43	423648	10.20	1094075	11.63
MC37910-4	287166	3.57	613861	4.60	354939	6.12	614663	7.43	443171	10.20	1085338	11.63
OP42660-MB	294392	3.57	629403	4.60	362932	6.12	636544	7.43	473513	10.20	1143095	11.63
OP42660-BS	273214	3.57	596873	4.61	336009	6.12	594383	7.43	435081	10.21	1036802	11.63
OP42660-MS	255688	3.57	559279	4.61	316928	6.12	570808	7.43	412252	10.21	990375	11.63
OP42660-MSD	254712	3.57	561699	4.61	318102	6.12	566121	7.43	412194	10.21	986957	11.63
MC37900-20	276484	3.57	604097	4.60	356306	6.12	631425	7.43	472127	10.20	1155260	11.63
ZZZZZZ	276662	3.57	607315	4.60	358820	6.12	634528	7.43	474517	10.20	1175438	11.63

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW922-CC902	Injection Date:	04/21/15
Lab File ID:	W21538.D	Injection Time:	08:19
Instrument ID:	GCMSW	Method:	SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	263704	5.11	994608	6.21	583050	7.76	1058956	9.05	1148147	11.59	1132055	13.27
Upper Limit [a]	527408	5.61	1989216	6.71	1166100	8.26	2117912	9.55	2296294	12.09	2264110	13.77
Lower Limit [b]	131852	4.61	497304	5.71	291525	7.26	529478	8.55	574074	11.09	566028	12.77
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP42727-MB	273139	5.11	1028618	6.21	618013	7.76	1069146	9.04	1161701	11.58	1180761	13.27
OP42727-BS	278225	5.11	1042229	6.21	612620	7.76	1076627	9.05	1148618	11.59	1123637	13.27
OP42727-MS	326164	5.11	1224652	6.21	705659	7.76	1191909	9.05	1149866	11.59	1087776	13.27
OP42727-MSD	295458	5.11	1104968	6.21	635599	7.76	1094476	9.05	1046596	11.59	978871	13.27
MC38102-1	314052	5.11	1176756	6.21	708345	7.76	1158687	9.05	1119515	11.59	1043570	13.27
ZZZZZZ	320224	5.11	1189213	6.21	692024	7.76	1123527	9.05	1076401	11.59	1008648	13.27
ZZZZZZ	314120	5.11	1173354	6.21	688588	7.76	1120734	9.05	1050156	11.59	991685	13.27
ZZZZZZ	316950	5.11	1193316	6.21	702759	7.76	1129817	9.05	1062049	11.59	998117	13.27
ZZZZZZ	319169	5.11	1176712	6.21	693405	7.76	1145572	9.05	1086631	11.59	1020591	13.27
ZZZZZZ	268223	5.11	1002254	6.21	584313	7.76	952636	9.05	949708	11.59	954864	13.28
ZZZZZZ	317097	5.11	1183482	6.21	690408	7.76	1096208	9.05	977632	11.59	944125	13.28
ZZZZZZ	292986	5.11	1093644	6.21	638486	7.76	1003140	9.05	910406	11.59	873480	13.28
ZZZZZZ	288346	5.11	1060050	6.21	616848	7.76	1006949	9.05	1009257	11.59	1025591	13.28
ZZZZZZ	297495	5.11	1068073	6.22	626153	7.76	1029861	9.05	1048796	11.60	1044946	13.29
ZZZZZZ	294404	5.11	1093811	6.21	646329	7.76	1054720	9.05	1044095	11.60	1096855	13.29
ZZZZZZ	261533	5.11	963045	6.21	569542	7.76	931926	9.05	926367	11.59	955387	13.28
ZZZZZZ	271140	5.11	996526	6.21	585980	7.76	950487	9.05	962451	11.59	1001597	13.28
ZZZZZZ	314259	5.11	1132832	6.21	661610	7.76	1079582	9.05	1035462	11.59	1026626	13.28
ZZZZZZ	302954	5.11	1117186	6.21	655530	7.76	1066353	9.05	1026686	11.59	1003332	13.28
ZZZZZZ	313505	5.11	1146558	6.21	666277	7.76	1103600	9.05	1086014	11.59	1071554	13.28
OP42630-MB	332598	5.11	1217956	6.21	710701	7.76	1161770	9.05	1176929	11.59	1207070	13.28
OP42630-BS	321351	5.11	1186041	6.22	684492	7.76	1153118	9.05	1140455	11.59	1161287	13.28
OP42630-MS	316472	5.11	1177155	6.22	680544	7.76	1143515	9.05	1127129	11.59	1132364	13.28
OP42630-MSD	312833	5.11	1151006	6.22	662056	7.76	1101648	9.05	1078876	11.59	1092661	13.28
MC37883-1	342729	5.11	1257073	6.21	741354	7.76	1214789	9.05	1220506	11.59	1241858	13.28
ZZZZZZ	326081	5.11	1203892	6.21	716464	7.76	1165883	9.05	1155214	11.59	1167894	13.28

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.

7.5.3

7

Semivolatile Internal Standard Area Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW922-CC902	Injection Date:	04/21/15
Lab File ID:	W21538.D	Injection Time:	08:19
Instrument ID:	GCMSW	Method:	SW846 8270D

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.5.3

7

Semivolatile Internal Standard Area Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW923-CC902	Injection Date:	04/22/15
Lab File ID:	W21570.D	Injection Time:	10:21
Instrument ID:	GCMSW	Method:	SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	262984	5.11	993693	6.22	579584	7.76	1050811	9.05	1129085	11.60	1137279	13.28
Upper Limit [a]	525968	5.61	1987386	6.72	1159168	8.26	2101622	9.55	2258170	12.10	2274558	13.78
Lower Limit [b]	131492	4.61	496847	5.72	289792	7.26	525406	8.55	564543	11.10	568640	12.78
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
MC37910-2	322156	5.11	1211370	6.21	729098	7.76	1233087	9.05	1343274	11.59	1350792	13.28
MC37910-3	285199	5.11	1065276	6.21	644147	7.76	1105003	9.05	1215476	11.59	1241847	13.28
MC37910-4	318977	5.11	1179447	6.21	712503	7.76	1238461	9.05	1351156	11.59	1385505	13.28
ZZZZZZ	304176	5.11	1133761	6.21	671321	7.76	1158918	9.05	1212537	11.59	1241321	13.28
ZZZZZZ	316325	5.11	1176965	6.21	710194	7.76	1212510	9.05	1319071	11.59	1342105	13.28
ZZZZZZ	308812	5.11	1138257	6.21	684944	7.76	1173272	9.05	1288410	11.59	1312185	13.28
MC37910-1	287031	5.11	1063106	6.21	633432	7.76	1089934	9.05	1179955	11.59	1208881	13.28
OP42763-MB	340655	5.11	1261307	6.21	749226	7.76	1288515	9.05	1411191	11.59	1419522	13.28
OP42763-BS	302222	5.11	1131105	6.21	665692	7.76	1160424	9.05	1264772	11.59	1248855	13.28
OP42763-MS	326756	5.11	1222200	6.21	713346	7.76	1247066	9.05	1274374	11.59	1245246	13.28
OP42763-MSD	312226	5.11	1162700	6.21	685622	7.76	1208182	9.05	1208544	11.59	1191563	13.28
MC38080-1	327837	5.11	1221539	6.21	722031	7.76	1239069	9.05	1268311	11.59	1226893	13.28
ZZZZZZ	322130	5.11	1190144	6.21	710368	7.76	1209634	9.05	1221807	11.59	1189367	13.28
ZZZZZZ	313778	5.11	1141868	6.21	678448	7.76	1150858	9.05	1139517	11.59	1093264	13.28
ZZZZZZ	305379	5.11	1134102	6.21	670677	7.76	1129044	9.05	1119805	11.59	1071135	13.28
ZZZZZZ	316166	5.11	1172384	6.21	697550	7.76	1174467	9.05	1173149	11.59	1136247	13.28
ZZZZZZ	281642	5.11	1042383	6.21	625505	7.76	1027424	9.05	1007831	11.59	965592	13.28
ZZZZZZ	324159	5.11	1198215	6.21	703934	7.76	1154988	9.05	1142086	11.60	1147585	13.30
OP42759-MB	289966	5.11	1085637	6.21	649934	7.76	1090316	9.05	1153317	11.59	1175318	13.28
OP42759-LB	289966	5.11	1085637	6.21	649934	7.76	1090316	9.05	1153317	11.59	1175318	13.28
OP42759-BS	290946	5.11	1086703	6.22	635802	7.76	1112654	9.05	1149368	11.60	1165314	13.28
OP42759-MS	291171	5.11	1083978	6.22	632481	7.76	1093897	9.05	1119525	11.59	1145406	13.28
OP42759-MSD	278136	5.11	1033546	6.21	605393	7.76	1058106	9.05	1073938	11.59	1084073	13.28
JB92642-5	273412	5.11	1034093	6.21	621764	7.76	1066227	9.05	1091280	11.59	1098020	13.28
ZZZZZZ	288764	5.11	1068591	6.21	639308	7.76	1093785	9.05	1095928	11.59	1116905	13.28
ZZZZZZ	286395	5.11	1071709	6.21	642276	7.76	1104766	9.05	1148071	11.59	1148437	13.28

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW923-CC902	Injection Date:	04/22/15
Lab File ID:	W21570.D	Injection Time:	10:21
Instrument ID:	GCMSW	Method:	SW846 8270D

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.5.4

7

Semivolatile Surrogate Recovery Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8270D Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC37910-1	W21577.D	45	32	94	81	77	100
MC37910-2	W21571.D	56	40	111	91	89	106
MC37910-3	W21572.D	56	40	109	95	88	106
MC37910-4	W21573.D	40	29	97	71	69	105
OP42630-BS	W21560.D	65	49	108	95	93	104
OP42630-MB	W21559.D	33	26	68	51	47	75
OP42630-MS	W21561.D	54	38	103	88	85	102
OP42630-MSD	W21562.D	57	40	107	92	90	107

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	10-79%
S2 = Phenol-d5	10-72%
S3 = 2,4,6-Tribromophenol	35-138%
S4 = Nitrobenzene-d5	30-116%
S5 = 2-Fluorobiphenyl	35-107%
S6 = Terphenyl-d14	43-135%

Semivolatile Surrogate Recovery Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8270D BY SIM Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC37910-1	I95253.D	79	70	107
MC37910-2	I95254.D	92	83	114
MC37910-3	I95255.D	92	80	108
MC37910-4	I95256.D	70	64	112
OP42631-BS	I95236.D	94	84	111
OP42631-BSD	I95237.D	85	78	104
OP42631-MB	I95235.D	50	44	78
OP42631-MS	I95238.D	86	79	106
OP42631-MSD	I95239.D	90	82	111

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	26-121%
S2 = 2-Fluorobiphenyl	28-107%
S3 = Terphenyl-d14	29-129%

7.6.2

7

New England ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries

Method Blank Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42703-MB	BB62801.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420

The QC reported here applies to the following samples: Method: SW846 8011

MC37910-1, MC37910-2, MC37910-3, MC37910-4, MC37910-6

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.0061	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.0061	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	Bromofluorobenzene (S)	105%	60-140%
460-00-4	Bromofluorobenzene (S)	105%	60-140%

8.1.1

8

Blank Spike Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42703-BS	BB62802.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420

The QC reported here applies to the following samples: Method: SW846 8011

MC37910-1, MC37910-2, MC37910-3, MC37910-4, MC37910-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.070	99	45-149
106-93-4	1,2-Dibromoethane	0.071	0.074	104	51-149

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	101%	60-140%
460-00-4	Bromofluorobenzene (S)	100%	60-140%

8.2.1

8

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42703-MS	BB62803.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420
OP42703-MSD	BB62804.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420
MC37883-1	BB62805.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420

The QC reported here applies to the following samples: Method: SW846 8011

MC37910-1, MC37910-2, MC37910-3, MC37910-4, MC37910-6

CAS No.	Compound	MC37883-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	ND		0.068	0.089	131	0.0688	0.059	86	41* [a]	31-169/30
106-93-4	1,2-Dibromoethane	ND		0.068	0.099	146	0.0688	0.062	90	46* [a]	34-175/30

CAS No.	Surrogate Recoveries	MS	MSD	MC37883-1	Limits
460-00-4	Bromofluorobenzene (S)	131%	97%	99%	60-140%
460-00-4	Bromofluorobenzene (S)	140%	103%	107%	60-140%

(a) High RPD due to possible matrix interference and/or sample non-homogeneity.

* = Outside of Control Limits.

8.3.1 8

Volatile Surrogate Recovery Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8011 Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
MC37910-1	BB62813.D	105	107
MC37910-2	BB62814.D	101	109
MC37910-3	BB62815.D	102	105
MC37910-4	BB62816.D	107	111
MC37910-6	BB62817.D	111	117
OP42703-BS	BB62802.D	101	100
OP42703-MB	BB62801.D	105	105
OP42703-MS	BB62803.D	131	140
OP42703-MSD	BB62804.D	97	103

Surrogate Compounds	Recovery Limits
S1 = Bromofluorobenzene (S)	60-140%

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

8.4.1

8

GC Surrogate Retention Time Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBB3420-ICC3420	Injection Date:	04/17/15
Lab File ID:	BB62797.D	Injection Time:	13:57
Instrument ID:	GCBB	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	6.88	7.25

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP42703-MB	BB62801.D	04/17/15	15:56	6.88	7.25
OP42703-BS	BB62802.D	04/17/15	16:26	6.88	7.25
OP42703-MS	BB62803.D	04/17/15	16:56	6.88	7.25
OP42703-MSD	BB62804.D	04/17/15	17:25	6.88	7.25
MC37883-1	BB62805.D	04/17/15	17:53	6.88	7.26
ZZZZZZ	BB62806.D	04/17/15	18:23	6.89	7.26
ZZZZZZ	BB62807.D	04/17/15	18:52	6.89	7.26
ZZZZZZ	BB62808.D	04/17/15	19:22	6.89	7.26
ZZZZZZ	BB62809.D	04/17/15	19:52	6.88	7.25
ZZZZZZ	BB62810.D	04/17/15	20:21	6.88	7.25

Surrogate Compounds

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.5.1

8

GC Surrogate Retention Time Summary

Job Number: MC37910
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBB3420-CC3420	Injection Date:	04/17/15
Lab File ID:	BB62811.D	Injection Time:	20:51
Instrument ID:	GCBB	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	6.88	7.26

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	BB62812.D	04/17/15	21:20	6.89	7.25
MC37910-1	BB62813.D	04/17/15	21:51	6.89	7.25
MC37910-2	BB62814.D	04/17/15	22:22	6.88	7.25
MC37910-3	BB62815.D	04/17/15	22:51	6.88	7.25
MC37910-4	BB62816.D	04/17/15	23:20	6.89	7.26
MC37910-6	BB62817.D	04/17/15	23:51	6.88	7.25
ZZZZZZ	BB62818.D	04/18/15	00:21	6.88	7.25
ZZZZZZ	BB62819.D	04/18/15	00:50	6.88	7.25
ZZZZZZ	BB62820.D	04/18/15	01:19	6.88	7.25
ZZZZZZ	BB62821.D	04/18/15	01:48	6.88	7.25

Surrogate Compounds

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.5.2

8

Roxana Groundwater Quarterly – 2nd Quarter 2015 Data Review

Laboratory SDG: MC37947

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 4/28/2015

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2014

Sample Identification	Sample Identification
P54-ROX-041015	MW27-ROX-041015-EB
MW27-ROX-041015	MW3-ROX-041015
TB-ROX-041015-HCL	TB-ROX-041015-ST

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 SVOCs and PAHs were detected in the method blank, and although not indicated in the laboratory case narrative, SVOCs and PAHs were detected in the equipment blank. These issues are addressed further in the appropriate sections below. Additionally, the initial calibration verification for acrolein, vinyl acetate and hexachlorocyclopentadiene exceeded 30 percent difference (%D). Continuing calibration verification for 1,2-dibromoethane exceeded 15%D.

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
MW27-ROX-041015-EB	SVOCs	bis(2-ethylhexyl)phthalate	0.39 µg/L
MW27-ROX-041015-EB	PAHs	Fluoranthene	0.016 µg/L
OP42687-MB	SVOCs	bis(2-ethylhexyl)phthalate	0.47 µg/L
OP42654-MB	PAHs	Phenanthrene	0.016 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. Please see Section 12.0 of

this review for additional qualifications regarding samples associated with fluoranthene and phenanthrene in equipment blank MW27-ROX-041015-EB and method blank OP42654-MB, respectively.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW27-ROX-041015	SVOCs	bis(2-ethylhexyl)phthalate	-	**U**
MW3-ROX-041015	PAHs	bis(2-ethylhexyl)phthalate	-	**U**

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

Yes

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

Yes, although not requested, sample P54-ROX-041015 was spiked and analyzed for VOCs.

Were MS/MSD recoveries within evaluation criteria?

Yes

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

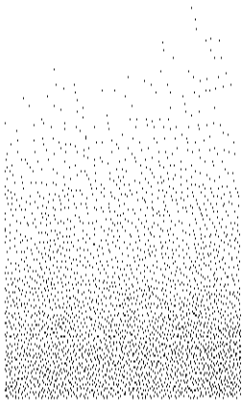
Were additional qualifications applied?

Yes, professional judgment was also used to qualify as estimated, however not reject, the following data that was associated with equipment blank MW27-ROX-041015-EB, and method blank OP42654-MB due to comparable historical detections.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
P54-ROX-041015	PAHs	Fluoranthene	-	**J**
MW27-ROX-041015	PAHs	Fluoranthene	-	**J**
MW3-ROX-041015	PAHs	Fluoranthene	-	**J**
P54-ROX-041015	PAHs	Phenanthrene	-	**J**
MW27-ROX-041015	PAHs	Phenanthrene	-	**J**
MW3-ROX-041015	PAHs	Phenanthrene	-	**J**

New England ACCUTEST LABORATORIES

04/27/15



Technical Report for

Shell Oil

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana,

Accutest Job Number: MC37947

Sampling Date: 04/10/15

Report to:

AECOM, INC.

Melissa.mansker@urs.com

ATTN: Melissa Mansker

Total number of pages in report: **86**

Reviewed on 4/28/15

Reza Tand
Lab Director

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories. Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

Sections: 1 2 3 4 5 6 7 8

Table of Contents

Section 1: Sample Summary 3
Section 2: Case Narrative/Conformance Summary 4
Section 3: Summary of Hits 6
Section 4: Sample Results 8
4.1: MC37947-1: P54-ROX-041015 9
4.2: MC37947-2: MW27-ROX-041015-EB 16
4.3: MC37947-3: MW27-ROX-041015 23
4.4: MC37947-4: MW3-ROX-041015 30
4.5: MC37947-5: TB-ROX-041015-HCL 37
4.6: MC37947-6: TB-ROX-041015-ST 40
Section 5: Misc. Forms 41
5.1: Chain of Custody 42
5.2: Sample Tracking Chronicle 44
5.3: Internal Chain of Custody 46
Section 6: GC/MS Volatiles - QC Data Summaries 48
6.1: Method Blank Summary 49
6.2: Blank Spike/Blank Spike Duplicate Summary 52
6.3: Matrix Spike/Matrix Spike Duplicate Summary 55
6.4: Internal Standard Area Summaries 58
6.5: Surrogate Recovery Summaries 59
Section 7: GC/MS Semi-volatiles - QC Data Summaries 60
7.1: Method Blank Summary 61
7.2: Blank Spike Summary 65
7.3: Matrix Spike/Matrix Spike Duplicate Summary 69
7.4: Internal Standard Area Summaries 73
7.5: Surrogate Recovery Summaries 77
Section 8: GC Volatiles - QC Data Summaries 79
8.1: Method Blank Summary 80
8.2: Blank Spike Summary 81
8.3: Matrix Spike/Matrix Spike Duplicate Summary 82
8.4: Surrogate Recovery Summaries 83
8.5: GC Surrogate Retention Time Summaries 84

Sample Summary

Shell Oil

Job No: MC37947

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
MC37947-1	04/10/15	09:40 BTDC	04/11/15	AQ	Ground Water	P54-ROX-041015
MC37947-2	04/10/15	09:55 BTDC	04/11/15	AQ	Equipment Blank	MW27-ROX-041015-EB
MC37947-3	04/10/15	12:35 BTDC	04/11/15	AQ	Ground Water	MW27-ROX-041015
MC37947-4	04/10/15	15:05 BTDC	04/11/15	AQ	Ground Water	MW3-ROX-041015
MC37947-5	04/10/15	00:00 BTDC	04/11/15	AQ	Trip Blank Water	TB-ROX-041015-HCL
MC37947-6	04/10/15	00:00 BTDC	04/11/15	AQ	Trip Blank Water	TB-ROX-041015-ST

ACCUTEST LABORATORIES

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	MC37947
Site:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central	**Report Date**	4/27/2015 12:23:32 PM

4 Sample(s) and 2 Trip Blank(s) were collected on 04/10/2015 and were received at Accutest on 04/11/2015 properly preserved, at 2.1 Deg. C and intact. These Samples received an Accutest job number of MC37947. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report. 1-Chlorohexane, Benzenethiol, Dibenz(a,h)acridine, Indene, and Quinoline were searched in the library search and reported only if detections were found.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix	AQ	Batch ID:	MSN3560

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC37947-1MS, MC37947-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Initial calibration verification standard MSN3519-ICV3519 for acrolein, vinyl acetate exceed 30% Difference (response bias high). Associated sample is non-detect for this compound.

Extractables by GCMS By Method SW846 8270D

Matrix	AQ	Batch ID:	OP42653

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC37900-18MS, MC37900-18MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Matrix	AQ	Batch ID:	OP42687

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC38000-4MS, MC38000-4MSD were used as the QC samples indicated.
- RPD(s) for MSD for 3,3'-Dichlorobenzidine, Benzyl Alcohol, Hexachloroethane, n-Nitrosodimethylamine, Phenol are outside control limits for sample OP42687-MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.
- Initial calibration verification MSR1577-ICV1577, file R42796 for Hexachlorocyclopentadiene exceed 30% Difference.

Extractables by GCMS By Method SW846 8270D BY SIM

Matrix	AQ	Batch ID:	OP42654

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC37900-19MS, MC37900-19MSD were used as the QC samples indicated.
- Sample(s) MC37947-1, MC37947-3, MC37947-4 have compound(s) reported with a "B" qualifier, indicating analyte is found in the associated method blank.
- Initial calibration verification standard MSI3483-ICV3483, file I93414 not associate with this job.

Volatiles by GC By Method SW846 8011

Matrix AQ	Batch ID: OP42703

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC37883-1MS, MC37883-1MSD were used as the QC samples indicated.
- RPD(s) for MSD for 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane are outside control limits for sample OP42703-MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.
- Continuing calibration check standard GBB3420-CC3420, file BB62833, signal #1 for 1,2-Dibromoethane exceed 15% Difference. 1,2-Dibromoethane in associated sample is reported from signal #2.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC37947).

Summary of Hits

Job Number: MC37947
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Collected: 04/10/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC37947-1	P54-ROX-041015					
Fluoranthene		0.020 J J	0.11	0.0079	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		0.024 J	2.1	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		0.046 J	2.1	0.012	ug/l	SW846 8270D BY SIM
Phenanthrene		0.025 JB J	0.053	0.011	ug/l	SW846 8270D BY SIM
Pyrene		0.018 J	0.11	0.0090	ug/l	SW846 8270D BY SIM
MC37947-2	MW27-ROX-041015-EB					
bis(2-Ethylhexyl)phthalate		0.39 J	2.0	0.32	ug/l	SW846 8270D
Fluoranthene		0.016 J	0.10	0.0076	ug/l	SW846 8270D BY SIM
MC37947-3	MW27-ROX-041015					
Acetone		2.7 J	10	2.0	ug/l	SW846 8260C
Benzene		0.35 J	0.50	0.27	ug/l	SW846 8260C
bis(2-Ethylhexyl)phthalate		~~0.41 J~~ U	2.2	0.35	ug/l	SW846 8270D
Fluoranthene		0.024 J J	0.11	0.0082	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		0.036 J	2.2	0.014	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		0.070 J	2.2	0.012	ug/l	SW846 8270D BY SIM
Phenanthrene		0.019 JB J	0.056	0.012	ug/l	SW846 8270D BY SIM
Pyrene		0.018 J	0.11	0.0094	ug/l	SW846 8270D BY SIM
MC37947-4	MW3-ROX-041015					
Methyl Tert Butyl Ether		1.2	1.0	0.35	ug/l	SW846 8260C
n-Propylbenzene		0.42 J	5.0	0.29	ug/l	SW846 8260C
Xylene (total)		0.46 J	1.0	0.22	ug/l	SW846 8260C
Di-n-butyl phthalate		0.54 J	5.3	0.29	ug/l	SW846 8270D
bis(2-Ethylhexyl)phthalate		~~0.73 J~~ U	2.1	0.34	ug/l	SW846 8270D
Acenaphthene		0.018 J	0.10	0.0077	ug/l	SW846 8270D BY SIM
Anthracene		0.019 J	0.10	0.010	ug/l	SW846 8270D BY SIM
Fluoranthene		0.024 J J	0.10	0.0076	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		0.13 J	2.0	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		0.097 J	2.0	0.011	ug/l	SW846 8270D BY SIM
Phenanthrene		0.026 JB J	0.051	0.011	ug/l	SW846 8270D BY SIM
Pyrene		0.018 J	0.10	0.0087	ug/l	SW846 8270D BY SIM
MC37947-5	TB-ROX-041015-HCL					
No hits reported in this sample.						

Summary of Hits

Job Number: MC37947
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Collected: 04/10/15

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC37947-6	TB-ROX-041015-ST					

No hits reported in this sample.

New England ACCUTEST LABORATORIES

4

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	P54-ROX-041015		
Lab Sample ID:	MC37947-1	Date Sampled:	04/10/15
Matrix:	AQ - Ground Water	Date Received:	04/11/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N96717.D	1	04/23/15	JB	n/a	n/a	MSN3560
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P54-ROX-041015		
Lab Sample ID:	MC37947-1	Date Sampled:	04/10/15
Matrix:	AQ - Ground Water	Date Received:	04/11/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P54-ROX-041015		
Lab Sample ID:	MC37947-1	Date Sampled:	04/10/15
Matrix:	AQ - Ground Water	Date Received:	04/11/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		72-133%
2037-26-5	Toluene-D8	102%		85-114%
460-00-4	4-Bromofluorobenzene	105%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P54-ROX-041015		
Lab Sample ID:	MC37947-1	Date Sampled:	04/10/15
Matrix:	AQ - Ground Water	Date Received:	04/11/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R43503.D	1	04/16/15	KD	04/15/15	OP42687	MSR1602
Run #2	R43439.D	1	04/14/15	KD	04/13/15	OP42653	MSR1600

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2	940 ml	1.0 ml

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.3	0.31	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.53	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.49	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	0.36	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	0.62	ug/l	
95-48-7	2-Methylphenol	ND	11	0.31	ug/l	
	3&4-Methylphenol	ND	11	0.47	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.49	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	11	0.36	ug/l	
108-95-2	Phenol	ND	5.3	0.34	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.47	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.47	ug/l	
62-53-3	Aniline	ND	11	0.48	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.26	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.34	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	0.36	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.38	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	0.52	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.44	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.44	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	0.27	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	0.31	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.39	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.40	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.56	ug/l	
132-64-9	Dibenzofuran	ND	2.1	0.26	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.3	0.28	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	0.30	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P54-ROX-041015		
Lab Sample ID:	MC37947-1	Date Sampled:	04/10/15
Matrix:	AQ - Ground Water	Date Received:	04/11/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.3	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	5.3	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.33	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.26	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.3	0.30	ug/l	
78-59-1	Isophorone	ND	5.3	0.49	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.38	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.43	ug/l	
100-01-6	4-Nitroaniline	ND	11	0.54	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.51	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	0.27	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.26	ug/l	
110-86-1	Pyridine	ND [a]	11	0.38	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	44%	50%	10-79%
4165-62-2	Phenol-d5	29%	36%	10-72%
118-79-6	2,4,6-Tribromophenol	91%	95%	35-138%
4165-60-0	Nitrobenzene-d5	79%	85%	30-116%
321-60-8	2-Fluorobiphenyl	67%	55%	35-107%
1718-51-0	Terphenyl-d14	97%	102%	43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P54-ROX-041015		
Lab Sample ID:	MC37947-1	Date Sampled:	04/10/15
Matrix:	AQ - Ground Water	Date Received:	04/11/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95135.D	1	04/14/15	MR	04/13/15	OP42654	MSI3558
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.11	0.0080	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.0089	ug/l	
120-12-7	Anthracene	ND	0.11	0.010	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.053	0.025	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.053	0.020	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.011	ug/l	
218-01-9	Chrysene	ND	0.11	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.016	ug/l	
206-44-0	Fluoranthene	0.020	0.11	0.0079	ug/l	J J
86-73-7	Fluorene	ND	0.11	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.022	ug/l	
90-12-0	1-Methylnaphthalene	0.024	2.1	0.013	ug/l	J
91-57-6	2-Methylnaphthalene	0.046	2.1	0.012	ug/l	J
85-01-8	Phenanthrene	0.025	0.053	0.011	ug/l	JB J
129-00-0	Pyrene	0.018	0.11	0.0090	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	85%		26-121%
321-60-8	2-Fluorobiphenyl	50%		28-107%
1718-51-0	Terphenyl-d14	113%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P54-ROX-041015		
Lab Sample ID:	MC37947-1	Date Sampled:	04/10/15
Matrix:	AQ - Ground Water	Date Received:	04/11/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62818.D	1	04/18/15	NK	04/16/15	OP42703	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	36.8 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0058	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0058	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	104%		60-140%
460-00-4	Bromofluorobenzene (S)	110%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-ROX-041015-EB		
Lab Sample ID:	MC37947-2	Date Sampled:	04/10/15
Matrix:	AQ - Equipment Blank	Date Received:	04/11/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N96712.D	1	04/22/15	JB	n/a	n/a	MSN3560
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-ROX-041015-EB		
Lab Sample ID:	MC37947-2	Date Sampled:	04/10/15
Matrix:	AQ - Equipment Blank	Date Received:	04/11/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-ROX-041015-EB		
Lab Sample ID:	MC37947-2	Date Sampled:	04/10/15
Matrix:	AQ - Equipment Blank	Date Received:	04/11/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		72-133%
2037-26-5	Toluene-D8	99%		85-114%
460-00-4	4-Bromofluorobenzene	103%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-ROX-041015-EB		
Lab Sample ID:	MC37947-2	Date Sampled:	04/10/15
Matrix:	AQ - Equipment Blank	Date Received:	04/11/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R43504.D	1	04/16/15	KD	04/15/15	OP42687	MSR1602
Run #2	R43440.D	1	04/14/15	KD	04/13/15	OP42653	MSR1600

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2	980 ml	1.0 ml

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.1	0.30	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.52	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.48	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.34	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.60	ug/l	
95-48-7	2-Methylphenol	ND	10	0.31	ug/l	
	3&4-Methylphenol	ND	10	0.45	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.47	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.35	ug/l	
108-95-2	Phenol	ND	5.1	0.33	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.46	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.46	ug/l	
62-53-3	Aniline	ND	10	0.47	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.1	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.1	0.25	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.33	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.1	0.35	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.1	0.50	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.1	0.43	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.1	0.43	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.1	0.26	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.1	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.38	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.38	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.1	0.54	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.1	0.28	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.1	0.29	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-ROX-041015-EB		
Lab Sample ID:	MC37947-2	Date Sampled:	04/10/15
Matrix:	AQ - Equipment Blank	Date Received:	04/11/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.1	0.27	ug/l	
131-11-3	Dimethyl phthalate	ND	5.1	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	0.39	2.0	0.32	ug/l	J
118-74-1	Hexachlorobenzene	ND	5.1	0.25	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.1	0.29	ug/l	
78-59-1	Isophorone	ND	5.1	0.48	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.36	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.41	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.52	ug/l	
98-95-3	Nitrobenzene	ND	5.1	0.49	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.1	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.1	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	0.26	ug/l	
110-86-1	Pyridine	ND [a]	10	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	37%	47%	10-79%
4165-62-2	Phenol-d5	30%	34%	10-72%
118-79-6	2,4,6-Tribromophenol	73%	90%	35-138%
4165-60-0	Nitrobenzene-d5	78%	79%	30-116%
321-60-8	2-Fluorobiphenyl	66%	49%	35-107%
1718-51-0	Terphenyl-d14	92%	92%	43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-ROX-041015-EB		
Lab Sample ID:	MC37947-2	Date Sampled:	04/10/15
Matrix:	AQ - Equipment Blank	Date Received:	04/11/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95136.D	1	04/14/15	MR	04/13/15	OP42654	MSI3558
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.0077	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.0086	ug/l	
120-12-7	Anthracene	ND	0.10	0.010	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.051	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.051	0.019	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.013	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	0.016	0.10	0.0076	ug/l	J
86-73-7	Fluorene	ND	0.10	0.015	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.021	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	0.013	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	0.011	ug/l	
85-01-8	Phenanthrene	ND	0.051	0.011	ug/l	
129-00-0	Pyrene	ND	0.10	0.0087	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	78%		26-121%
321-60-8	2-Fluorobiphenyl	45%		28-107%
1718-51-0	Terphenyl-d14	104%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-ROX-041015-EB		
Lab Sample ID:	MC37947-2	Date Sampled:	04/10/15
Matrix:	AQ - Equipment Blank	Date Received:	04/11/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62819.D	1	04/18/15	NK	04/16/15	OP42703	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	36.8 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0058	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0058	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	117%		60-140%
460-00-4	Bromofluorobenzene (S)	122%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-ROX-041015		
Lab Sample ID:	MC37947-3	Date Sampled:	04/10/15
Matrix:	AQ - Ground Water	Date Received:	04/11/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N96718.D	1	04/23/15	JB	n/a	n/a	MSN3560
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	2.7	10	2.0	ug/l	J
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	0.35	0.50	0.27	ug/l	J
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-ROX-041015		
Lab Sample ID:	MC37947-3	Date Sampled:	04/10/15
Matrix:	AQ - Ground Water	Date Received:	04/11/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-ROX-041015		
Lab Sample ID:	MC37947-3	Date Sampled:	04/10/15
Matrix:	AQ - Ground Water	Date Received:	04/11/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		72-133%
2037-26-5	Toluene-D8	101%		85-114%
460-00-4	4-Bromofluorobenzene	109%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-ROX-041015		
Lab Sample ID:	MC37947-3	Date Sampled:	04/10/15
Matrix:	AQ - Ground Water	Date Received:	04/11/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R43505.D	1	04/16/15	KD	04/15/15	OP42687	MSR1602
Run #2	R43441.D	1	04/14/15	KD	04/13/15	OP42653	MSR1600

	Initial Volume	Final Volume
Run #1	920 ml	1.0 ml
Run #2	900 ml	1.0 ml

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	2.7	ug/l	
95-57-8	2-Chlorophenol	ND	5.4	0.32	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.51	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	0.37	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	0.64	ug/l	
95-48-7	2-Methylphenol	ND	11	0.33	ug/l	
	3&4-Methylphenol	ND	11	0.48	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.51	ug/l	
100-02-7	4-Nitrophenol	ND	22	1.4	ug/l	
87-86-5	Pentachlorophenol	ND	11	0.38	ug/l	
108-95-2	Phenol	ND	5.4	0.35	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.49	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.49	ug/l	
62-53-3	Aniline	ND	11	0.50	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.4	0.27	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.4	0.26	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.35	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.4	0.37	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.39	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.4	0.54	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.4	0.45	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.4	0.46	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.4	0.28	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.4	0.32	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.40	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.41	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.4	0.58	ug/l	
132-64-9	Dibenzofuran	ND	2.2	0.27	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.4	0.29	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.4	0.31	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-ROX-041015		
Lab Sample ID:	MC37947-3	Date Sampled:	04/10/15
Matrix:	AQ - Ground Water	Date Received:	04/11/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.4	0.29	ug/l	
131-11-3	Dimethyl phthalate	ND	5.4	0.26	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	~~0.41~~ 4	2.2	0.35	ug/l	J 4
118-74-1	Hexachlorobenzene	ND	5.4	0.27	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.4	ug/l	
67-72-1	Hexachloroethane	ND	5.4	0.31	ug/l	
78-59-1	Isophorone	ND	5.4	0.51	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.39	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.44	ug/l	
100-01-6	4-Nitroaniline	ND	11	0.56	ug/l	
98-95-3	Nitrobenzene	ND	5.4	0.53	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.4	0.27	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.4	0.28	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.4	0.27	ug/l	
110-86-1	Pyridine	ND [a]	11	0.40	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	42%	46%	10-79%
4165-62-2	Phenol-d5	29%	35%	10-72%
118-79-6	2,4,6-Tribromophenol	86%	91%	35-138%
4165-60-0	Nitrobenzene-d5	72%	75%	30-116%
321-60-8	2-Fluorobiphenyl	61%	52%	35-107%
1718-51-0	Terphenyl-d14	88%	91%	43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-ROX-041015		
Lab Sample ID:	MC37947-3	Date Sampled:	04/10/15
Matrix:	AQ - Ground Water	Date Received:	04/11/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95137.D	1	04/14/15	MR	04/13/15	OP42654	MSI3558
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.11	0.0083	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.0093	ug/l	
120-12-7	Anthracene	ND	0.11	0.011	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.056	0.026	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.056	0.021	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.014	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.011	ug/l	
218-01-9	Chrysene	ND	0.11	0.015	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.017	ug/l	
206-44-0	Fluoranthene	0.024	0.11	0.0082	ug/l	J J
86-73-7	Fluorene	ND	0.11	0.017	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.023	ug/l	
90-12-0	1-Methylnaphthalene	0.036	2.2	0.014	ug/l	J
91-57-6	2-Methylnaphthalene	0.070	2.2	0.012	ug/l	J
85-01-8	Phenanthrene	0.019	0.056	0.012	ug/l	JB J
129-00-0	Pyrene	0.018	0.11	0.0094	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	76%		26-121%
321-60-8	2-Fluorobiphenyl	48%		28-107%
1718-51-0	Terphenyl-d14	103%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW27-ROX-041015		
Lab Sample ID:	MC37947-3	Date Sampled:	04/10/15
Matrix:	AQ - Ground Water	Date Received:	04/11/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62820.D	1	04/18/15	NK	04/16/15	OP42703	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	36.7 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0058	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0058	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	104%		60-140%
460-00-4	Bromofluorobenzene (S)	108%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW3-ROX-041015		
Lab Sample ID:	MC37947-4	Date Sampled:	04/10/15
Matrix:	AQ - Ground Water	Date Received:	04/11/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N96719.D	1	04/23/15	JB	n/a	n/a	MSN3560
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW3-ROX-041015		
Lab Sample ID:	MC37947-4	Date Sampled:	04/10/15
Matrix:	AQ - Ground Water	Date Received:	04/11/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	1.2	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	0.42	5.0	0.29	ug/l	J
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	0.46	1.0	0.22	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW3-ROX-041015		
Lab Sample ID:	MC37947-4	Date Sampled:	04/10/15
Matrix:	AQ - Ground Water	Date Received:	04/11/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		72-133%
2037-26-5	Toluene-D8	99%		85-114%
460-00-4	4-Bromofluorobenzene	102%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW3-ROX-041015		
Lab Sample ID:	MC37947-4	Date Sampled:	04/10/15
Matrix:	AQ - Ground Water	Date Received:	04/11/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R43506.D	1	04/16/15	KD	04/15/15	OP42687	MSR1602
Run #2	R43442.D	1	04/14/15	KD	04/13/15	OP42653	MSR1600

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2	980 ml	1.0 ml

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	2.7	ug/l	
95-57-8	2-Chlorophenol	ND	5.3	0.31	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.54	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.50	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	0.36	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	0.63	ug/l	
95-48-7	2-Methylphenol	ND	11	0.32	ug/l	
	3&4-Methylphenol	ND	11	0.47	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.49	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	11	0.37	ug/l	
108-95-2	Phenol	ND	5.3	0.34	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.48	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.48	ug/l	
62-53-3	Aniline	ND	11	0.49	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.27	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.26	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.34	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	0.36	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.38	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	0.53	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.44	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.45	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	0.27	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	0.31	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.39	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.40	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.56	ug/l	
132-64-9	Dibenzofuran	ND	2.1	0.26	ug/l	
84-74-2	Di-n-butyl phthalate	0.54	5.3	0.29	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.3	0.31	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW3-ROX-041015		
Lab Sample ID:	MC37947-4	Date Sampled:	04/10/15
Matrix:	AQ - Ground Water	Date Received:	04/11/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

4.4 4

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.3	0.29	ug/l	
131-11-3	Dimethyl phthalate	ND	5.3	0.26	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	~~0.73~~ U	2.1	0.34	ug/l	J U
118-74-1	Hexachlorobenzene	ND	5.3	0.26	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.3	0.30	ug/l	
78-59-1	Isophorone	ND	5.3	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.38	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.43	ug/l	
100-01-6	4-Nitroaniline	ND	11	0.55	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.51	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	0.27	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	0.27	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.27	ug/l	
110-86-1	Pyridine	ND [a]	10	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	49%	51%	10-79%
4165-62-2	Phenol-d5	34%	37%	10-72%
118-79-6	2,4,6-Tribromophenol	95%	94%	35-138%
4165-60-0	Nitrobenzene-d5	83%	80%	30-116%
321-60-8	2-Fluorobiphenyl	76%	47%	35-107%
1718-51-0	Terphenyl-d14	97%	96%	43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW3-ROX-041015		
Lab Sample ID:	MC37947-4	Date Sampled:	04/10/15
Matrix:	AQ - Ground Water	Date Received:	04/11/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95138.D	1	04/14/15	MR	04/13/15	OP42654	MSI3558
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.018	0.10	0.0077	ug/l	J
208-96-8	Acenaphthylene	ND	0.10	0.0086	ug/l	
120-12-7	Anthracene	0.019	0.10	0.010	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.051	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.051	0.019	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.013	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	0.024	0.10	0.0076	ug/l	J J
86-73-7	Fluorene	ND	0.10	0.015	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.021	ug/l	
90-12-0	1-Methylnaphthalene	0.13	2.0	0.013	ug/l	J
91-57-6	2-Methylnaphthalene	0.097	2.0	0.011	ug/l	J
85-01-8	Phenanthrene	0.026	0.051	0.011	ug/l	JB J
129-00-0	Pyrene	0.018	0.10	0.0087	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	82%		26-121%
321-60-8	2-Fluorobiphenyl	44%		28-107%
1718-51-0	Terphenyl-d14	109%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW3-ROX-041015		
Lab Sample ID:	MC37947-4	Date Sampled:	04/10/15
Matrix:	AQ - Ground Water	Date Received:	04/11/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62821.D	1	04/18/15	NK	04/16/15	OP42703	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	37.1 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0058	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0058	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	93%		60-140%
460-00-4	Bromofluorobenzene (S)	99%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-041015-HCL		
Lab Sample ID:	MC37947-5	Date Sampled:	04/10/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/11/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N96713.D	1	04/22/15	JB	n/a	n/a	MSN3560
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-041015-HCL		
Lab Sample ID:	MC37947-5	Date Sampled:	04/10/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/11/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-041015-HCL		
Lab Sample ID:	MC37947-5	Date Sampled:	04/10/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/11/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		72-133%
2037-26-5	Toluene-D8	103%		85-114%
460-00-4	4-Bromofluorobenzene	101%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-041015-ST		
Lab Sample ID:	MC37947-6	Date Sampled:	04/10/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/11/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62823.D	1	04/18/15	NK	04/16/15	OP42703	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	37.0 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0058	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0058	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	112%		60-140%
460-00-4	Bromofluorobenzene (S)	118%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

LAB (LOG#)

☐ NEXTEL (_____)
☐ CALSCIENCE (Accutest Labs: 495 Technology Ctr W Marlborough, MA 01752 (508-481-6200))
☐ OTHER (Lab Vendor # _____)
☐ NA

Lab Vendor #

Shell Oil Products Chain Of Custody Record

ECOM

Please Check Appropriate Box:
☑ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SOUCH ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER _____

Print Bill To Contact Name: Bob Bitman

PO #

INCIDENT # (ENV SERVICES): 9 7 2 1 5 6 4 0

SAP #: 3 4 0 0 5 1

☐ CHECK IF NO INCIDENT # APPLIES

DATE: 04-10-15

PAGE: 1 of 1

CONTRACT COMPANY: URS CORPORATION

ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300, ST. LOUIS, MO 63110

PROJECT CONTACT (Person or Firm Name): Elizabeth Kunkel, Bob Bitman, Lindsay Rathbow

TELEPHONE: 314-420-0100 FAX: 314-420-0482

DATA CONTACT: bob.bitman@aecom.com; elizabeth.kunkel@aecom.com; lindsay.rathbow@aecom.com

SITE ADDRESS: 600 South Central Ave; ROXANA

CITY: IL

ROXANA QUARTERLY GW / 21553720.03002

SAMPLE TO BE SHIPPED: Betty Testu & Dancy Chase

LAB USE ONLY: MC37947

TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS AFTER DAY OF ENTRY

☐ LA - SWOCB REPORT FORMAT ☐ UST AGENCY

DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD

TEMPERATURE ON RECEIPT C°: Cooler #1 Cooler #2 Cooler #3

SPECIAL INSTRUCTIONS OR NOTES:
* Please include "J" values on Reports.
* Please provide sample receipt upon login.

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEAD DISK

REQUESTED ANALYSIS

FIELD NOTES:
TEMPERATURE ON RECEIPT C°

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	PRESERVATIVE HNO3	PRESERVATIVE H2SO4	PRESERVATIVE NONE	PRESERVATIVE OTHER	NO. OF CONT.	VOC 8260C SL+TICS	VOC 8011 SL	SVOC 8270D SL+TICS	PAH 8270LL	Container PID Readings or Laboratory Notes
-1	P54-ROX-041015	04/10/15	0940	Water	2			2	2	6	X	X	X	X	0.0
-2	MN27-ROX-041015-EB		0955		2			2	2	6	X	X	X	X	
-3	MN27-ROX-041015		12:35		2			2	2	6	X	X	X	X	
-4	MN3-ROX-041015		15:05		2			2	2	6	X	X	X	X	
-5	TB-ROX-041015-HCL		0000		2					2	X				
-6	TB-ROX-041015-ST		0000						2	2		X			
															3J1, 16B
															2.1a

Relinquished by (Signature)	Relinquished by (Signature)	Date	Time
Bethlehem Buf	8066 2852 5084 FED EX	04-10-15	17:00
Relinquished by (Signature)	Relinquished by (Signature)	Date	Time
FX	[signature]	4-11-15	11:45
Relinquished by (Signature)	Relinquished by (Signature)	Date	Time

5.1

5

MC37947: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC37947 **Client:** URS **Project:** 90 SOUTH CENTRAL

Date / Time Received: 4/11/2015 11:45:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (2.1/2.1):

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	☑ ☐	3. COC Present:	☑ ☐
2. Custody Seals Intact:	☑ ☐	4. Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Thermometer ID:	G1;
3. Cooler media:	Ice (Bag)
4. No. Coolers:	1

Quality Control Preservation	Y or N	N/A
1. Trip Blank present / cooler:	☑ ☐	☐
2. Trip Blank listed on COC:	☑ ☐	☐
3. Samples preserved properly:	☑ ☐	
4. VOCs headspace free:	☑ ☐	☐

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	☑ ☐
2. Container labeling complete:	☑ ☐
3. Sample container label / COC agree:	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	☑ ☐
2. All containers accounted for:	☑ ☐
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear:	☑ ☐	
2. Bottles received for unspecified tests	☐ ☑	
3. Sufficient volume recvd for analysis:	☑ ☐	
4. Compositing instructions clear:	☐ ☐	☑
5. Filtering instructions clear:	☐ ☐	☑

Comments

Accutest Laboratories
V:(508) 481-5200
495 Technology Center West, Bldg One
F: (508) 481-7753
Marlborough, MA 01752
www.accutest.com

MC37947: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC37947

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

5.2

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC37947-1 Collected: 10-APR-15 09:40 By: BTDC Received: 11-APR-15 By: P54-ROX-041015						
MC37947-1	SW846 8270D	14-APR-15 17:17	KD	13-APR-15	MT	AB8270SL+
MC37947-1	SW846 8270D BY SIM	14-APR-15 19:13	MR	13-APR-15	MT	B8270SIMSL
MC37947-1	SW846 8270D	16-APR-15 19:57	KD	15-APR-15	AZ	AB8270SL+
MC37947-1	SW846 8011	18-APR-15 00:21	NK	16-APR-15	FT	V8011SL
MC37947-1	SW846 8260C	23-APR-15 01:34	JB			V8260SL+
MC37947-2 Collected: 10-APR-15 09:55 By: BTDC Received: 11-APR-15 By: MW27-ROX-041015-EB						
MC37947-2	SW846 8270D	14-APR-15 17:42	KD	13-APR-15	MT	AB8270SL+
MC37947-2	SW846 8270D BY SIM	14-APR-15 19:38	MR	13-APR-15	MT	B8270SIMSL
MC37947-2	SW846 8270D	16-APR-15 20:22	KD	15-APR-15	AZ	AB8270SL+
MC37947-2	SW846 8011	18-APR-15 00:50	NK	16-APR-15	FT	V8011SL
MC37947-2	SW846 8260C	22-APR-15 23:12	JB			V8260SL+
MC37947-3 Collected: 10-APR-15 12:35 By: BTDC Received: 11-APR-15 By: MW27-ROX-041015						
MC37947-3	SW846 8270D	14-APR-15 18:08	KD	13-APR-15	MT	AB8270SL+
MC37947-3	SW846 8270D BY SIM	14-APR-15 20:02	MR	13-APR-15	MT	B8270SIMSL
MC37947-3	SW846 8270D	16-APR-15 20:47	KD	15-APR-15	AZ	AB8270SL+
MC37947-3	SW846 8011	18-APR-15 01:19	NK	16-APR-15	FT	V8011SL
MC37947-3	SW846 8260C	23-APR-15 02:02	JB			V8260SL+
MC37947-4 Collected: 10-APR-15 15:05 By: BTDC Received: 11-APR-15 By: MW3-ROX-041015						
MC37947-4	SW846 8270D	14-APR-15 18:33	KD	13-APR-15	MT	AB8270SL+
MC37947-4	SW846 8270D BY SIM	14-APR-15 20:27	MR	13-APR-15	MT	B8270SIMSL
MC37947-4	SW846 8270D	16-APR-15 21:12	KD	15-APR-15	AZ	AB8270SL+
MC37947-4	SW846 8011	18-APR-15 01:48	NK	16-APR-15	FT	V8011SL
MC37947-4	SW846 8260C	23-APR-15 02:30	JB			V8260SL+
MC37947-5 Collected: 10-APR-15 00:00 By: BTDC Received: 11-APR-15 By: TB-ROX-041015-HCL						
MC37947-5	SW846 8260C	22-APR-15 23:40	JB			V8260SL+

ACCUTEST LABORATORIES
MC37947

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC37947

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC37947-6 Collected: 10-APR-15 00:00 By: BTDC Received: 11-APR-15 By: TB-ROX-041015-ST						
MC37947-6	SW846 8011	18-APR-15 02:48	NK	16-APR-15	FT	V8011SL

Accutest Internal Chain of Custody

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Received: 04/11/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC37947-1.2	Walk In Ref #22	Forrest Thompson	04/13/15 14:17	Retrieve from Storage
MC37947-1.3	VOC Ref #3	Jaclyn Bergeron	04/22/15 14:21	Retrieve from Storage
MC37947-1.3	Jaclyn Bergeron	GCMSN	04/22/15 14:21	Load on Instrument
MC37947-1.3	GCMSN	Jaclyn Bergeron	04/23/15 08:52	Unload from Instrument
MC37947-1.3	Jaclyn Bergeron	VOC Ref #3	04/23/15 08:52	Return to Storage
MC37947-1.4	VOC Ref #3	Jaclyn Bergeron	04/22/15 14:21	Retrieve from Storage
MC37947-1.4	Jaclyn Bergeron	GCMSN	04/22/15 14:21	Load on Instrument
MC37947-1.4	GCMSN	Jaclyn Bergeron	04/23/15 08:52	Unload from Instrument
MC37947-1.4	Jaclyn Bergeron	VOC Ref #3	04/23/15 08:52	Return to Storage
MC37947-1.5	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC37947-1.5	Nicole Estey		04/16/15 23:05	Depleted
MC37947-2.1	Walk In Ref #22	Forrest Thompson	04/13/15 14:17	Retrieve from Storage
MC37947-2.4	VOC Ref #3	Jaclyn Bergeron	04/22/15 14:21	Retrieve from Storage
MC37947-2.4	Jaclyn Bergeron	GCMSN	04/22/15 14:21	Load on Instrument
MC37947-2.4	GCMSN	Jaclyn Bergeron	04/23/15 08:52	Unload from Instrument
MC37947-2.4	Jaclyn Bergeron	VOC Ref #3	04/23/15 08:52	Return to Storage
MC37947-2.6	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC37947-2.6	Nicole Estey		04/16/15 23:05	Depleted
MC37947-3.1	Walk In Ref #22	Forrest Thompson	04/15/15 17:08	Retrieve from Storage
MC37947-3.2	Walk In Ref #22	Forrest Thompson	04/13/15 14:17	Retrieve from Storage
MC37947-3.4	VOC Ref #3	Jaclyn Bergeron	04/22/15 14:21	Retrieve from Storage
MC37947-3.4	Jaclyn Bergeron	GCMSN	04/22/15 14:21	Load on Instrument
MC37947-3.4	GCMSN	Jaclyn Bergeron	04/23/15 08:52	Unload from Instrument
MC37947-3.4	Jaclyn Bergeron	VOC Ref #3	04/23/15 08:52	Return to Storage
MC37947-3.5	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC37947-3.5	Nicole Estey	VOC Ref #3	04/16/15 23:04	Return to Storage
MC37947-3.6	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC37947-3.6	Nicole Estey		04/16/15 23:05	Depleted
MC37947-4.1	Walk In Ref #22	Forrest Thompson	04/13/15 14:17	Retrieve from Storage
MC37947-4.2	Walk In Ref #22	Forrest Thompson	04/15/15 17:08	Retrieve from Storage

Accutest Internal Chain of Custody

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL.
Received: 04/11/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC37947-4.3	VOC Ref #3	Jaclyn Bergeron	04/22/15 14:21	Retrieve from Storage
MC37947-4.3	Jaclyn Bergeron	GCMSN	04/22/15 14:21	Load on Instrument
MC37947-4.3	GCMSN	Jaclyn Bergeron	04/23/15 08:52	Unload from Instrument
MC37947-4.3	Jaclyn Bergeron	VOC Ref #3	04/23/15 08:52	Return to Storage
MC37947-4.6	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC37947-4.6	Nicole Estey		04/16/15 23:05	Depleted
MC37947-5.1	VOC Ref #3	Jaclyn Bergeron	04/22/15 14:21	Retrieve from Storage
MC37947-5.1	Jaclyn Bergeron	GCMSN	04/22/15 14:21	Load on Instrument
MC37947-5.1	GCMSN	Jaclyn Bergeron	04/23/15 08:52	Unload from Instrument
MC37947-5.1	Jaclyn Bergeron	VOC Ref #3	04/23/15 08:52	Return to Storage
MC37947-6.1	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC37947-6.1	Nicole Estey		04/16/15 23:05	Depleted

53

New England ACCUTEST LABORATORIES

GC/MS Volatiles

6

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3560-MB	N96710.D	1	04/22/15	JB	n/a	n/a	MSN3560

The QC reported here applies to the following samples: Method: SW846 8260C

MC37947-1, MC37947-2, MC37947-3, MC37947-4, MC37947-5

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	

Method Blank Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3560-MB	N96710.D	1	04/22/15	JB	n/a	n/a	MSN3560

The QC reported here applies to the following samples: Method: SW846 8260C

MC37947-1, MC37947-2, MC37947-3, MC37947-4, MC37947-5

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

Method Blank Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3560-MB	N96710.D	1	04/22/15	JB	n/a	n/a	MSN3560

The QC reported here applies to the following samples: Method: SW846 8260C

MC37947-1, MC37947-2, MC37947-3, MC37947-4, MC37947-5

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	100%	72-133%
2037-26-5	Toluene-D8	100%	85-114%
460-00-4	4-Bromofluorobenzene	100%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3560-BS	N96707.D	1	04/22/15	JB	n/a	n/a	MSN3560
MSN3560-BSD	N96708.D	1	04/22/15	JB	n/a	n/a	MSN3560

The QC reported here applies to the following samples: Method: SW846 8260C

MC37947-1, MC37947-2, MC37947-3, MC37947-4, MC37947-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	21.3	43	21.0	42	1	14-172/25
107-02-8	Acrolein	250	307	123	316	126	3	10-168/25
107-13-1	Acrylonitrile	50	48.7	97	49.3	99	1	41-158/25
71-43-2	Benzene	50	41.6	83	41.7	83	0	68-127/25
108-86-1	Bromobenzene	50	41.2	82	40.4	81	2	74-124/25
74-97-5	Bromochloromethane	50	46.8	94	46.6	93	0	68-135/25
75-27-4	Bromodichloromethane	50	40.4	81	40.3	81	0	72-144/25
75-25-2	Bromoform	50	43.4	87	43.9	88	1	59-147/25
74-83-9	Bromomethane	50	50.3	101	49.9	100	1	34-175/25
78-93-3	2-Butanone (MEK)	50	37.7	75	37.9	76	1	43-147/25
104-51-8	n-Butylbenzene	50	45.1	90	43.7	87	3	77-136/25
135-98-8	sec-Butylbenzene	50	39.5	79	39.2	78	1	75-134/25
98-06-6	tert-Butylbenzene	50	37.7	75	37.0	74	2	74-132/25
75-15-0	Carbon disulfide	50	42.0	84	42.1	84	0	34-171/25
56-23-5	Carbon tetrachloride	50	40.1	80	39.6	79	1	55-153/25
108-90-7	Chlorobenzene	50	42.4	85	42.4	85	0	71-123/25
75-00-3	Chloroethane	50	43.8	88	44.5	89	2	58-175/25
110-75-8	2-Chloroethyl vinyl ether	50	42.9	86	42.7	85	0	44-169/25
67-66-3	Chloroform	50	41.8	84	42.0	84	0	67-136/25
74-87-3	Chloromethane	50	42.8	86	45.9	92	7	25-182/25
95-49-8	o-Chlorotoluene	50	38.2	76	37.7	75	1	72-130/25
106-43-4	p-Chlorotoluene	50	39.1	78	38.4	77	2	73-127/25
124-48-1	Dibromochloromethane	50	42.5	85	42.9	86	1	73-139/25
95-50-1	1,2-Dichlorobenzene	50	40.9	82	39.8	80	3	77-125/25
541-73-1	1,3-Dichlorobenzene	50	39.9	80	39.8	80	0	77-124/25
106-46-7	1,4-Dichlorobenzene	50	40.6	81	40.3	81	1	73-128/25
75-71-8	Dichlorodifluoromethane	50	46.1	92	45.9	92	0	23-157/25
75-34-3	1,1-Dichloroethane	50	41.0	82	41.0	82	0	63-145/25
107-06-2	1,2-Dichloroethane	50	37.1	74	37.1	74	0	58-145/25
75-35-4	1,1-Dichloroethene	50	43.2	86	43.3	87	0	56-158/25
156-59-2	cis-1,2-Dichloroethene	50	45.9	92	47.2	94	3	67-133/25
156-60-5	trans-1,2-Dichloroethene	50	46.7	93	46.0	92	2	66-136/25
78-87-5	1,2-Dichloropropane	50	42.9	86	42.7	85	0	75-133/25
142-28-9	1,3-Dichloropropane	50	45.0	90	44.9	90	0	70-127/25
594-20-7	2,2-Dichloropropane	50	43.3	87	42.3	85	2	52-163/25
563-58-6	1,1-Dichloropropene	50	39.2	78	39.3	79	0	77-140/25

* = Outside of Control Limits.

6.2.1

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3560-BS	N96707.D	1	04/22/15	JB	n/a	n/a	MSN3560
MSN3560-BSD	N96708.D	1	04/22/15	JB	n/a	n/a	MSN3560

The QC reported here applies to the following samples: Method: SW846 8260C

MC37947-1, MC37947-2, MC37947-3, MC37947-4, MC37947-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	50	48.1	96	48.0	96	0	74-141/25
10061-02-6	trans-1,3-Dichloropropene	50	44.9	90	45.2	90	1	77-143/25
123-91-1	1,4-Dioxane	250	217	87	214	86	1	30-182/25
97-63-2	Ethyl methacrylate	50	47.8	96	47.1	94	1	64-131/25
100-41-4	Ethylbenzene	50	43.2	86	43.6	87	1	71-129/25
87-68-3	Hexachlorobutadiene	50	42.9	86	42.1	84	2	64-146/25
591-78-6	2-Hexanone	50	32.0	64	32.3	65	1	22-163/25
98-82-8	Isopropylbenzene	50	39.1	78	38.4	77	2	72-133/25
99-87-6	p-Isopropyltoluene	50	42.0	84	41.5	83	1	77-134/25
1634-04-4	Methyl Tert Butyl Ether	50	42.9	86	43.2	86	1	46-151/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	39.9	80	40.1	80	1	47-145/25
74-95-3	Methylene bromide	50	39.1	78	39.7	79	2	70-132/25
75-09-2	Methylene chloride	50	41.1	82	42.4	85	3	55-146/25
91-20-3	Naphthalene	50	32.0	64	31.6	63	1	39-176/25
103-65-1	n-Propylbenzene	50	39.3	79	39.0	78	1	74-134/25
100-42-5	Styrene	50	47.0	94	46.9	94	0	71-134/25
630-20-6	1,1,1,2-Tetrachloroethane	50	42.8	86	43.1	86	1	70-137/25
79-34-5	1,1,2,2-Tetrachloroethane	50	43.6	87	43.4	87	0	58-145/25
127-18-4	Tetrachloroethene	50	44.0	88	43.6	87	1	63-137/25
108-88-3	Toluene	50	44.8	90	44.0	88	2	75-126/25
87-61-6	1,2,3-Trichlorobenzene	50	39.5	79	38.4	77	3	27-181/25
120-82-1	1,2,4-Trichlorobenzene	50	39.7	79	38.7	77	3	40-176/25
71-55-6	1,1,1-Trichloroethane	50	41.2	82	41.0	82	0	68-144/25
79-00-5	1,1,2-Trichloroethane	50	43.7	87	44.0	88	1	72-133/25
79-01-6	Trichloroethene	50	40.8	82	40.4	81	1	73-126/25
75-69-4	Trichlorofluoromethane	50	44.1	88	43.5	87	1	43-152/25
96-18-4	1,2,3-Trichloropropane	50	42.5	85	41.8	84	2	58-141/25
95-63-6	1,2,4-Trimethylbenzene	50	40.6	81	40.0	80	1	76-129/25
108-67-8	1,3,5-Trimethylbenzene	50	41.8	84	41.3	83	1	71-127/25
108-05-4	Vinyl Acetate	50	71.7	143	73.7	147	3	10-170/25
75-01-4	Vinyl chloride	50	40.5	81	40.7	81	0	36-167/25
	m,p-Xylene	100	85.8	86	85.6	86	0	68-130/25
95-47-6	o-Xylene	50	42.0	84	41.9	84	0	69-126/25
1330-20-7	Xylene (total)	150	128	85	127	85	1	67-129/25

* = Outside of Control Limits.

6.2.1

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3560-BS	N96707.D	1	04/22/15	JB	n/a	n/a	MSN3560
MSN3560-BSD	N96708.D	1	04/22/15	JB	n/a	n/a	MSN3560

6.2.1

The QC reported here applies to the following samples: Method: SW846 8260C

MC37947-1, MC37947-2, MC37947-3, MC37947-4, MC37947-5

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	98%	98%	72-133%
2037-26-5	Toluene-D8	99%	100%	85-114%
460-00-4	4-Bromofluorobenzene	92%	93%	70-134%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC37947-1MS	N96727.D	5	04/23/15	JB	n/a	n/a	MSN3560
MC37947-1MSD	N96728.D	5	04/23/15	JB	n/a	n/a	MSN3560
MC37947-1	N96717.D	1	04/23/15	JB	n/a	n/a	MSN3560

The QC reported here applies to the following samples: Method: SW846 8260C

MC37947-1, MC37947-2, MC37947-3, MC37947-4, MC37947-5

CAS No.	Compound	MC37947-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250	135	54	250	128	51	5	10-135/30
107-02-8	Acrolein	ND		1250	1430	114	1250	1420	114	1	10-175/30
107-13-1	Acrylonitrile	ND		250	239	96	250	251	100	5	37-163/30
71-43-2	Benzene	ND		250	319	128	250	247	99	25	61-138/30
108-86-1	Bromobenzene	ND		250	193	77	250	198	79	3	71-126/30
74-97-5	Bromochloromethane	ND		250	244	98	250	245	98	0	70-136/30
75-27-4	Bromodichloromethane	ND		250	204	82	250	202	81	1	73-146/30
75-25-2	Bromoform	ND		250	212	85	250	215	86	1	54-147/30
74-83-9	Bromomethane	ND		250	235	94	250	261	104	10	20-171/30
78-93-3	2-Butanone (MEK)	ND		250	201	80	250	192	77	5	33-127/30
104-51-8	n-Butylbenzene	ND		250	204	82	250	205	82	0	69-138/30
135-98-8	sec-Butylbenzene	ND		250	185	74	250	187	75	1	71-137/30
98-06-6	tert-Butylbenzene	ND		250	177	71	250	177	71	0	68-137/30
75-15-0	Carbon disulfide	ND		250	238	95	250	238	95	0	29-178/30
56-23-5	Carbon tetrachloride	ND		250	206	82	250	205	82	0	57-155/30
108-90-7	Chlorobenzene	ND		250	203	81	250	206	82	1	69-126/30
75-00-3	Chloroethane	ND		250	228	91	250	229	92	0	57-182/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	215	86	250	219	88	2	10-200/30
67-66-3	Chloroform	ND		250	215	86	250	215	86	0	66-142/30
74-87-3	Chloromethane	ND		250	219	88	250	205	82	7	18-182/30
95-49-8	o-Chlorotoluene	ND		250	181	72	250	183	73	1	60-145/30
106-43-4	p-Chlorotoluene	ND		250	184	74	250	183	73	1	64-138/30
124-48-1	Dibromochloromethane	ND		250	206	82	250	211	84	2	71-138/30
95-50-1	1,2-Dichlorobenzene	ND		250	191	76	250	197	79	3	75-125/30
541-73-1	1,3-Dichlorobenzene	ND		250	189	76	250	191	76	1	74-125/30
106-46-7	1,4-Dichlorobenzene	ND		250	190	76	250	195	78	3	72-128/30
75-71-8	Dichlorodifluoromethane	ND		250	258	103	250	238	95	8	23-159/30
75-34-3	1,1-Dichloroethane	ND		250	217	87	250	214	86	1	63-150/30
107-06-2	1,2-Dichloroethane	ND		250	192	77	250	188	75	2	57-150/30
75-35-4	1,1-Dichloroethene	ND		250	243	97	250	243	97	0	53-165/30
156-59-2	cis-1,2-Dichloroethene	ND		250	245	98	250	249	100	2	66-138/30
156-60-5	trans-1,2-Dichloroethene	ND		250	246	98	250	252	101	2	65-141/30
78-87-5	1,2-Dichloropropane	ND		250	215	86	250	219	88	2	76-136/30
142-28-9	1,3-Dichloropropane	ND		250	217	87	250	221	88	2	71-127/30
594-20-7	2,2-Dichloropropane	ND		250	178	71	250	176	70	1	33-175/30
563-58-6	1,1-Dichloropropene	ND		250	206	82	250	206	82	0	76-145/30

* = Outside of Control Limits.

6.3.1

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC37947-1MS	N96727.D	5	04/23/15	JB	n/a	n/a	MSN3560
MC37947-1MSD	N96728.D	5	04/23/15	JB	n/a	n/a	MSN3560
MC37947-1	N96717.D	1	04/23/15	JB	n/a	n/a	MSN3560

The QC reported here applies to the following samples: Method: SW846 8260C

MC37947-1, MC37947-2, MC37947-3, MC37947-4, MC37947-5

6.3.1

CAS No.	Compound	MC37947-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		250	236	94	250	236	94	0	75-137/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	220	88	250	227	91	3	77-139/30
123-91-1	1,4-Dioxane	ND		1250	1220	98	1250	1120	90	9	29-167/30
97-63-2	Ethyl methacrylate	ND		250	248	99	250	251	100	1	60-135/30
100-41-4	Ethylbenzene	ND		250	222	89	250	212	85	5	61-137/30
87-68-3	Hexachlorobutadiene	ND		250	198	79	250	202	81	2	59-141/30
591-78-6	2-Hexanone	ND		250	161	64	250	162	65	1	12-141/30
98-82-8	Isopropylbenzene	ND		250	186	74	250	183	73	2	64-141/30
99-87-6	p-Isopropyltoluene	ND		250	195	78	250	194	78	1	73-135/30
1634-04-4	Methyl Tert Butyl Ether	ND		250	231	92	250	230	92	0	34-160/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	211	84	250	212	85	0	47-143/30
74-95-3	Methylene bromide	ND		250	205	82	250	207	83	1	73-132/30
75-09-2	Methylene chloride	ND		250	224	90	250	221	88	1	52-154/30
91-20-3	Naphthalene	ND		250	190	76	250	179	72	6	21-185/30
103-65-1	n-Propylbenzene	ND		250	185	74	250	182	73	2	66-141/30
100-42-5	Styrene	ND		250	221	88	250	225	90	2	60-142/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	205	82	250	204	82	0	69-138/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	213	85	250	211	84	1	58-147/30
127-18-4	Tetrachloroethene	ND		250	211	84	250	213	85	1	60-140/30
108-88-3	Toluene	ND		250	280	112	250	244	98	14	74-131/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	183	73	250	202	81	10	12-184/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	179	72	250	193	77	8	30-175/30
71-55-6	1,1,1-Trichloroethane	ND		250	219	88	250	215	86	2	67-151/30
79-00-5	1,1,2-Trichloroethane	ND		250	224	90	250	225	90	0	73-134/30
79-01-6	Trichloroethene	ND		250	207	83	250	211	84	2	68-133/30
75-69-4	Trichlorofluoromethane	ND		250	227	91	250	221	88	3	40-159/30
96-18-4	1,2,3-Trichloropropane	ND		250	202	81	250	201	80	0	54-141/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	197	79	250	191	76	3	62-142/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	194	78	250	193	77	1	62-133/30
108-05-4	Vinyl Acetate	ND		250	374	150	250	364	146	3	10-169/30
75-01-4	Vinyl chloride	ND		250	220	88	250	214	86	3	29-176/30
	m,p-Xylene	ND		500	463	93	500	430	86	7	58-139/30
95-47-6	o-Xylene	ND		250	219	88	250	207	83	6	61-135/30
1330-20-7	Xylene (total)	ND		750	682	91	750	637	85	7	60-136/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC37947-1MS	N96727.D	5	04/23/15	JB	n/a	n/a	MSN3560
MC37947-1MSD	N96728.D	5	04/23/15	JB	n/a	n/a	MSN3560
MC37947-1	N96717.D	1	04/23/15	JB	n/a	n/a	MSN3560

The QC reported here applies to the following samples: Method: SW846 8260C

MC37947-1, MC37947-2, MC37947-3, MC37947-4, MC37947-5

CAS No.	Surrogate Recoveries	MS	MSD	MC37947-1	Limits
1868-53-7	Dibromofluoromethane	102%	99%	105%	72-133%
2037-26-5	Toluene-D8	102%	102%	102%	85-114%
460-00-4	4-Bromofluorobenzene	91%	90%	105%	70-134%

* = Outside of Control Limits.

Volatile Internal Standard Area Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSN3560-CC3519	Injection Date:	04/22/15
Lab File ID:	N96706.D	Injection Time:	20:23
Instrument ID:	GCMSN	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	511244	9.11	754539	9.98	448724	13.23	364537	15.78	267230	6.71
Upper Limit [a]	1022488	9.61	1509078	10.48	897448	13.73	729074	16.28	534460	7.21
Lower Limit [b]	255622	8.61	377270	9.48	224362	12.73	182269	15.28	133615	6.21
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSN3560-BS	512370	9.11	762250	9.98	457126	13.23	360884	15.78	262361	6.71
MSN3560-BSD	515520	9.11	766306	9.98	459355	13.23	368186	15.78	263235	6.71
MSN3560-MB	474553	9.11	706993	9.98	406902	13.23	291932	15.79	264841	6.74
ZZZZZZ	466926	9.11	702229	9.98	407595	13.23	285401	15.79	262610	6.74
MC37947-2	450837	9.11	666460	9.98	383016	13.23	262483	15.79	235596	6.74
MC37947-5	421198	9.11	625742	9.98	380487	13.23	266611	15.79	247576	6.74
ZZZZZZ	407551	9.12	605945	9.98	370568	13.23	252889	15.79	235661	6.74
ZZZZZZ	389549	9.11	584239	9.98	352238	13.23	240717	15.79	220064	6.74
ZZZZZZ	387342	9.12	577484	9.98	355244	13.23	242233	15.79	241065	6.74
MC37947-1	376898	9.11	557844	9.98	351463	13.23	240157	15.79	232505	6.74
MC37947-3	373280	9.12	549841	9.98	339620	13.23	221573	15.79	191880	6.74
MC37947-4	358428	9.12	541276	9.98	338164	13.23	240665	15.79	232392	6.74
ZZZZZZ	361654	9.11	544633	9.98	339042	13.23	225758	15.79	224954	6.74
ZZZZZZ	348053	9.12	514060	9.98	326847	13.23	225613	15.79	213067	6.73
MC37947-1MS	489492	9.11	743813	9.98	473785	13.23	380480	15.78	295629	6.70
MC37947-1MSD	498674	9.11	751647	9.98	473510	13.23	380931	15.79	285873	6.71

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8260C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC37947-1	N96717.D	105	102	105
MC37947-2	N96712.D	99	99	103
MC37947-3	N96718.D	104	101	109
MC37947-4	N96719.D	107	99	102
MC37947-5	N96713.D	104	103	101
MC37947-1MS	N96727.D	102	102	91
MC37947-1MSD	N96728.D	99	102	90
MSN3560-BS	N96707.D	98	99	92
MSN3560-BSD	N96708.D	98	100	93
MSN3560-MB	N96710.D	100	100	100

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	72-133%
S2 = Toluene-D8	85-114%
S3 = 4-Bromofluorobenzene	70-134%

6.5.1

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42653-MB	R43434.D	1	04/14/15	KD	04/13/15	OP42653	MSR1600

The QC reported here applies to the following samples: Method: SW846 8270D

MC37947-1, MC37947-2, MC37947-3, MC37947-4

CAS No.	Compound	Result	RL	MDL	Units	Q
110-86-1	Pyridine	ND	10	0.36	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	41%	10-79%
4165-62-2	Phenol-d5	30%	10-72%
118-79-6	2,4,6-Tribromophenol	81%	35-138%
4165-60-0	Nitrobenzene-d5	71%	30-116%
321-60-8	2-Fluorobiphenyl	55%	35-107%
1718-51-0	Terphenyl-d14	80%	43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

7.1.1

7

Method Blank Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42687-MB	R43498.D	1	04/16/15	KD	04/15/15	OP42687	MSR1602

The QC reported here applies to the following samples: Method: SW846 8270D

MC37947-1, MC37947-2, MC37947-3, MC37947-4

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.5	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.29	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.51	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.47	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.34	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.59	ug/l	
95-48-7	2-Methylphenol	ND	10	0.30	ug/l	
	3&4-Methylphenol	ND	10	0.44	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.47	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.35	ug/l	
108-95-2	Phenol	ND	5.0	0.32	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.45	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.45	ug/l	
62-53-3	Aniline	ND	10	0.46	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.25	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.24	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.32	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.34	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.49	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.42	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.42	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.26	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.37	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.38	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.53	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.27	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	0.29	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.27	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.24	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	0.47	2.0	0.32	ug/l	J
118-74-1	Hexachlorobenzene	ND	5.0	0.24	ug/l	

7.1.2

7

Method Blank Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42687-MB	R43498.D	1	04/16/15	KD	04/15/15	OP42687	MSR1602

The QC reported here applies to the following samples: Method: SW846 8270D

MC37947-1, MC37947-2, MC37947-3, MC37947-4

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.28	ug/l	
78-59-1	Isophorone	ND	5.0	0.47	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.36	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.40	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.51	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.48	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.25	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.25	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	50%	10-79%
4165-62-2	Phenol-d5	33%	10-72%
118-79-6	2,4,6-Tribromophenol	93%	35-138%
4165-60-0	Nitrobenzene-d5	80%	30-116%
321-60-8	2-Fluorobiphenyl	77%	35-107%
1718-51-0	Terphenyl-d14	96%	43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

7.1.2

7

Method Blank Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42654-MB	I95130.D	1	04/14/15	MR	04/13/15	OP42654	MSI3558

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC37947-1, MC37947-2, MC37947-3, MC37947-4

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.0075	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.0084	ug/l	
120-12-7	Anthracene	ND	0.10	0.0098	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.015	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.019	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.013	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.0074	ug/l	
86-73-7	Fluorene	ND	0.10	0.015	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.020	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	0.012	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	0.011	ug/l	
85-01-8	Phenanthrene	0.016	0.050	0.011	ug/l	J
129-00-0	Pyrene	ND	0.10	0.0085	ug/l	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	71%	26-121%
321-60-8	2-Fluorobiphenyl	50%	28-107%
1718-51-0	Terphenyl-d14	90%	29-129%

7.1.3

Blank Spike Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42653-BS	R43435.D	1	04/14/15	KD	04/13/15	OP42653	MSR1600

The QC reported here applies to the following samples: Method: SW846 8270D

MC37947-1, MC37947-2, MC37947-3, MC37947-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
110-86-1	Pyridine	50	19.1	38	10-77

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	42%	10-79%
4165-62-2	Phenol-d5	31%	10-72%
118-79-6	2,4,6-Tribromophenol	76%	35-138%
4165-60-0	Nitrobenzene-d5	69%	30-116%
321-60-8	2-Fluorobiphenyl	54%	35-107%
1718-51-0	Terphenyl-d14	78%	43-135%

7.2.1

7

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42687-BS	R43499.D	1	04/16/15	KD	04/15/15	OP42687	MSR1602

The QC reported here applies to the following samples: Method: SW846 8270D

MC37947-1, MC37947-2, MC37947-3, MC37947-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	50	17.7	35	10-73
95-57-8	2-Chlorophenol	50	39.1	78	47-106
59-50-7	4-Chloro-3-methyl phenol	50	42.5	85	50-111
120-83-2	2,4-Dichlorophenol	50	45.0	90	53-114
105-67-9	2,4-Dimethylphenol	50	41.2	82	23-110
51-28-5	2,4-Dinitrophenol	50	31.3	63	10-156
534-52-1	4,6-Dinitro-o-cresol	50	41.1	82	17-159
95-48-7	2-Methylphenol	50	37.2	74	40-92
	3&4-Methylphenol	100	72.3	72	38-86
88-75-5	2-Nitrophenol	50	42.2	84	53-115
100-02-7	4-Nitrophenol	50	16.5	33	10-83
87-86-5	Pentachlorophenol	50	41.5	83	41-122
108-95-2	Phenol	50	18.0	36	15-55
95-95-4	2,4,5-Trichlorophenol	50	48.1	96	52-120
88-06-2	2,4,6-Trichlorophenol	50	44.2	88	53-119
62-53-3	Aniline	50	17.4	35	26-87
101-55-3	4-Bromophenyl phenyl ether	50	49.5	99	65-127
85-68-7	Butyl benzyl phthalate	50	44.0	88	68-128
100-51-6	Benzyl Alcohol	50	17.2	34	13-108
91-58-7	2-Chloronaphthalene	50	45.4	91	58-120
106-47-8	4-Chloroaniline	50	37.5	75	48-106
111-91-1	bis(2-Chloroethoxy)methane	50	42.5	85	42-118
111-44-4	bis(2-Chloroethyl)ether	50	39.9	80	35-123
108-60-1	bis(2-Chloroisopropyl)ether	50	44.4	89	37-160
7005-72-3	4-Chlorophenyl phenyl ether	50	47.7	95	57-121
122-66-7	1,2-Diphenylhydrazine	50	45.9	92	54-128
121-14-2	2,4-Dinitrotoluene	50	45.5	91	64-127
606-20-2	2,6-Dinitrotoluene	50	45.6	91	55-135
91-94-1	3,3'-Dichlorobenzidine	50	28.5	57	49-141
132-64-9	Dibenzofuran	50	45.1	90	60-107
84-74-2	Di-n-butyl phthalate	50	46.0	92	68-117
117-84-0	Di-n-octyl phthalate	50	44.3	89	60-139
84-66-2	Diethyl phthalate	50	45.8	92	51-127
131-11-3	Dimethyl phthalate	50	46.0	92	22-147
117-81-7	bis(2-Ethylhexyl)phthalate	50	46.2	92	69-133
118-74-1	Hexachlorobenzene	50	50.2	100	62-131

* = Outside of Control Limits.

7.2.2

7

Blank Spike Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL.

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42687-BS	R43499.D	1	04/16/15	KD	04/15/15	OP42687	MSR1602

The QC reported here applies to the following samples: Method: SW846 8270D

MC37947-1, MC37947-2, MC37947-3, MC37947-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	8.3	17	10-74
67-72-1	Hexachloroethane	50	30.0	60	15-104
78-59-1	Isophorone	50	37.5	75	44-110
88-74-4	2-Nitroaniline	50	45.8	92	63-123
99-09-2	3-Nitroaniline	50	37.2	74	63-112
100-01-6	4-Nitroaniline	50	38.7	77	58-114
98-95-3	Nitrobenzene	50	41.4	83	37-130
62-75-9	n-Nitrosodimethylamine	50	29.6	59	18-80
621-64-7	N-Nitroso-di-n-propylamine	50	41.4	83	44-128
86-30-6	N-Nitrosodiphenylamine	50	42.2	84	62-107

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	52%	10-79%
4165-62-2	Phenol-d5	37%	10-72%
118-79-6	2,4,6-Tribromophenol	98%	35-138%
4165-60-0	Nitrobenzene-d5	83%	30-116%
321-60-8	2-Fluorobiphenyl	66%	35-107%
1718-51-0	Terphenyl-d14	97%	43-135%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42654-BS	I95131.D	1	04/14/15	MR	04/13/15	OP42654	MSI3558

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC37947-1, MC37947-2, MC37947-3, MC37947-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	30.6	61	45-116
208-96-8	Acenaphthylene	50	29.5	59	34-110
120-12-7	Anthracene	50	32.7	65	50-117
56-55-3	Benzo(a)anthracene	50	37.5	75	55-139
50-32-8	Benzo(a)pyrene	50	35.0	70	48-131
205-99-2	Benzo(b)fluoranthene	50	35.9	72	49-141
191-24-2	Benzo(g,h,i)perylene	50	34.5	69	60-130
207-08-9	Benzo(k)fluoranthene	50	31.7	63	49-133
218-01-9	Chrysene	50	34.6	69	52-128
53-70-3	Dibenzo(a,h)anthracene	50	34.3	69	60-136
206-44-0	Fluoranthene	50	35.7	71	46-132
86-73-7	Fluorene	50	32.2	64	53-120
193-39-5	Indeno(1,2,3-cd)pyrene	50	35.0	70	57-134
90-12-0	1-Methylnaphthalene	50	22.9	46	41-105
91-57-6	2-Methylnaphthalene	50	23.1	46	36-111
85-01-8	Phenanthrene	50	31.9	64	50-120
129-00-0	Pyrene	50	36.4	73	48-127

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	73%	26-121%
321-60-8	2-Fluorobiphenyl	51%	28-107%
1718-51-0	Terphenyl-d14	85%	29-129%

* = Outside of Control Limits.

7.2.3

7

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42653-MS	R43436.D	1	04/14/15	KD	04/13/15	OP42653	MSR1600
OP42653-MSD	R43437.D	1	04/14/15	KD	04/13/15	OP42653	MSR1600
MC37900-18	R43438.D	1	04/14/15	KD	04/13/15	OP42653	MSR1600

The QC reported here applies to the following samples: Method: SW846 8270D

MC37947-1, MC37947-2, MC37947-3, MC37947-4

CAS No.	Compound	MC37900-18 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
110-86-1	Pyridine	ND		50	27.8	56	50	26.3	53	6	15-71/20

CAS No.	Surrogate Recoveries	MS	MSD	MC37900-18	Limits
367-12-4	2-Fluorophenol	56%	55%	51%	10-79%
4165-62-2	Phenol-d5	40%	40%	36%	10-72%
118-79-6	2,4,6-Tribromophenol	103%	103%	96%	35-138%
4165-60-0	Nitrobenzene-d5	88%	90%	84%	30-116%
321-60-8	2-Fluorobiphenyl	72%	66%	57%	35-107%
1718-51-0	Terphenyl-d14	101%	105%	99%	43-135%

7.3.1

7

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42687-MS	R43500.D	1	04/16/15	KD	04/15/15	OP42687	MSR1602
OP42687-MSD	R43501.D	1	04/16/15	KD	04/15/15	OP42687	MSR1602
MC38000-4	R43502.D	1	04/16/15	KD	04/15/15	OP42687	MSR1602

The QC reported here applies to the following samples: Method: SW846 8270D

MC37947-1, MC37947-2, MC37947-3, MC37947-4

7.3.2

7

CAS No.	Compound	MC38000-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		50	19.6	39	50	18.8	38	4	10-76/20
95-57-8	2-Chlorophenol	ND		50	41.9	84	50	34.3	69	20	37-112/20
59-50-7	4-Chloro-3-methyl phenol	ND		50	44.5	89	50	43.8	88	2	43-115/20
120-83-2	2,4-Dichlorophenol	ND		50	47.4	95	50	44.2	88	7	47-119/20
105-67-9	2,4-Dimethylphenol	ND		50	43.4	87	50	38.7	77	11	15-118/20
51-28-5	2,4-Dinitrophenol	ND		50	35.2	70	50	35.8	72	2	10-165/20
534-52-1	4,6-Dinitro-o-cresol	ND		50	45.1	90	50	46.0	92	2	13-165/20
95-48-7	2-Methylphenol	ND		50	40.1	80	50	33.4	67	18	30-99/20
	3&4-Methylphenol	ND		100	77.0	77	100	69.0	69	11	32-89/20
88-75-5	2-Nitrophenol	ND		50	45.5	91	50	40.7	81	11	44-120/20
100-02-7	4-Nitrophenol	ND		50	17.8	36	50	18.3	37	3	10-93/20
87-86-5	Pentachlorophenol	ND		50	45.1	90	50	44.7	89	1	33-131/20
108-95-2	Phenol	ND		50	21.4	43	50	16.9	34	23* [a]	15-53/20
95-95-4	2,4,5-Trichlorophenol	ND		50	50.1	100	50	50.1	100	0	45-126/20
88-06-2	2,4,6-Trichlorophenol	ND		50	46.8	94	50	44.8	90	4	45-124/20
62-53-3	Aniline	ND		50	19.6	39	50	18.1	36	8	18-91/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	50.3	101	50	51.9	104	3	57-131/20
85-68-7	Butyl benzyl phthalate	ND		50	45.6	91	50	47.4	95	4	58-135/20
100-51-6	Benzyl Alcohol	ND		50	22.8	46	50	18.1	36	23* [a]	10-109/20
91-58-7	2-Chloronaphthalene	ND		50	48.0	96	50	46.4	93	3	51-123/20
106-47-8	4-Chloroaniline	ND		50	31.2	62	50	34.4	69	10	39-109/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	44.8	90	50	41.8	84	7	36-120/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	41.9	84	50	35.5	71	17	30-124/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	46.9	94	50	40.7	81	14	25-171/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	49.8	100	50	49.8	100	0	51-122/20
122-66-7	1,2-Diphenylhydrazine	ND		50	47.3	95	50	48.1	96	2	47-130/20
121-14-2	2,4-Dinitrotoluene	ND		50	47.2	94	50	47.6	95	1	57-131/20
606-20-2	2,6-Dinitrotoluene	ND		50	47.6	95	50	47.5	95	0	52-135/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	37.4	75	50	47.4	95	24* [a]	25-157/20
132-64-9	Dibenzofuran	ND		50	47.1	94	50	46.6	93	1	54-110/20
84-74-2	Di-n-butyl phthalate	ND		50	46.9	94	50	48.5	97	3	60-122/20
117-84-0	Di-n-octyl phthalate	ND		50	45.7	91	50	46.8	94	2	54-142/20
84-66-2	Diethyl phthalate	ND		50	47.1	94	50	48.0	96	2	40-132/20
131-11-3	Dimethyl phthalate	ND		50	47.6	95	50	48.4	97	2	13-149/20
117-81-7	bis(2-Ethylhexyl)phthalate	0.37	JB	50	47.5	94	50	51.9	103	9	59-139/20
118-74-1	Hexachlorobenzene	ND		50	51.5	103	50	53.4	107	4	56-135/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL.

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42687-MS	R43500.D	1	04/16/15	KD	04/15/15	OP42687	MSR1602
OP42687-MSD	R43501.D	1	04/16/15	KD	04/15/15	OP42687	MSR1602
MC38000-4	R43502.D	1	04/16/15	KD	04/15/15	OP42687	MSR1602

The QC reported here applies to the following samples: Method: SW846 8270D

MC37947-1, MC37947-2, MC37947-3, MC37947-4

CAS No.	Compound	MC38000-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		50	9.3	19	50	8.4	17	10	10-73/20
67-72-1	Hexachloroethane	ND		50	32.8	66	50	24.9	50	27* [a]	13-103/20
78-59-1	Isophorone	ND		50	39.2	78	50	37.7	75	4	41-110/20
88-74-4	2-Nitroaniline	ND		50	47.3	95	50	47.3	95	0	57-126/20
99-09-2	3-Nitroaniline	ND		50	39.6	79	50	40.7	81	3	53-118/20
100-01-6	4-Nitroaniline	ND		50	43.1	86	50	41.5	83	4	50-119/20
98-95-3	Nitrobenzene	ND		50	43.8	88	50	38.3	77	13	35-127/20
62-75-9	n-Nitrosodimethylamine	ND		50	33.1	66	50	25.9	52	24* [a]	11-82/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	43.1	86	50	39.9	80	8	39-129/20
86-30-6	N-Nitrosodiphenylamine	ND		50	43.3	87	50	44.8	90	3	55-112/20

CAS No.	Surrogate Recoveries	MS	MSD	MC38000-4	Limits
367-12-4	2-Fluorophenol	56%	45%	53%	10-79%
4165-62-2	Phenol-d5	40%	35%	37%	10-72%
118-79-6	2,4,6-Tribromophenol	100%	101%	98%	35-138%
4165-60-0	Nitrobenzene-d5	87%	77%	84%	30-116%
321-60-8	2-Fluorobiphenyl	71%	68%	68%	35-107%
1718-51-0	Terphenyl-d14	99%	102%	98%	43-135%

(a) High RPD due to possible matrix interference and/or sample non-homogeneity.

* = Outside of Control Limits.

7.3.2

7

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42654-MS	I95132.D	1	04/14/15	MR	04/13/15	OP42654	MSI3558
OP42654-MSD	I95133.D	1	04/14/15	MR	04/13/15	OP42654	MSI3558
MC37900-19	I95134.D	1	04/14/15	MR	04/13/15	OP42654	MSI3558

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC37947-1, MC37947-2, MC37947-3, MC37947-4

CAS No.	Compound	MC37900-19 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	37.1	74	50	36.7	73	1	36-124/20
208-96-8	Acenaphthylene	ND		50	35.3	71	50	35.1	70	1	25-116/20
120-12-7	Anthracene	ND		50	41.3	83	50	41.5	83	0	42-122/20
56-55-3	Benzo(a)anthracene	ND		50	49.5	99	50	49.8	100	1	45-145/20
50-32-8	Benzo(a)pyrene	0.023	J	50	46.8	94	50	46.8	94	0	40-136/20
205-99-2	Benzo(b)fluoranthene	0.12		50	47.7	95	50	47.5	95	0	41-148/20
191-24-2	Benzo(g,h,i)perylene	0.033	J	50	45.6	91	50	46.2	92	1	48-140/20
207-08-9	Benzo(k)fluoranthene	0.028	J	50	40.8	82	50	41.1	82	1	45-131/20
218-01-9	Chrysene	0.028	J	50	45.2	90	50	45.8	92	1	41-135/20
53-70-3	Dibenzo(a,h)anthracene	0.025	J	50	45.3	91	50	45.6	91	1	49-144/20
206-44-0	Fluoranthene	0.018	J	50	45.8	92	50	46.0	92	0	38-136/20
86-73-7	Fluorene	ND		50	40.5	81	50	40.1	80	1	43-127/20
193-39-5	Indeno(1,2,3-cd)pyrene	0.031	J	50	46.3	93	50	46.6	93	1	45-142/20
90-12-0	1-Methylnaphthalene	ND		50	24.6	49	50	24.5	49	0	29-116/20
91-57-6	2-Methylnaphthalene	ND		50	24.1	48	50	24.3	49	1	27-117/20
85-01-8	Phenanthrene	ND		50	41.0	82	50	40.9	82	0	41-126/20
129-00-0	Pyrene	0.017	J	50	46.9	94	50	47.3	95	1	41-131/20

CAS No.	Surrogate Recoveries	MS	MSD	MC37900-19 Limits	
4165-60-0	Nitrobenzene-d5	91%	91%	85%	26-121%
321-60-8	2-Fluorobiphenyl	64%	61%	51%	28-107%
1718-51-0	Terphenyl-d14	113%	115%	111%	29-129%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3558-CC3483	Injection Date:	04/14/15
Lab File ID:	I95126.D	Injection Time:	15:37
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	239510	3.56	506659	4.60	293053	6.12	511838	7.43	369146	10.20	919598	11.63
Upper Limit [a]	479020	4.06	1013318	5.10	586106	6.62	1023676	7.93	738292	10.70	1839196	12.13
Lower Limit [b]	119755	3.06	253330	4.10	146527	5.62	255919	6.93	184573	9.70	459799	11.13
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP42645-MSD	287750	3.57	616921	4.61	343862	6.13	618143	7.44	429701	10.21	1057192	11.63
MC37900-13	273286	3.56	580483	4.60	331948	6.12	582960	7.44	416522	10.20	1054297	11.63
ZZZZZZ	295799	3.56	626280	4.60	354829	6.12	629722	7.44	449644	10.20	1119924	11.63
OP42654-MB	284548	3.56	596474	4.60	337243	6.12	589547	7.43	419927	10.20	1070962	11.63
OP42654-BS	293950	3.57	616635	4.61	342601	6.12	606892	7.44	431718	10.21	1061235	11.63
OP42654-MS	272075	3.57	585223	4.61	326544	6.12	589893	7.44	422461	10.21	1033502	11.63
OP42654-MSD	290119	3.57	620468	4.61	340465	6.13	607893	7.44	425792	10.21	1047585	11.63
MC37900-19	250202	3.56	529468	4.60	303849	6.12	529974	7.43	374552	10.20	925305	11.63
MC37947-1	242195	3.56	512043	4.60	288093	6.12	502949	7.43	351838	10.20	875191	11.63
MC37947-2	277294	3.57	588571	4.60	330281	6.12	562581	7.43	404075	10.20	994736	11.63
MC37947-3	270164	3.56	572157	4.60	327624	6.12	578036	7.44	403742	10.20	1005238	11.63
MC37947-4	285754	3.56	598380	4.60	338955	6.12	580058	7.44	402444	10.20	1001336	11.63
ZZZZZZ	268909	3.57	561147	4.61	323087	6.12	558183	7.44	396521	10.20	1001954	11.63
ZZZZZZ	258963	3.56	545363	4.60	306776	6.12	535620	7.44	392765	10.20	980374	11.63
ZZZZZZ	274369	3.57	587800	4.60	334075	6.12	588909	7.44	426862	10.20	1066157	11.63
ZZZZZZ	237324	3.56	496360	4.60	283557	6.12	492944	7.43	347992	10.20	869871	11.63
ZZZZZZ	261233	3.56	554137	4.60	317251	6.12	556625	7.43	396767	10.20	1022427	11.63
ZZZZZZ	271511	3.56	572785	4.60	327613	6.12	576649	7.43	412166	10.20	1036518	11.63
ZZZZZZ	248405	3.57	527919	4.60	298294	6.12	523996	7.43	374757	10.20	944596	11.63
ZZZZZZ	269563	3.56	571972	4.60	329012	6.12	571282	7.43	408229	10.20	1037708	11.63
ZZZZZZ	260348	3.56	551573	4.60	310132	6.12	545351	7.43	378742	10.20	947794	11.63
ZZZZZZ	264056	3.56	562258	4.60	322169	6.12	575461	7.43	439808	10.20	1130849	11.63
ZZZZZZ	289795	3.56	606578	4.60	345798	6.12	595437	7.43	417217	10.20	1053845	11.63
ZZZZZZ	271484	3.56	570460	4.60	320275	6.12	560000	7.43	391192	10.20	976340	11.63
ZZZZZZ	281581	3.56	590367	4.60	333501	6.12	581017	7.44	407725	10.20	1021821	11.63
ZZZZZZ	272363	3.56	573764	4.60	323162	6.12	551601	7.43	392883	10.20	984973	11.63
ZZZZZZ	285851	3.56	601195	4.60	340336	6.12	586829	7.44	413263	10.20	1034036	11.63
ZZZZZZ	270402	3.56	565305	4.60	321564	6.12	556330	7.43	390241	10.20	976781	11.63

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

7.4.1

Semivolatile Internal Standard Area Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3558-CC3483	Injection Date:	04/14/15
Lab File ID:	I95126.D	Injection Time:	15:37
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.4.1

7

Semivolatile Internal Standard Area Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSR1600-CC1577	Injection Date:	04/14/15
Lab File ID:	R43433.D	Injection Time:	14:48
Instrument ID:	GCMSR	Method:	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	380539	5.03	1471846	6.14	907994	7.68	1561397	8.96	1638652	11.48	1451417	13.15
Upper Limit [a]	761078	5.53	2943692	6.64	1815988	8.18	3122794	9.46	3277304	11.98	2902834	13.65
Lower Limit [b]	190270	4.53	735923	5.64	453997	7.18	780699	8.46	819326	10.98	725709	12.65
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP42653-MB	442346	5.03	1682269	6.13	1041649	7.68	1774910	8.96	1852425	11.47	1749369	13.15
OP42653-BS	417854	5.03	1604987	6.14	986404	7.68	1658106	8.96	1733586	11.47	1633352	13.15
OP42653-MS	385370	5.03	1483746	6.14	903857	7.68	1537682	8.96	1631565	11.48	1532299	13.15
OP42653-MSD	427628	5.03	1657409	6.13	1016014	7.68	1730611	8.96	1763087	11.48	1640706	13.15
MC37900-18	371279	5.03	1424765	6.13	878352	7.67	1481195	8.96	1492377	11.47	1413887	13.14
MC37947-1	352564	5.03	1355527	6.13	836118	7.67	1424355	8.96	1463527	11.47	1326106	13.14
MC37947-2	372499	5.03	1414589	6.13	869354	7.68	1488860	8.96	1529974	11.47	1425994	13.14
MC37947-3	356445	5.03	1353222	6.13	831960	7.67	1427682	8.96	1472753	11.47	1380104	13.14
MC37947-4	392622	5.03	1513072	6.13	937535	7.68	1607644	8.96	1639568	11.47	1477517	13.14

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.4.2

7

Semivolatile Internal Standard Area Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSR1602-CC1577	Injection Date:	04/16/15
Lab File ID:	R43485.D	Injection Time:	12:21
Instrument ID:	GCMSR	Method:	SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	675649	5.00	2621907	6.10	1596788	7.64	2670659	8.92	2625028	11.43	2323741	13.10
Upper Limit [a]	1351298	5.50	5243814	6.60	3193576	8.14	5341318	9.42	5250056	11.93	4647482	13.60
Lower Limit [b]	337825	4.50	1310954	5.60	798394	7.14	1335330	8.42	1312514	10.93	1161871	12.60
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP42686-MB	736108	5.00	2837656	6.10	1739045	7.64	2882105	8.92	2796579	11.42	2470418	13.09
OP42686-BS	705411	5.00	2711700	6.10	1633904	7.64	2661219	8.92	2537280	11.43	2280087	13.09
ZZZZZZ	725702	5.00	2786744	6.10	1673535	7.63	2708464	8.92	2554660	11.42	2257702	13.09
ZZZZZZ	796029	5.00	2986626	6.10	1798752	7.64	2959243	8.92	2836245	11.42	2503286	13.09
ZZZZZZ	831442	5.00	3109859	6.10	1876733	7.63	3038608	8.92	2892709	11.42	2527446	13.09
ZZZZZZ	815687	5.00	3032510	6.10	1801933	7.63	2914943	8.92	2730760	11.42	2372900	13.09
ZZZZZZ	759334	5.00	2807119	6.10	1687928	7.63	2736699	8.92	2578282	11.42	2246964	13.09
ZZZZZZ	698078	5.00	2623656	6.10	1584256	7.63	2605715	8.92	2469965	11.42	2131826	13.09
ZZZZZZ	745845	5.00	2796441	6.10	1670661	7.63	2715684	8.92	2572287	11.42	2226009	13.09
ZZZZZZ	864148	5.00	3222374	6.10	1931544	7.63	3100267	8.92	2953644	11.42	2559372	13.09
ZZZZZZ	677335	5.00	2514925	6.10	1536508	7.63	2477949	8.92	2343707	11.42	2178120	13.09
ZZZZZZ	661214	5.00	2422610	6.10	1495164	7.63	2450854	8.92	2316425	11.42	2215008	13.09
OP42687-MB	670641	5.00	2499809	6.10	1509625	7.64	2449757	8.92	2342718	11.42	2198281	13.09
OP42687-BS	677248	5.00	2571429	6.10	1545010	7.64	2494298	8.92	2436294	11.43	2221219	13.09
OP42687-MS	601113	5.00	2287809	6.10	1390883	7.64	2281875	8.92	2235920	11.43	2064840	13.09
OP42687-MSD	648190	5.00	2400496	6.10	1425592	7.64	2312409	8.92	2224171	11.43	2069124	13.09
MC38000-4	637510	5.00	2414351	6.10	1461095	7.64	2369928	8.92	2306022	11.42	2112109	13.09
MC37947-1	653191	5.00	2443749	6.10	1510281	7.64	2469775	8.92	2446805	11.42	2258270	13.09
MC37947-2	639155	5.00	2390926	6.10	1485281	7.63	2435936	8.92	2448961	11.42	2233141	13.09
MC37947-3	685710	5.00	2589937	6.10	1584658	7.63	2574710	8.92	2490832	11.42	2328157	13.09
MC37947-4	617009	5.00	2369340	6.10	1468494	7.63	2445844	8.92	2399612	11.42	2184036	13.09

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.4.3

Semivolatile Surrogate Recovery Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8270D Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC37947-1	R43439.D	50	36	95	85	55	102
MC37947-1	R43503.D	44	29	91	79	67	97
MC37947-2	R43440.D	47	34	90	79	49	92
MC37947-2	R43504.D	37	30	73	78	66	92
MC37947-3	R43505.D	42	29	86	72	61	88
MC37947-3	R43441.D	46	35	91	75	52	91
MC37947-4	R43506.D	49	34	95	83	76	97
MC37947-4	R43442.D	51	37	94	80	47	96
OP42653-BS	R43435.D	42	31	76	69	54	78
OP42653-MB	R43434.D	41	30	81	71	55	80
OP42653-MS	R43436.D	56	40	103	88	72	101
OP42653-MSD	R43437.D	55	40	103	90	66	105
OP42687-BS	R43499.D	52	37	98	83	66	97
OP42687-MB	R43498.D	50	33	93	80	77	96
OP42687-MS	R43500.D	56	40	100	87	71	99
OP42687-MSD	R43501.D	45	35	101	77	68	102

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	10-79%
S2 = Phenol-d5	10-72%
S3 = 2,4,6-Tribromophenol	35-138%
S4 = Nitrobenzene-d5	30-116%
S5 = 2-Fluorobiphenyl	35-107%
S6 = Terphenyl-d14	43-135%

7.5.1

7

Semivolatile Surrogate Recovery Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8270D BY SIM Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC37947-1	I95135.D	85	50	113
MC37947-2	I95136.D	78	45	104
MC37947-3	I95137.D	76	48	103
MC37947-4	I95138.D	82	44	109
OP42654-BS	I95131.D	73	51	85
OP42654-MB	I95130.D	71	50	90
OP42654-MS	I95132.D	91	64	113
OP42654-MSD	I95133.D	91	61	115

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	26-121%
S2 = 2-Fluorobiphenyl	28-107%
S3 = Terphenyl-d14	29-129%

7.5.2

New England ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries

Method Blank Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42703-MB	BB62801.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420

The QC reported here applies to the following samples: Method: SW846 8011

MC37947-1, MC37947-2, MC37947-3, MC37947-4, MC37947-6

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.0061	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.0061	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	Bromofluorobenzene (S)	105%	60-140%
460-00-4	Bromofluorobenzene (S)	105%	60-140%

8.1.1

Blank Spike Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42703-BS	BB62802.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420

The QC reported here applies to the following samples: Method: SW846 8011

MC37947-1, MC37947-2, MC37947-3, MC37947-4, MC37947-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.070	99	45-149
106-93-4	1,2-Dibromoethane	0.071	0.074	104	51-149

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	101%	60-140%
460-00-4	Bromofluorobenzene (S)	100%	60-140%

8.2.1

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42703-MS	BB62803.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420
OP42703-MSD	BB62804.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420
MC37883-1	BB62805.D	1	04/17/15	NK	04/16/15	OP42703	GBB3420

The QC reported here applies to the following samples: Method: SW846 8011

MC37947-1, MC37947-2, MC37947-3, MC37947-4, MC37947-6

CAS No.	Compound	MC37883-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	ND		0.068	0.089	131	0.0688	0.059	86	41* [a]	31-169/30
106-93-4	1,2-Dibromoethane	ND		0.068	0.099	146	0.0688	0.062	90	46* [a]	34-175/30

CAS No.	Surrogate Recoveries	MS	MSD	MC37883-1	Limits
460-00-4	Bromofluorobenzene (S)	131%	97%	99%	60-140%
460-00-4	Bromofluorobenzene (S)	140%	103%	107%	60-140%

(a) High RPD due to possible matrix interference and/or sample non-homogeneity.

* = Outside of Control Limits.

8.3.1

Volatile Surrogate Recovery Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8011 Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
MC37947-1	BB62818.D	104	110
MC37947-2	BB62819.D	117	122
MC37947-3	BB62820.D	104	108
MC37947-4	BB62821.D	93	99
MC37947-6	BB62823.D	112	118
OP42703-BS	BB62802.D	101	100
OP42703-MB	BB62801.D	105	105
OP42703-MS	BB62803.D	131	140
OP42703-MSD	BB62804.D	97	103

Surrogate Compounds	Recovery Limits
S1 = Bromofluorobenzene (S)	60-140%

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

8.4.1

GC Surrogate Retention Time Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBB3420-ICC3420	Injection Date:	04/17/15
Lab File ID:	BB62797.D	Injection Time:	13:57
Instrument ID:	GCBB	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	6.88	7.25

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP42703-MB	BB62801.D	04/17/15	15:56	6.88	7.25
OP42703-BS	BB62802.D	04/17/15	16:26	6.88	7.25
OP42703-MS	BB62803.D	04/17/15	16:56	6.88	7.25
OP42703-MSD	BB62804.D	04/17/15	17:25	6.88	7.25
MC37883-1	BB62805.D	04/17/15	17:53	6.88	7.26
ZZZZZZ	BB62806.D	04/17/15	18:23	6.89	7.26
ZZZZZZ	BB62807.D	04/17/15	18:52	6.89	7.26
ZZZZZZ	BB62808.D	04/17/15	19:22	6.89	7.26
ZZZZZZ	BB62809.D	04/17/15	19:52	6.88	7.25
ZZZZZZ	BB62810.D	04/17/15	20:21	6.88	7.25

Surrogate Compounds

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.5.1

GC Surrogate Retention Time Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBB3420-CC3420	Injection Date:	04/17/15
Lab File ID:	BB62811.D	Injection Time:	20:51
Instrument ID:	GCBB	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	6.88	7.26

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	BB62812.D	04/17/15	21:20	6.89	7.25
ZZZZZZ	BB62813.D	04/17/15	21:51	6.89	7.25
ZZZZZZ	BB62814.D	04/17/15	22:22	6.88	7.25
ZZZZZZ	BB62815.D	04/17/15	22:51	6.88	7.25
ZZZZZZ	BB62816.D	04/17/15	23:20	6.89	7.26
ZZZZZZ	BB62817.D	04/17/15	23:51	6.88	7.25
MC37947-1	BB62818.D	04/18/15	00:21	6.88	7.25
MC37947-2	BB62819.D	04/18/15	00:50	6.88	7.25
MC37947-3	BB62820.D	04/18/15	01:19	6.88	7.25
MC37947-4	BB62821.D	04/18/15	01:48	6.88	7.25

Surrogate Compounds

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.5.2

GC Surrogate Retention Time Summary

Job Number: MC37947
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBB3420-CC3420	Injection Date:	04/18/15
Lab File ID:	BB62822.D	Injection Time:	02:18
Instrument ID:	GCBB	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	6.89	7.25

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
MC37947-6	BB62823.D	04/18/15	02:48	6.88	7.25
OP42706-MB	BB62824.D	04/18/15	03:17	6.88	7.25
OP42706-BS	BB62825.D	04/18/15	03:46	6.88	7.25
OP42706-MS	BB62826.D	04/18/15	04:16	6.88	7.25
OP42706-MSD	BB62827.D	04/18/15	04:45	6.88	7.25
MC37976-3	BB62828.D	04/18/15	05:14	6.88	7.25
ZZZZZZ	BB62829.D	04/18/15	05:43	6.88	7.25
ZZZZZZ	BB62830.D	04/18/15	06:11	6.88	7.25
ZZZZZZ	BB62831.D	04/18/15	06:39	6.88	7.25
ZZZZZZ	BB62832.D	04/18/15	07:07	6.88	7.25

Surrogate Compounds

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.5.3

Roxana Groundwater Quarterly – 2nd Quarter 2015 Data Review

Laboratory SDG: MC37976

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 4/28/2015

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2014

Sample Identification	Sample Identification
ROST4PZC-ROX-041315	ROST3MW-ROX-041315
MW5-ROX-041315	MW2-ROX-041315
TB-ROX-041315-HCL	TB-ROX-041315-ST

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 SVOCs and PAHs were detected in the method blank. VOC and SVOC MS/MSD recoveries and SVOC MS/MSD RPDs were outside evaluation criteria in sample MW5-ROX-041315. Sample MW2-ROX-041315 was diluted due to high levels of VOCs. These issues are addressed further in the appropriate sections below. Additionally, the initial and continuing calibration verification for acrolein and vinyl acetate exceeded 30 percent difference (%D), and 40%D, respectively. The initial calibration verification for hexachlorocyclopentadiene also exceeded 30%D, and the continuing calibration verification for 1,2-dibromoethane exceeded 15%D.

The cooler receipt form indicated that one of one cooler was received by the laboratory at a temperature of 1.4°C, which is outside the 4ºC ± 2ºC criteria. Samples were received in good condition; therefore, no qualification of data was required.

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
OP42704-MB	SVOCs	Di-n-butyl phthalate	0.31 µg/L
OP42705-MB	PAHs	1-Methylnaphthalene	0.037 µg/L
OP42705-MB	PAHs	2-Methylnaphthalene	0.041 µg/L

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification. Please see Section 12.0 of this review for additional qualifications regarding samples associated with 1-methylnaphthalene and 2-methylnaphthalene in method blank OP42705.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW2-ROX-041315	PAHs	Di-n-butyl phthalate	-	**U**

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

Yes

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

Yes, sample MW5-ROX-041315 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
MW5-ROX-041315	VOCs	Vinyl acetate	**204/190**	7	10-169/30
MW5-ROX-041315	SVOCs	Aniline	51/41	**22**	18-91/20
MW5-ROX-041315	SVOCs	3,3'-Dichlorobenzidine	**23/15**	**42**	25-157/20
MW5-ROX-041315	SVOCs	Pyridine	25/16	**43**	15-71/20

LCS/LCSD recoveries were within evaluation criteria; no further qualification of data was required.

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, professional judgment was used to qualify as estimated, however not reject, data that was associated with 1-methylnaphthalene and 2-methylnaphthalene in method blank OP42705, due to comparable historical detections.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW5-ROX-041315	PAHs	1-Methylnaphthalene	-	**J**
MW5-ROX-041315	PAHs	2-Methylnaphthalene	-	**J**

New England ACCUTEST LABORATORIES

04/28/15

Technical Report for

Shell Oil

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana,

Accutest Job Number: MC37976

Sampling Date: 04/13/15

Report to:

AECOM, INC.

Melissa.mansker@urs.com

ATTN: Melissa Mansker

Total number of pages in report: **86**

Reviewed on 4/28/2015

Reza Tand
Lab Director

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories. Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

Sections: 1 2 3 4 5 6 7 8

Table of Contents

Section 1: Sample Summary 3
Section 2: Case Narrative/Conformance Summary 4
Section 3: Summary of Hits 6
Section 4: Sample Results 9
4.1: MC37976-1: ROST4PZC-ROX-041315 10
4.2: MC37976-2: ROST3MW-ROX-041315 17
4.3: MC37976-3: MW5-ROX-041315 24
4.4: MC37976-4: MW2-ROX-041315 31
4.5: MC37976-5: TB-ROX-041315-HCL 38
4.6: MC37976-6: TB-ROX-041315-ST 41
Section 5: Misc. Forms 42
5.1: Chain of Custody 43
5.2: Sample Tracking Chronicle 45
5.3: Internal Chain of Custody 47
Section 6: GC/MS Volatiles - QC Data Summaries 49
6.1: Method Blank Summary 50
6.2: Blank Spike Summary 54
6.3: Blank Spike/Blank Spike Duplicate Summary 55
6.4: Matrix Spike/Matrix Spike Duplicate Summary 58
6.5: Internal Standard Area Summaries 62
6.6: Surrogate Recovery Summaries 64
Section 7: GC/MS Semi-volatiles - QC Data Summaries 65
7.1: Method Blank Summary 66
7.2: Blank Spike Summary 69
7.3: Matrix Spike/Matrix Spike Duplicate Summary 72
7.4: Internal Standard Area Summaries 75
7.5: Surrogate Recovery Summaries 79
Section 8: GC Volatiles - QC Data Summaries 81
8.1: Method Blank Summary 82
8.2: Blank Spike Summary 83
8.3: Matrix Spike/Matrix Spike Duplicate Summary 84
8.4: Surrogate Recovery Summaries 85
8.5: GC Surrogate Retention Time Summaries 86

Sample Summary

Shell Oil

Job No: MC37976

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
MC37976-1	04/13/15	10:20	DCES	04/14/15	AQ	Ground Water	ROST4PZC-ROX-041315
MC37976-2	04/13/15	11:35	DCES	04/14/15	AQ	Ground Water	ROST3MW-ROX-041315
MC37976-3	04/13/15	13:35	DCES	04/14/15	AQ	Ground Water	MW5-ROX-041315
MC37976-3D	04/13/15	13:35	DCES	04/14/15	AQ	Water Dup/MSD	MW5-ROX-041315
MC37976-3S	04/13/15	13:35	DCES	04/14/15	AQ	Water Matrix Spike	MW5-ROX-041315
MC37976-4	04/13/15	14:45	DCES	04/14/15	AQ	Ground Water	MW2-ROX-041315
MC37976-5	04/13/15	00:00	DCES	04/14/15	AQ	Trip Blank Water	TB-ROX-041315-HCL
MC37976-6	04/13/15	00:00	DCES	04/14/15	AQ	Trip Blank Water	TB-ROX-041315-ST

ACCUTEST LABORATORIES

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	MC37976
Site:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central	**Report Date**	4/28/2015 8:57:24 AM

4 Sample(s) and 2 Trip Blank(s) were collected on 04/13/2015 and were received at Accutest on 04/14/2015 properly preserved, at 1.4 Deg. C and intact. These Samples received an Accutest job number of MC37976. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report. 1-Chlorohexane, Benzenethiol, Dibenz(a,h)acridine, Indene, and Quinoline were searched in the library search and reported only if detections were found.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix AQ **Batch ID:** MSN3561

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC37976-3MS, MC37976-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Initial calibration verification standard MSN3519-ICV3519 for acrolein, vinyl acetate exceed 30% Difference (response bias high). Associated sample is non-detect for this compound.
- MC37976-3MS/MSD Recovery(s) for Vinyl Acetate are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Continuing calibration check standard MSN3561-CC3519 for acrolein, vinyl acetate exceed 40% Difference (response bias high). Associated sample is non-detect for this compound.

Matrix AQ **Batch ID:** MSN3563

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D69954-1MS, D69954-1MSD were used as the QC samples indicated.

Extractables by GCMS By Method SW846 8270D

Matrix AQ **Batch ID:** OP42704

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC37976-3MS, MC37976-3MSD were used as the QC samples indicated.
- Sample(s) MC37976-4 have compound(s) reported with a "B" qualifier, indicating analyte is found in the associated method blank.
- OP42704-MS/MSD Recovery(s) for 3,3'-Dichlorobenzidine are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Initial calibration verification standard MSW902-ICV902, file W21009 for Hexachlorocyclopentadiene exceed 30% Difference.
- RPD(s) for MSD for 3,3'-Dichlorobenzidine, Aniline, Pyridine are outside control limits for sample OP42704-MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.

Extractables by GCMS By Method SW846 8270D BY SIM

Matrix AQ	Batch ID: OP42705

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC37976-3MS, MC37976-3MSD were used as the QC samples indicated.
- Sample(s) MC37976-1, MC37976-3 have compound(s) reported with a "B" qualifier, indicating analyte is found in the associated method blank.

Volatiles by GC By Method SW846 8011

Matrix AQ	Batch ID: OP42706

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC37976-3MS, MC37976-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Continuing calibration check standard GBB3420-CC3420, file BB62833, signal #1 for 1,2-Dibromoethane exceed 15% Difference. 1,2-Dibromoethane in associated sample is reported from signal #2.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC37976).

Summary of Hits

Job Number: MC37976
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Collected: 04/13/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC37976-1	ROST4PZC-ROX-041315					
Benzene		69.4	0.50	0.27	ug/l	SW846 8260C
Ethylbenzene		80.6	1.0	0.24	ug/l	SW846 8260C
Isopropylbenzene		1.3 J	5.0	0.27	ug/l	SW846 8260C
Naphthalene		14.6	5.0	2.0	ug/l	SW846 8260C
n-Propylbenzene		1.3 J	5.0	0.29	ug/l	SW846 8260C
Toluene		31.3	1.0	0.29	ug/l	SW846 8260C
1,2,4-Trimethylbenzene		5.2	5.0	0.29	ug/l	SW846 8260C
1,3,5-Trimethylbenzene		0.75 J	5.0	0.20	ug/l	SW846 8260C
m,p-Xylene		148	1.0	0.47	ug/l	SW846 8260C
o-Xylene		20.3	1.0	0.22	ug/l	SW846 8260C
Xylene (total)		168	1.0	0.22	ug/l	SW846 8260C
2,4-Dimethylphenol		1.3 J	10	0.34	ug/l	SW846 8270D
3&4-Methylphenol		1.1 J	10	0.45	ug/l	SW846 8270D
Anthracene		0.018 J	0.10	0.010	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		1.2 J	2.0	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		0.38 JB	2.0	0.011	ug/l	SW846 8270D BY SIM
Phenanthrene		0.075	0.051	0.011	ug/l	SW846 8270D BY SIM
Pyrene		0.022 J	0.10	0.0087	ug/l	SW846 8270D BY SIM
MC37976-2	ROST3MW-ROX-041315					
Acetone		25.1	10	2.0	ug/l	SW846 8260C
Benzene		5.7	0.50	0.27	ug/l	SW846 8260C
Carbon disulfide		0.37 J	5.0	0.19	ug/l	SW846 8260C
Ethylbenzene		8.5	1.0	0.24	ug/l	SW846 8260C
Isopropylbenzene		1.4 J	5.0	0.27	ug/l	SW846 8260C
n-Propylbenzene		1.5 J	5.0	0.29	ug/l	SW846 8260C
Toluene		0.80 J	1.0	0.29	ug/l	SW846 8260C
1,2,4-Trimethylbenzene		5.5	5.0	0.29	ug/l	SW846 8260C
1,3,5-Trimethylbenzene		0.68 J	5.0	0.20	ug/l	SW846 8260C
m,p-Xylene		1.5	1.0	0.47	ug/l	SW846 8260C
o-Xylene		2.9	1.0	0.22	ug/l	SW846 8260C
Xylene (total)		4.4	1.0	0.22	ug/l	SW846 8260C
Acenaphthene		0.028 J	0.10	0.0077	ug/l	SW846 8270D BY SIM
Fluorene		0.030 J	0.10	0.016	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		1.0 J	2.1	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		0.50 J	2.1	0.011	ug/l	SW846 8270D BY SIM
Phenanthrene		0.11	0.052	0.011	ug/l	SW846 8270D BY SIM
Pyrene		0.019 J	0.10	0.0088	ug/l	SW846 8270D BY SIM
MC37976-3	MW5-ROX-041315					
Benzene		39.1	0.50	0.27	ug/l	SW846 8260C

Summary of Hits

Job Number: MC37976
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Collected: 04/13/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
sec-Butylbenzene		1.4 J	5.0	0.50	ug/l	SW846 8260C
tert-Butylbenzene		5.1	5.0	0.57	ug/l	SW846 8260C
Ethylbenzene		0.50 J	1.0	0.24	ug/l	SW846 8260C
Isopropylbenzene		7.6	5.0	0.27	ug/l	SW846 8260C
Methyl Tert Butyl Ether		34.9	1.0	0.35	ug/l	SW846 8260C
n-Propylbenzene		5.6	5.0	0.29	ug/l	SW846 8260C
Toluene		0.57 J	1.0	0.29	ug/l	SW846 8260C
m,p-Xylene		8.8	1.0	0.47	ug/l	SW846 8260C
o-Xylene		0.51 J	1.0	0.22	ug/l	SW846 8260C
Xylene (total)		9.3	1.0	0.22	ug/l	SW846 8260C
Acenaphthene		0.073 J	0.11	0.0079	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		0.099 JB J	2.1	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		0.031 JB J	2.1	0.012	ug/l	SW846 8270D BY SIM
MC37976-4	MW2-ROX-041315					
Benzene		28.3	0.50	0.27	ug/l	SW846 8260C
sec-Butylbenzene		5.2	5.0	0.50	ug/l	SW846 8260C
tert-Butylbenzene		0.84 J	5.0	0.57	ug/l	SW846 8260C
Carbon disulfide		0.28 J	5.0	0.19	ug/l	SW846 8260C
Ethylbenzene		547	50	12	ug/l	SW846 8260C
Isopropylbenzene		61.3	5.0	0.27	ug/l	SW846 8260C
p-Isopropyltoluene		6.4	5.0	0.32	ug/l	SW846 8260C
Methyl Tert Butyl Ether		1.3	1.0	0.35	ug/l	SW846 8260C
Naphthalene		68.0	5.0	2.0	ug/l	SW846 8260C
n-Propylbenzene		80.2	5.0	0.29	ug/l	SW846 8260C
Toluene		10.3	1.0	0.29	ug/l	SW846 8260C
1,2,4-Trimethylbenzene		185	5.0	0.29	ug/l	SW846 8260C
1,3,5-Trimethylbenzene		88.2	5.0	0.20	ug/l	SW846 8260C
m,p-Xylene		549	1.0	0.47	ug/l	SW846 8260C
o-Xylene		49.5	1.0	0.22	ug/l	SW846 8260C
Xylene (total)		598	1.0	0.22	ug/l	SW846 8260C
3&4-Methylphenol		0.66 J	11	0.48	ug/l	SW846 8270D
Butyl benzyl phthalate		1.0 J	5.4	0.26	ug/l	SW846 8270D
Di-n-butyl phthalate		~~0.45 JB~~ U	5.4	0.29	ug/l	SW846 8270D
Acenaphthene		0.041 J	0.11	0.0082	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		12.4	2.2	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		25.3	2.2	0.012	ug/l	SW846 8270D BY SIM
Phenanthrene		0.023 J	0.054	0.012	ug/l	SW846 8270D BY SIM
MC37976-5	TB-ROX-041315-HCL					
No hits reported in this sample.						

Summary of Hits

Job Number: MC37976
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Collected: 04/13/15

Lab Sample ID	Client Sample ID	Result/				
Analyte		Qual	RL	MDL	Units	Method
MC37976-6	TB-ROX-041315-ST					
No hits reported in this sample.						

New England ACCUTEST LABORATORIES

4

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	ROST4PZC-ROX-041315		
Lab Sample ID:	MC37976-1	Date Sampled:	04/13/15
Matrix:	AQ - Ground Water	Date Received:	04/14/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N96744.D	1	04/23/15	JB	n/a	n/a	MSN3561
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	69.4	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST4PZC-ROX-041315		
Lab Sample ID:	MC37976-1	Date Sampled:	04/13/15
Matrix:	AQ - Ground Water	Date Received:	04/14/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	80.6	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	1.3	5.0	0.27	ug/l	J
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	14.6	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	1.3	5.0	0.29	ug/l	J
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	31.3	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	5.2	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	0.75	5.0	0.20	ug/l	J
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	148	1.0	0.47	ug/l	
95-47-6	o-Xylene	20.3	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	168	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST4PZC-ROX-041315		
Lab Sample ID:	MC37976-1	Date Sampled:	04/13/15
Matrix:	AQ - Ground Water	Date Received:	04/14/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		72-133%
2037-26-5	Toluene-D8	103%		85-114%
460-00-4	4-Bromofluorobenzene	96%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST4PZC-ROX-041315		
Lab Sample ID:	MC37976-1	Date Sampled:	04/13/15
Matrix:	AQ - Ground Water	Date Received:	04/14/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21607.D	1	04/23/15	KD	04/16/15	OP42704	MSW924
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.1	0.30	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.52	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.48	ug/l	
105-67-9	2,4-Dimethylphenol	1.3	10	0.34	ug/l	J
51-28-5	2,4-Dinitrophenol	ND	20	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.60	ug/l	
95-48-7	2-Methylphenol	ND	10	0.31	ug/l	
	3&4-Methylphenol	1.1	10	0.45	ug/l	J
88-75-5	2-Nitrophenol	ND	10	0.47	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.35	ug/l	
108-95-2	Phenol	ND	5.1	0.33	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.46	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.46	ug/l	
62-53-3	Aniline	ND	10	0.47	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.1	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.1	0.25	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.33	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.1	0.35	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.1	0.50	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.1	0.43	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.1	0.43	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.1	0.26	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.1	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.38	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.38	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.1	0.54	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.1	0.28	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.1	0.29	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST4PZC-ROX-041315		
Lab Sample ID:	MC37976-1	Date Sampled:	04/13/15
Matrix:	AQ - Ground Water	Date Received:	04/14/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.1	0.27	ug/l	
131-11-3	Dimethyl phthalate	ND	5.1	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.32	ug/l	
118-74-1	Hexachlorobenzene	ND	5.1	0.25	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.1	0.29	ug/l	
78-59-1	Isophorone	ND	5.1	0.48	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.36	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.41	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.52	ug/l	
98-95-3	Nitrobenzene	ND	5.1	0.49	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.1	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.1	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	0.26	ug/l	
110-86-1	Pyridine	ND	10	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	44%		10-79%
4165-62-2	Phenol-d5	31%		10-72%
118-79-6	2,4,6-Tribromophenol	105%		35-138%
4165-60-0	Nitrobenzene-d5	77%		30-116%
321-60-8	2-Fluorobiphenyl	67%		35-107%
1718-51-0	Terphenyl-d14	102%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST4PZC-ROX-041315		
Lab Sample ID:	MC37976-1	Date Sampled:	04/13/15
Matrix:	AQ - Ground Water	Date Received:	04/14/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95279.D	1	04/23/15	MR	04/16/15	OP42705	MSI3564
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.0077	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.0086	ug/l	
120-12-7	Anthracene	0.018	0.10	0.010	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.051	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.051	0.019	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.013	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.0076	ug/l	
86-73-7	Fluorene	ND	0.10	0.015	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.021	ug/l	
90-12-0	1-Methylnaphthalene	1.2	2.0	0.013	ug/l	J
91-57-6	2-Methylnaphthalene	0.38	2.0	0.011	ug/l	JB
85-01-8	Phenanthrene	0.075	0.051	0.011	ug/l	
129-00-0	Pyrene	0.022	0.10	0.0087	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	81%		26-121%
321-60-8	2-Fluorobiphenyl	63%		28-107%
1718-51-0	Terphenyl-d14	104%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST4PZC-ROX-041315		
Lab Sample ID:	MC37976-1	Date Sampled:	04/13/15
Matrix:	AQ - Ground Water	Date Received:	04/14/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62829.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	36.9 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0058	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0058	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	92%		60-140%
460-00-4	Bromofluorobenzene (S)	97%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST3MW-ROX-041315		
Lab Sample ID:	MC37976-2	Date Sampled:	04/13/15
Matrix:	AQ - Ground Water	Date Received:	04/14/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N96740.D	1	04/23/15	JB	n/a	n/a	MSN3561
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	25.1	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	5.7	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	0.37	5.0	0.19	ug/l	J
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST3MW-ROX-041315		
Lab Sample ID:	MC37976-2	Date Sampled:	04/13/15
Matrix:	AQ - Ground Water	Date Received:	04/14/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	8.5	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	1.4	5.0	0.27	ug/l	J
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	1.5	5.0	0.29	ug/l	J
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	0.80	1.0	0.29	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	5.5	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	0.68	5.0	0.20	ug/l	J
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	1.5	1.0	0.47	ug/l	
95-47-6	o-Xylene	2.9	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	4.4	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST3MW-ROX-041315		
Lab Sample ID:	MC37976-2	Date Sampled:	04/13/15
Matrix:	AQ - Ground Water	Date Received:	04/14/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		72-133%
2037-26-5	Toluene-D8	102%		85-114%
460-00-4	4-Bromofluorobenzene	100%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST3MW-ROX-041315		
Lab Sample ID:	MC37976-2	Date Sampled:	04/13/15
Matrix:	AQ - Ground Water	Date Received:	04/14/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21608.D	1	04/23/15	KD	04/16/15	OP42704	MSW924
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.2	0.30	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.52	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.48	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.35	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.61	ug/l	
95-48-7	2-Methylphenol	ND	10	0.31	ug/l	
	3&4-Methylphenol	ND	10	0.46	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.48	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.36	ug/l	
108-95-2	Phenol	ND	5.2	0.33	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.47	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.46	ug/l	
62-53-3	Aniline	ND	10	0.47	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	0.25	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.33	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.2	0.35	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.37	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	0.51	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	0.43	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	0.43	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	0.27	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.2	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.38	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.39	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	0.55	ug/l	
132-64-9	Dibenzofuran	ND	2.1	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.2	0.28	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.2	0.30	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST3MW-ROX-041315		
Lab Sample ID:	MC37976-2	Date Sampled:	04/13/15
Matrix:	AQ - Ground Water	Date Received:	04/14/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.2	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	5.2	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.33	ug/l	
118-74-1	Hexachlorobenzene	ND	5.2	0.25	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.2	0.29	ug/l	
78-59-1	Isophorone	ND	5.2	0.48	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.37	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.42	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.53	ug/l	
98-95-3	Nitrobenzene	ND	5.2	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	0.26	ug/l	
110-86-1	Pyridine	ND	10	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	43%		10-79%
4165-62-2	Phenol-d5	29%		10-72%
118-79-6	2,4,6-Tribromophenol	101%		35-138%
4165-60-0	Nitrobenzene-d5	78%		30-116%
321-60-8	2-Fluorobiphenyl	63%		35-107%
1718-51-0	Terphenyl-d14	100%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST3MW-ROX-041315		
Lab Sample ID:	MC37976-2	Date Sampled:	04/13/15
Matrix:	AQ - Ground Water	Date Received:	04/14/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95280.D	1	04/23/15	MR	04/16/15	OP42705	MSI3564
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.028	0.10	0.0077	ug/l	J
208-96-8	Acenaphthylene	ND	0.10	0.0087	ug/l	
120-12-7	Anthracene	ND	0.10	0.010	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.052	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.052	0.020	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.0076	ug/l	
86-73-7	Fluorene	0.030	0.10	0.016	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.021	ug/l	
90-12-0	1-Methylnaphthalene	1.0	2.1	0.013	ug/l	J
91-57-6	2-Methylnaphthalene	0.50	2.1	0.011	ug/l	J
85-01-8	Phenanthrene	0.11	0.052	0.011	ug/l	
129-00-0	Pyrene	0.019	0.10	0.0088	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	72%		26-121%
321-60-8	2-Fluorobiphenyl	59%		28-107%
1718-51-0	Terphenyl-d14	103%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST3MW-ROX-041315		
Lab Sample ID:	MC37976-2	Date Sampled:	04/13/15
Matrix:	AQ - Ground Water	Date Received:	04/14/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62830.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	37.3 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0057	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0057	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	103%		60-140%
460-00-4	Bromofluorobenzene (S)	106%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW5-ROX-041315		
Lab Sample ID:	MC37976-3	Date Sampled:	04/13/15
Matrix:	AQ - Ground Water	Date Received:	04/14/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N96739.D	1	04/23/15	JB	n/a	n/a	MSN3561
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	39.1	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	1.4	5.0	0.50	ug/l	J
98-06-6	tert-Butylbenzene	5.1	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW5-ROX-041315		
Lab Sample ID:	MC37976-3	Date Sampled:	04/13/15
Matrix:	AQ - Ground Water	Date Received:	04/14/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	0.50	1.0	0.24	ug/l	J
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	7.6	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	34.9	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	5.6	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	0.57	1.0	0.29	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	8.8	1.0	0.47	ug/l	
95-47-6	o-Xylene	0.51	1.0	0.22	ug/l	J
1330-20-7	Xylene (total)	9.3	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW5-ROX-041315		
Lab Sample ID:	MC37976-3	Date Sampled:	04/13/15
Matrix:	AQ - Ground Water	Date Received:	04/14/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

4.3

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		72-133%
2037-26-5	Toluene-D8	102%		85-114%
460-00-4	4-Bromofluorobenzene	99%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW5-ROX-041315		
Lab Sample ID:	MC37976-3	Date Sampled:	04/13/15
Matrix:	AQ - Ground Water	Date Received:	04/14/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21606.D	1	04/23/15	KD	04/16/15	OP42704	MSW924
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.3	0.31	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.53	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.49	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	0.36	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	0.62	ug/l	
95-48-7	2-Methylphenol	ND	11	0.31	ug/l	
	3&4-Methylphenol	ND	11	0.47	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.49	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	11	0.36	ug/l	
108-95-2	Phenol	ND	5.3	0.34	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.47	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.47	ug/l	
62-53-3	Aniline	ND	11	0.48	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.26	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.34	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	0.36	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.38	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	0.52	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.44	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.44	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	0.27	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	0.31	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.39	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.40	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.56	ug/l	
132-64-9	Dibenzofuran	ND	2.1	0.26	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.3	0.28	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	0.30	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW5-ROX-041315		
Lab Sample ID:	MC37976-3	Date Sampled:	04/13/15
Matrix:	AQ - Ground Water	Date Received:	04/14/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

4.3

4

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.3	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	5.3	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.33	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.26	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.3	0.30	ug/l	
78-59-1	Isophorone	ND	5.3	0.49	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.38	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.43	ug/l	
100-01-6	4-Nitroaniline	ND	11	0.54	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.51	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	0.27	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.26	ug/l	
110-86-1	Pyridine	ND	11	0.38	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	50%		10-79%
4165-62-2	Phenol-d5	33%		10-72%
118-79-6	2,4,6-Tribromophenol	102%		35-138%
4165-60-0	Nitrobenzene-d5	88%		30-116%
321-60-8	2-Fluorobiphenyl	61%		35-107%
1718-51-0	Terphenyl-d14	103%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW5-ROX-041315		
Lab Sample ID:	MC37976-3	Date Sampled:	04/13/15
Matrix:	AQ - Ground Water	Date Received:	04/14/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95278.D	1	04/23/15	MR	04/16/15	OP42705	MSI3564
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.073	0.11	0.0079	ug/l	J
208-96-8	Acenaphthylene	ND	0.11	0.0088	ug/l	
120-12-7	Anthracene	ND	0.11	0.010	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.053	0.025	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.053	0.020	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.011	ug/l	
218-01-9	Chrysene	ND	0.11	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.016	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.0078	ug/l	
86-73-7	Fluorene	ND	0.11	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.021	ug/l	
90-12-0	1-Methylnaphthalene	0.099 J	2.1	0.013	ug/l	JB J
91-57-6	2-Methylnaphthalene	0.031 J	2.1	0.012	ug/l	JB J
85-01-8	Phenanthrene	ND	0.053	0.011	ug/l	
129-00-0	Pyrene	ND	0.11	0.0089	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	84%		26-121%
321-60-8	2-Fluorobiphenyl	57%		28-107%
1718-51-0	Terphenyl-d14	103%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW5-ROX-041315		
Lab Sample ID:	MC37976-3	Date Sampled:	04/13/15
Matrix:	AQ - Ground Water	Date Received:	04/14/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62828.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	37.6 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0057	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0057	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	112%		60-140%
460-00-4	Bromofluorobenzene (S)	128%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW2-ROX-041315		
Lab Sample ID:	MC37976-4	Date Sampled:	04/13/15
Matrix:	AQ - Ground Water	Date Received:	04/14/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N96752.D	1	04/23/15	JB	n/a	n/a	MSN3561
Run #2	N96807.D	50	04/24/15	JB	n/a	n/a	MSN3563

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	28.3	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	5.2	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	0.84	5.0	0.57	ug/l	J
75-15-0	Carbon disulfide	0.28	5.0	0.19	ug/l	J
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW2-ROX-041315		
Lab Sample ID:	MC37976-4	Date Sampled:	04/13/15
Matrix:	AQ - Ground Water	Date Received:	04/14/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	547 [a]	50	12	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	61.3	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	6.4	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	1.3	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	68.0	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	80.2	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	10.3	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	185	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	88.2	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	549	1.0	0.47	ug/l	
95-47-6	o-Xylene	49.5	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	598	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW2-ROX-041315		
Lab Sample ID:	MC37976-4	Date Sampled:	04/13/15
Matrix:	AQ - Ground Water	Date Received:	04/14/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%	107%	72-133%
2037-26-5	Toluene-D8	101%	105%	85-114%
460-00-4	4-Bromofluorobenzene	89%	94%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW2-ROX-041315		
Lab Sample ID:	MC37976-4	Date Sampled:	04/13/15
Matrix:	AQ - Ground Water	Date Received:	04/14/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21609.D	1	04/23/15	KD	04/16/15	OP42704	MSW924
Run #2							

	Initial Volume	Final Volume
Run #1	920 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	2.7	ug/l	
95-57-8	2-Chlorophenol	ND	5.4	0.32	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.51	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	0.37	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	0.64	ug/l	
95-48-7	2-Methylphenol	ND	11	0.33	ug/l	
	3&4-Methylphenol	0.66	11	0.48	ug/l	J
88-75-5	2-Nitrophenol	ND	11	0.51	ug/l	
100-02-7	4-Nitrophenol	ND	22	1.4	ug/l	
87-86-5	Pentachlorophenol	ND	11	0.38	ug/l	
108-95-2	Phenol	ND	5.4	0.35	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.49	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.49	ug/l	
62-53-3	Aniline	ND	11	0.50	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.4	0.27	ug/l	
85-68-7	Butyl benzyl phthalate	1.0	5.4	0.26	ug/l	J
100-51-6	Benzyl Alcohol	ND	11	0.35	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.4	0.37	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.39	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.4	0.54	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.4	0.45	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.4	0.46	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.4	0.28	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.4	0.32	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.40	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.41	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.4	0.58	ug/l	
132-64-9	Dibenzofuran	ND	2.2	0.27	ug/l	
84-74-2	Di-n-butyl phthalate	0.45	5.4	0.29	ug/l	JB
117-84-0	Di-n-octyl phthalate	ND	5.4	0.31	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW2-ROX-041315		
Lab Sample ID:	MC37976-4	Date Sampled:	04/13/15
Matrix:	AQ - Ground Water	Date Received:	04/14/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.4	0.29	ug/l	
131-11-3	Dimethyl phthalate	ND	5.4	0.26	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.35	ug/l	
118-74-1	Hexachlorobenzene	ND	5.4	0.27	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.4	ug/l	
67-72-1	Hexachloroethane	ND	5.4	0.31	ug/l	
78-59-1	Isophorone	ND	5.4	0.51	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.39	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.44	ug/l	
100-01-6	4-Nitroaniline	ND	11	0.56	ug/l	
98-95-3	Nitrobenzene	ND	5.4	0.53	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.4	0.27	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.4	0.28	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.4	0.27	ug/l	
110-86-1	Pyridine	ND	11	0.39	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	51%		10-79%
4165-62-2	Phenol-d5	34%		10-72%
118-79-6	2,4,6-Tribromophenol	106%		35-138%
4165-60-0	Nitrobenzene-d5	82%		30-116%
321-60-8	2-Fluorobiphenyl	71%		35-107%
1718-51-0	Terphenyl-d14	100%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW2-ROX-041315		
Lab Sample ID:	MC37976-4	Date Sampled:	04/13/15
Matrix:	AQ - Ground Water	Date Received:	04/14/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95281.D	1	04/23/15	MR	04/16/15	OP42705	MSI3564
Run #2							

	Initial Volume	Final Volume
Run #1	920 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.041	0.11	0.0082	ug/l	J
208-96-8	Acenaphthylene	ND	0.11	0.0091	ug/l	
120-12-7	Anthracene	ND	0.11	0.011	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.054	0.026	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.054	0.021	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.014	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.011	ug/l	
218-01-9	Chrysene	ND	0.11	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.016	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.0080	ug/l	
86-73-7	Fluorene	ND	0.11	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.022	ug/l	
90-12-0	1-Methylnaphthalene	12.4	2.2	0.013	ug/l	
91-57-6	2-Methylnaphthalene	25.3	2.2	0.012	ug/l	
85-01-8	Phenanthrene	0.023	0.054	0.012	ug/l	J
129-00-0	Pyrene	ND	0.11	0.0092	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	81%		26-121%
321-60-8	2-Fluorobiphenyl	66%		28-107%
1718-51-0	Terphenyl-d14	103%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW2-ROX-041315		
Lab Sample ID:	MC37976-4	Date Sampled:	04/13/15
Matrix:	AQ - Ground Water	Date Received:	04/14/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62831.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	36.6 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0059	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0058	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	106%		60-140%
460-00-4	Bromofluorobenzene (S)	112%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-041315-HCL		
Lab Sample ID:	MC37976-5	Date Sampled:	04/13/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/14/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N96738.D	1	04/23/15	JB	n/a	n/a	MSN3561
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	.25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-041315-HCL		
Lab Sample ID:	MC37976-5	Date Sampled:	04/13/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/14/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-041315-HCL		
Lab Sample ID:	MC37976-5	Date Sampled:	04/13/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/14/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		72-133%
2037-26-5	Toluene-D8	102%		85-114%
460-00-4	4-Bromofluorobenzene	102%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-041315-ST		
Lab Sample ID:	MC37976-6	Date Sampled:	04/13/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/14/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62832.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	36.9 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0058	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0058	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	113%		60-140%
460-00-4	Bromofluorobenzene (S)	119%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

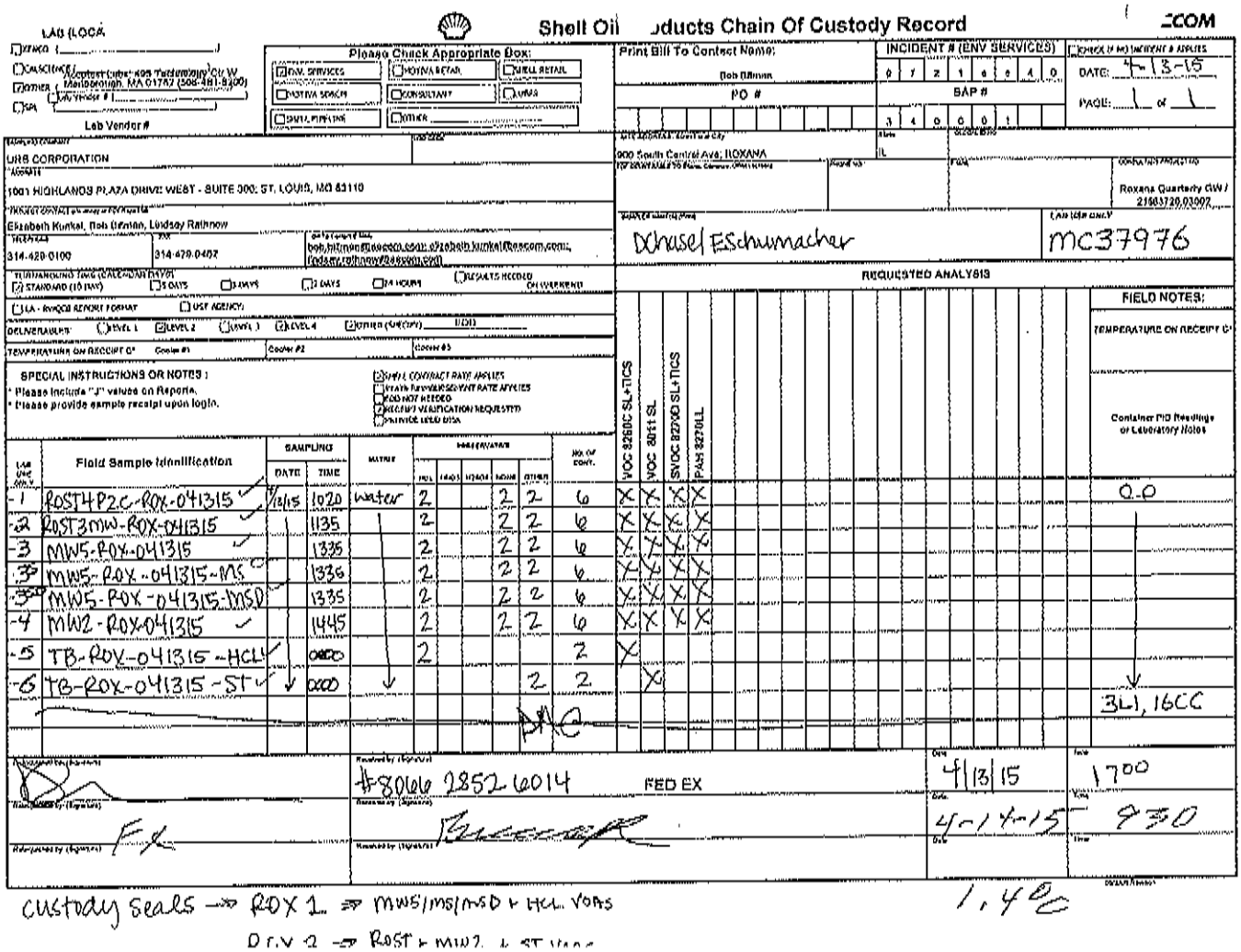
Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

LAB (LOCA



Shell Oil Products Chain Of Custody Record

ECOM

Please Check Appropriate Box:

Print Bill To Contact Name: Bob Billman

INCIDENT # (ENV SERVICES): 0 7 2 1 6 6 4 0

SAP #: 3 4 0 0 0 1

DATE: 4-13-15

PAGE: 1 of 1

Lab Vendor #

URS CORPORATION

1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300, ST. LOUIS, MO 63110

Elizabeth Kunkel, Bob Billman, Lindsay Rathnow

314-429-0100 | 314-429-0402

bob.billman@eacom.com; elizabeth.kunkel@eacom.com; lindsay.rathnow@eacom.com

900 South Central Ave, ROXANA

Roxana Quarterly GW / 21503720.03002

Dchasel Eschumacher

MC37976

TURNAROUND TIME (CALENDAR DAYS): STANDARD (10 DAY) | 5 DAYS | 3 DAYS | 2 DAYS | 24 HOURS | RESULTS NEEDED ON WEEKEND

LA - RWQCB REPORT FORMAT | UST AGENCY

DELIVERABLES: LEVEL 1 | LEVEL 2 | LEVEL 3 | LEVEL 4 | OTHER (SPECIFY) EDD

TEMPERATURE ON RECEIPT C°: Cooler #1 | Cooler #2 | Cooler #3

SPECIAL INSTRUCTIONS OR NOTES:
* Please include "J" values on Reports.
* Please provide sample receipt upon login.

SHELL CONTRACT RATE APPLIES
STATE REVIEW/SEVENT RATE APPLIES
COD NOT NEEDED
RECEIPT VERIFICATION REQUESTED
PREVIOUS LEED DISA

REQUESTED ANALYSIS

FIELD NOTES:

TEMPERATURE ON RECEIPT C°

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260C SL+TICS	VOC 8011 SL	SVOC 8270D SL+TICS	PAH 8270LL	Container PID Readings or Laboratory Notes
-1	ROST4P2C-ROX-041315	4/13/15	1020	water	2			2	2	6	X	X	X	X	0.0
-2	ROST3MW-ROX-041315		1135		2			2	2	6	X	X	X	X	
-3	MW5-ROX-041315		1335		2			2	2	6	X	X	X	X	
-3	MW5-ROX-041315-MS		1335		2			2	2	6	X	X	X	X	
-3	MW5-ROX-041315-MSD		1335		2			2	2	6	X	X	X	X	
-4	MW2-ROX-041315		1445		2			2	2	6	X	X	X	X	
-5	TB-ROX-041315-HCL		0000		2					2	X				
-6	TB-ROX-041315-ST		0000						2	2		X			
															3L1, 16CC

DAC

Relinquished by (Signature)	Received by (Signature)	Date	Time
[signature]	#8066 2852 6014 FED EX	4/13/15	1700
Relinquished by (Signature)	Received by (Signature)	Date	Time
FX	[signature]	4-14-15	930
Relinquished by (Signature)	Received by (Signature)	Date	Time

custody seals → ROX 1 ⇒ MW5/MS/MSD + HCL VOAs

ROX 2 → ROST + MW2 + ST VOAs

1.4°C

MC37976: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC37976 **Client:** URS **Project:** 900 SOUTH CENTRAL AVE

Date / Time Received: 4/14/2015 9:30:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (1.4/1.4);

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	☑ ☐	3. COC Present:	☑ ☐
2. Custody Seals Intact:	☑ ☐	4. Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Thermometer ID:	G1;
3. Cooler media:	Ice (Bag)
4. No. Coolers:	1

Quality Control Preservation	Y or N	N/A
1. Trip Blank present / cooler:	☑ ☐	☐
2. Trip Blank listed on COC:	☑ ☐	☐
3. Samples preserved properly:	☑ ☐	
4. VOCs headspace free:	☑ ☐	☐

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	☑ ☐
2. Container labeling complete:	☑ ☐
3. Sample container label / COC agree:	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	☑ ☐
2. All containers accounted for:	☑ ☐
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear:	☑ ☐	
2. Bottles received for unspecified tests	☐ ☑	
3. Sufficient volume recvd for analysis:	☑ ☐	
4. Compositing instructions clear:	☐ ☐	☑
5. Filtering instructions clear:	☐ ☐	☑

Comments

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC37976

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC37976-1 Collected: 13-APR-15 10:20 By: DCES Received: 14-APR-15 By: ROST4PZC-ROX-041315						
MC37976-1	SW846 8011	18-APR-15 05:43	NK	16-APR-15	AW	V8011SL
MC37976-1	SW846 8270D	23-APR-15 10:48	KD	16-APR-15	PA	AB8270SL+
MC37976-1	SW846 8270D BY SIM	23-APR-15 13:56	MR	16-APR-15	PA	B8270SIMSL
MC37976-1	SW846 8260C	23-APR-15 15:09	JB			V8260SL+
MC37976-2 Collected: 13-APR-15 11:35 By: DCES Received: 14-APR-15 By: ROST3MW-ROX-041315						
MC37976-2	SW846 8011	18-APR-15 06:11	NK	16-APR-15	AW	V8011SL
MC37976-2	SW846 8270D	23-APR-15 11:13	KD	16-APR-15	PA	AB8270SL+
MC37976-2	SW846 8260C	23-APR-15 13:17	JB			V8260SL+
MC37976-2	SW846 8270D BY SIM	23-APR-15 14:20	MR	16-APR-15	PA	B8270SIMSL
MC37976-3 Collected: 13-APR-15 13:35 By: DCES Received: 14-APR-15 By: MW5-ROX-041315						
MC37976-3	SW846 8011	18-APR-15 05:14	NK	16-APR-15	AW	V8011SL
MC37976-3	SW846 8270D	23-APR-15 10:23	KD	16-APR-15	PA	AB8270SL+
MC37976-3	SW846 8260C	23-APR-15 12:49	JB			V8260SL+
MC37976-3	SW846 8270D BY SIM	23-APR-15 13:33	MR	16-APR-15	PA	B8270SIMSL
MC37976-4 Collected: 13-APR-15 14:45 By: DCES Received: 14-APR-15 By: MW2-ROX-041315						
MC37976-4	SW846 8011	18-APR-15 06:39	NK	16-APR-15	AW	V8011SL
MC37976-4	SW846 8270D	23-APR-15 11:37	KD	16-APR-15	PA	AB8270SL+
MC37976-4	SW846 8270D BY SIM	23-APR-15 14:44	MR	16-APR-15	PA	B8270SIMSL
MC37976-4	SW846 8260C	23-APR-15 18:53	JB			V8260SL+
MC37976-4	SW846 8260C	24-APR-15 21:04	JB			V8260SL+
MC37976-5 Collected: 13-APR-15 00:00 By: DCES Received: 14-APR-15 By: TB-ROX-041315-HCL						
MC37976-5	SW846 8260C	23-APR-15 12:20	JB			V8260SL+

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC37976

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC37976-6 Collected: 13-APR-15 00:00 By: DCES Received: 14-APR-15 By: TB-ROX-041315-ST						
MC37976-6	SW846 8011	18-APR-15 07:07	NK	16-APR-15	AW	V8011SL

Accutest Internal Chain of Custody

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Received: 04/14/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC37976-1.1	Walk In Ref #22	Forrest Thompson	04/16/15 19:32	Retrieve from Storage
MC37976-1.4	VOC Ref #3	Jaclyn Bergeron	04/23/15 09:54	Retrieve from Storage
MC37976-1.4	Jaclyn Bergeron	GCMSN	04/23/15 09:54	Load on Instrument
MC37976-1.4	GCMSN	Jaclyn Bergeron	04/24/15 11:01	Unload from Instrument
MC37976-1.4	Jaclyn Bergeron	VOC Ref #3	04/24/15 11:01	Return to Storage
MC37976-1.5	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC37976-1.5	Nicole Estey		04/16/15 23:05	Depleted
MC37976-2.2	Walk In Ref #22	Forrest Thompson	04/16/15 19:32	Retrieve from Storage
MC37976-2.3	VOC Ref #3	Jaclyn Bergeron	04/23/15 09:54	Retrieve from Storage
MC37976-2.3	Jaclyn Bergeron	GCMSN	04/23/15 09:54	Load on Instrument
MC37976-2.3	GCMSN	Jaclyn Bergeron	04/24/15 11:01	Unload from Instrument
MC37976-2.3	Jaclyn Bergeron	VOC Ref #3	04/24/15 11:01	Return to Storage
MC37976-2.5	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC37976-2.5	Nicole Estey		04/16/15 23:05	Depleted
MC37976-3.1	Walk In Ref #22	Forrest Thompson	04/16/15 19:32	Retrieve from Storage
MC37976-3.3	Walk In Ref #22	Forrest Thompson	04/16/15 20:53	Retrieve from Storage
MC37976-3.4	Walk In Ref #22	Forrest Thompson	04/16/15 20:53	Retrieve from Storage
MC37976-3.8	VOC Ref #3	Jaclyn Bergeron	04/23/15 09:54	Retrieve from Storage
MC37976-3.8	Jaclyn Bergeron	GCMSN	04/23/15 09:54	Load on Instrument
MC37976-3.8	GCMSN	Jaclyn Bergeron	04/24/15 11:01	Unload from Instrument
MC37976-3.8	Jaclyn Bergeron	VOC Ref #3	04/24/15 11:01	Return to Storage
MC37976-3.9	VOC Ref #3	Jaclyn Bergeron	04/23/15 09:54	Retrieve from Storage
MC37976-3.9	Jaclyn Bergeron	GCMSN	04/23/15 09:54	Load on Instrument
MC37976-3.9	GCMSN	Jaclyn Bergeron	04/24/15 11:01	Unload from Instrument
MC37976-3.9	Jaclyn Bergeron	VOC Ref #3	04/24/15 11:01	Return to Storage
MC37976-3.10	VOC Ref #3	Jaclyn Bergeron	04/23/15 09:54	Retrieve from Storage
MC37976-3.10	Jaclyn Bergeron	GCMSN	04/23/15 09:54	Load on Instrument
MC37976-3.10	GCMSN	Jaclyn Bergeron	04/24/15 11:01	Unload from Instrument
MC37976-3.10	Jaclyn Bergeron	VOC Ref #3	04/24/15 11:01	Return to Storage
MC37976-3.12	VOC Ref #3	Jaclyn Bergeron	04/23/15 09:54	Retrieve from Storage
MC37976-3.12	Jaclyn Bergeron	GCMSN	04/23/15 09:54	Load on Instrument
MC37976-3.12	GCMSN	Jaclyn Bergeron	04/24/15 11:01	Unload from Instrument

Accutest Internal Chain of Custody

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Received: 04/14/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC37976-3.12	Jaclyn Bergeron	VOC Ref #3	04/24/15 11:01	Return to Storage
MC37976-3.13	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC37976-3.13	Nicole Estey		04/16/15 23:05	Depleted
MC37976-3.14	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC37976-3.14	Nicole Estey		04/16/15 23:05	Depleted
MC37976-3.18	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC37976-3.18	Nicole Estey		04/16/15 23:05	Depleted
MC37976-4.1	Walk In Ref #22	Forrest Thompson	04/16/15 19:32	Retrieve from Storage
MC37976-4.3	VOC Ref #3	Jaclyn Bergeron	04/23/15 09:54	Retrieve from Storage
MC37976-4.3	Jaclyn Bergeron	GCMSN	04/23/15 09:54	Load on Instrument
MC37976-4.3	GCMSN	Jaclyn Bergeron	04/24/15 11:01	Unload from Instrument
MC37976-4.3	Jaclyn Bergeron	VOC Ref #3	04/24/15 11:01	Return to Storage
MC37976-4.4	VOC Ref #3	Jaclyn Bergeron	04/24/15 11:08	Retrieve from Storage
MC37976-4.4	Jaclyn Bergeron	GCMSN	04/24/15 11:08	Load on Instrument
MC37976-4.4	GCMSN	Jaclyn Bergeron	04/27/15 09:33	Unload from Instrument
MC37976-4.4	Jaclyn Bergeron	VOC Ref #3	04/27/15 09:33	Return to Storage
MC37976-4.5	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC37976-4.5	Nicole Estey		04/16/15 23:05	Depleted
MC37976-5.1	VOC Ref #3	Jaclyn Bergeron	04/23/15 09:54	Retrieve from Storage
MC37976-5.1	Jaclyn Bergeron	GCMSN	04/23/15 09:54	Load on Instrument
MC37976-5.1	GCMSN	Jaclyn Bergeron	04/24/15 11:01	Unload from Instrument
MC37976-5.1	Jaclyn Bergeron	VOC Ref #3	04/24/15 11:01	Return to Storage
MC37976-6.1	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC37976-6.1	Nicole Estey		04/16/15 23:05	Depleted

New England ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3561-MB	N96735.D	1	04/23/15	JB	n/a	n/a	MSN3561

The QC reported here applies to the following samples: Method: SW846 8260C

MC37976-1, MC37976-2, MC37976-3, MC37976-4, MC37976-5

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	

Method Blank Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3561-MB	N96735.D	1	04/23/15	JB	n/a	n/a	MSN3561

The QC reported here applies to the following samples: Method: SW846 8260C

MC37976-1, MC37976-2, MC37976-3, MC37976-4, MC37976-5

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

Method Blank Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3561-MB	N96735.D	1	04/23/15	JB	n/a	n/a	MSN3561

The QC reported here applies to the following samples: Method: SW846 8260C

MC37976-1, MC37976-2, MC37976-3, MC37976-4, MC37976-5

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	101%	72-133%
2037-26-5	Toluene-D8	100%	85-114%
460-00-4	4-Bromofluorobenzene	100%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3563-MB	N96787.D	1	04/24/15	JB	n/a	n/a	MSN3563

The QC reported here applies to the following samples: Method: SW846 8260C

MC37976-4

CAS No.	Compound	Result	RL	MDL	Units	Q
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	104%	72-133%
2037-26-5	Toluene-D8	102%	85-114%
460-00-4	4-Bromofluorobenzene	99%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3563-BS	N96784.D	1	04/24/15	JB	n/a	n/a	MSN3563

The QC reported here applies to the following samples: Method: SW846 8260C

MC37976-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
100-41-4	Ethylbenzene	50	43.5	87	71-129

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	106%	72-133%
2037-26-5	Toluene-D8	104%	85-114%
460-00-4	4-Bromofluorobenzene	91%	70-134%

6.2.1

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3561-BS	N96731.D	1	04/23/15	JB	n/a	n/a	MSN3561
MSN3561-BSD	N96732.D	1	04/23/15	JB	n/a	n/a	MSN3561

The QC reported here applies to the following samples: Method: SW846 8260C

MC37976-1, MC37976-2, MC37976-3, MC37976-4, MC37976-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	67.2	134	62.0	124	8	14-172/25
107-02-8	Acrolein	250	346	138	320	128	8	10-168/25
107-13-1	Acrylonitrile	50	53.0	106	52.0	104	2	41-158/25
71-43-2	Benzene	50	45.3	91	45.9	92	1	68-127/25
108-86-1	Bromobenzene	50	40.7	81	41.3	83	1	74-124/25
74-97-5	Bromochloromethane	50	50.9	102	51.0	102	0	68-135/25
75-27-4	Bromodichloromethane	50	41.2	82	41.6	83	1	72-144/25
75-25-2	Bromoform	50	44.9	90	43.6	87	3	59-147/25
74-83-9	Bromomethane	50	55.1	110	57.0	114	3	34-175/25
78-93-3	2-Butanone (MEK)	50	67.4	135	65.6	131	3	43-147/25
104-51-8	n-Butylbenzene	50	45.3	91	45.5	91	0	77-136/25
135-98-8	sec-Butylbenzene	50	39.6	79	40.1	80	1	75-134/25
98-06-6	tert-Butylbenzene	50	36.9	74	37.2	74	1	74-132/25
75-15-0	Carbon disulfide	50	52.8	106	53.2	106	1	34-171/25
56-23-5	Carbon tetrachloride	50	42.7	85	43.4	87	2	55-153/25
108-90-7	Chlorobenzene	50	43.2	86	43.4	87	0	71-123/25
75-00-3	Chloroethane	50	47.7	95	48.0	96	1	58-175/25
110-75-8	2-Chloroethyl vinyl ether	50	44.7	89	45.2	90	1	44-169/25
67-66-3	Chloroform	50	45.0	90	45.8	92	2	67-136/25
74-87-3	Chloromethane	50	49.0	98	48.5	97	1	25-182/25
95-49-8	o-Chlorotoluene	50	37.2	74	37.9	76	2	72-130/25
106-43-4	p-Chlorotoluene	50	38.1	76	38.7	77	2	73-127/25
124-48-1	Dibromochloromethane	50	43.3	87	43.0	86	1	73-139/25
95-50-1	1,2-Dichlorobenzene	50	40.4	81	41.1	82	2	77-125/25
541-73-1	1,3-Dichlorobenzene	50	40.1	80	40.6	81	1	77-124/25
106-46-7	1,4-Dichlorobenzene	50	40.4	81	40.8	82	1	73-128/25
75-71-8	Dichlorodifluoromethane	50	52.6	105	52.8	106	0	23-157/25
75-34-3	1,1-Dichloroethane	50	44.3	89	45.4	91	2	63-145/25
107-06-2	1,2-Dichloroethane	50	38.4	77	38.4	77	0	58-145/25
75-35-4	1,1-Dichloroethene	50	53.3	107	53.1	106	0	56-158/25
156-59-2	cis-1,2-Dichloroethene	50	52.9	106	52.7	105	0	67-133/25
156-60-5	trans-1,2-Dichloroethene	50	54.2	108	53.6	107	1	66-136/25
78-87-5	1,2-Dichloropropane	50	44.7	89	45.2	90	1	75-133/25
142-28-9	1,3-Dichloropropane	50	45.4	91	45.6	91	0	70-127/25
594-20-7	2,2-Dichloropropane	50	53.1	106	53.0	106	0	52-163/25
563-58-6	1,1-Dichloropropene	50	42.8	86	43.8	88	2	77-140/25

* = Outside of Control Limits.

6.3.1

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3561-BS	N96731.D	1	04/23/15	JB	n/a	n/a	MSN3561
MSN3561-BSD	N96732.D	1	04/23/15	JB	n/a	n/a	MSN3561

The QC reported here applies to the following samples: Method: SW846 8260C

MC37976-1, MC37976-2, MC37976-3, MC37976-4, MC37976-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	50	51.1	102	51.9	104	2	74-141/25
10061-02-6	trans-1,3-Dichloropropene	50	48.3	97	48.5	97	0	77-143/25
123-91-1	1,4-Dioxane	250	244	98	224	90	9	30-182/25
97-63-2	Ethyl methacrylate	50	50.5	101	50.1	100	1	64-131/25
100-41-4	Ethylbenzene	50	44.1	88	44.0	88	0	71-129/25
87-68-3	Hexachlorobutadiene	50	43.8	88	43.5	87	1	64-146/25
591-78-6	2-Hexanone	50	63.9	128	58.5	117	9	22-163/25
98-82-8	Isopropylbenzene	50	38.1	76	39.0	78	2	72-133/25
99-87-6	p-Isopropyltoluene	50	42.2	84	42.2	84	0	77-134/25
1634-04-4	Methyl Tert Butyl Ether	50	48.1	96	47.3	95	2	46-151/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	49.0	98	45.4	91	8	47-145/25
74-95-3	Methylene bromide	50	42.0	84	41.5	83	1	70-132/25
75-09-2	Methylene chloride	50	47.3	95	47.4	95	0	55-146/25
91-20-3	Naphthalene	50	34.5	69	30.6	61	12	39-176/25
103-65-1	n-Propylbenzene	50	38.6	77	39.3	79	2	74-134/25
100-42-5	Styrene	50	47.3	95	47.5	95	0	71-134/25
630-20-6	1,1,1,2-Tetrachloroethane	50	43.0	86	43.0	86	0	70-137/25
79-34-5	1,1,2,2-Tetrachloroethane	50	43.6	87	42.2	84	3	58-145/25
127-18-4	Tetrachloroethene	50	46.1	92	46.2	92	0	63-137/25
108-88-3	Toluene	50	47.1	94	48.3	97	3	75-126/25
87-61-6	1,2,3-Trichlorobenzene	50	40.9	82	37.9	76	8	27-181/25
120-82-1	1,2,4-Trichlorobenzene	50	40.6	81	38.9	78	4	40-176/25
71-55-6	1,1,1-Trichloroethane	50	45.1	90	45.3	91	0	68-144/25
79-00-5	1,1,2-Trichloroethane	50	45.9	92	45.4	91	1	72-133/25
79-01-6	Trichloroethene	50	43.0	86	43.4	87	1	73-126/25
75-69-4	Trichlorofluoromethane	50	46.7	93	47.0	94	1	43-152/25
96-18-4	1,2,3-Trichloropropane	50	43.2	86	41.5	83	4	58-141/25
95-63-6	1,2,4-Trimethylbenzene	50	39.8	80	40.2	80	1	76-129/25
108-67-8	1,3,5-Trimethylbenzene	50	40.9	82	41.8	84	2	71-127/25
108-05-4	Vinyl Acetate	50	79.6	159	75.9	152	5	10-170/25
75-01-4	Vinyl chloride	50	44.3	89	45.5	91	3	36-167/25
	m,p-Xylene	100	87.1	87	88.3	88	1	68-130/25
95-47-6	o-Xylene	50	42.3	85	42.6	85	1	69-126/25
1330-20-7	Xylene (total)	150	129	86	131	87	2	67-129/25

* = Outside of Control Limits.

6.3.1

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3561-BS	N96731.D	1	04/23/15	JB	n/a	n/a	MSN3561
MSN3561-BSD	N96732.D	1	04/23/15	JB	n/a	n/a	MSN3561

6.3.1

The QC reported here applies to the following samples: Method: SW846 8260C

MC37976-1, MC37976-2, MC37976-3, MC37976-4, MC37976-5

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	99%	98%	72-133%
2037-26-5	Toluene-D8	99%	100%	85-114%
460-00-4	4-Bromofluorobenzene	90%	92%	70-134%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL.

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC37976-3MS	N96753.D	1	04/23/15	JB	n/a	n/a	MSN3561
MC37976-3MSD	N96754.D	1	04/23/15	JB	n/a	n/a	MSN3561
MC37976-3	N96739.D	1	04/23/15	JB	n/a	n/a	MSN3561

The QC reported here applies to the following samples: Method: SW846 8260C

MC37976-1, MC37976-2, MC37976-3, MC37976-4, MC37976-5

CAS No.	Compound	MC37976-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		50	27.4	55	50	24.0	48	13	10-135/30
107-02-8	Acrolein	ND		250	331	132	250	308	123	7	10-175/30
107-13-1	Acrylonitrile	ND		50	54.4	109	50	51.9	104	5	37-163/30
71-43-2	Benzene	39.1		50	82.1	86	50	79.2	80	4	61-138/30
108-86-1	Bromobenzene	ND		50	41.0	82	50	40.9	82	0	71-126/30
74-97-5	Bromochloromethane	ND		50	55.9	112	50	54.0	108	3	70-136/30
75-27-4	Bromodichloromethane	ND		50	44.4	89	50	42.6	85	4	73-146/30
75-25-2	Bromoform	ND		50	43.9	88	50	41.9	84	5	54-147/30
74-83-9	Bromomethane	ND		50	55.9	112	50	58.8	118	5	20-171/30
78-93-3	2-Butanone (MEK)	ND		50	45.8	92	50	41.6	83	10	33-127/30
104-51-8	n-Butylbenzene	ND		50	44.2	88	50	43.7	87	1	69-138/30
135-98-8	sec-Butylbenzene	1.4	J	50	40.4	78	50	39.7	77	2	71-137/30
98-06-6	tert-Butylbenzene	5.1		50	41.0	72	50	40.2	70	2	68-137/30
75-15-0	Carbon disulfide	ND		50	58.5	117	50	56.6	113	3	29-178/30
56-23-5	Carbon tetrachloride	ND		50	45.2	90	50	43.7	87	3	57-155/30
108-90-7	Chlorobenzene	ND		50	43.1	86	50	42.6	85	1	69-126/30
75-00-3	Chloroethane	ND		50	50.1	100	50	49.8	100	1	57-182/30
110-75-8	2-Chloroethyl vinyl ether	ND		50	48.1	96	50	46.9	94	3	10-200/30
67-66-3	Chloroform	ND		50	49.6	99	50	48.0	96	3	66-142/30
74-87-3	Chloromethane	ND		50	45.1	90	50	43.2	86	4	18-182/30
95-49-8	o-Chlorotoluene	ND		50	38.4	77	50	37.4	75	3	60-145/30
106-43-4	p-Chlorotoluene	ND		50	38.9	78	50	37.9	76	3	64-138/30
124-48-1	Dibromochloromethane	ND		50	42.8	86	50	41.7	83	3	71-138/30
95-50-1	1,2-Dichlorobenzene	ND		50	39.7	79	50	39.5	79	1	75-125/30
541-73-1	1,3-Dichlorobenzene	ND		50	39.8	80	50	39.7	79	0	74-125/30
106-46-7	1,4-Dichlorobenzene	ND		50	39.9	80	50	39.6	79	1	72-128/30
75-71-8	Dichlorodifluoromethane	ND		50	50.1	100	50	47.8	96	5	23-159/30
75-34-3	1,1-Dichloroethane	ND		50	50.3	101	50	48.7	97	3	63-150/30
107-06-2	1,2-Dichloroethane	ND		50	41.3	83	50	39.7	79	4	57-150/30
75-35-4	1,1-Dichloroethene	ND		50	57.1	114	50	55.4	111	3	53-165/30
156-59-2	cis-1,2-Dichloroethene	ND		50	57.1	114	50	55.6	111	3	66-138/30
156-60-5	trans-1,2-Dichloroethene	ND		50	57.9	116	50	55.8	112	4	65-141/30
78-87-5	1,2-Dichloropropane	ND		50	48.1	96	50	46.9	94	3	76-136/30
142-28-9	1,3-Dichloropropane	ND		50	46.2	92	50	44.5	89	4	71-127/30
594-20-7	2,2-Dichloropropane	ND		50	56.8	114	50	54.0	108	5	33-175/30
563-58-6	1,1-Dichloropropene	ND		50	45.9	92	50	44.0	88	4	76-145/30

* = Outside of Control Limits.

6.4.1

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC37976-3MS	N96753.D	1	04/23/15	JB	n/a	n/a	MSN3561
MC37976-3MSD	N96754.D	1	04/23/15	JB	n/a	n/a	MSN3561
MC37976-3	N96739.D	1	04/23/15	JB	n/a	n/a	MSN3561

The QC reported here applies to the following samples: Method: SW846 8260C

MC37976-1, MC37976-2, MC37976-3, MC37976-4, MC37976-5

CAS No.	Compound	MC37976-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		50	53.7	107	50	53.2	106	1	75-137/30
10061-02-6	trans-1,3-Dichloropropene	ND		50	50.3	101	50	48.7	97	3	77-139/30
123-91-1	1,4-Dioxane	ND		250	240	96	250	228	91	5	29-167/30
97-63-2	Ethyl methacrylate	ND		50	56.7	113	50	54.1	108	5	60-135/30
100-41-4	Ethylbenzene	0.50	J	50	48.0	95	50	44.8	89	7	61-137/30
87-68-3	Hexachlorobutadiene	ND		50	41.8	84	50	41.7	83	0	59-141/30
591-78-6	2-Hexanone	ND		50	38.2	76	50	33.7	67	13	12-141/30
98-82-8	Isopropylbenzene	7.6		50	45.6	76	50	44.1	73	3	64-141/30
99-87-6	p-Isopropyltoluene	ND		50	41.7	83	50	41.1	82	1	73-135/30
1634-04-4	Methyl Tert Butyl Ether	34.9		50	89.7	110	50	84.7	100	6	34-160/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	48.3	97	50	44.8	90	8	47-143/30
74-95-3	Methylene bromide	ND		50	44.0	88	50	42.3	85	4	73-132/30
75-09-2	Methylene chloride	ND		50	52.3	105	50	49.9	100	5	52-154/30
91-20-3	Naphthalene	ND		50	40.1	80	50	36.5	73	9	21-185/30
103-65-1	n-Propylbenzene	5.6		50	44.3	77	50	43.0	75	3	66-141/30
100-42-5	Styrene	ND		50	47.7	95	50	46.6	93	2	60-142/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		50	43.3	87	50	42.2	84	3	69-138/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	44.3	89	50	42.7	85	4	58-147/30
127-18-4	Tetrachloroethene	ND		50	45.8	92	50	44.4	89	3	60-140/30
108-88-3	Toluene	0.57	J	50	55.9	111	50	54.3	107	3	74-131/30
87-61-6	1,2,3-Trichlorobenzene	ND		50	41.8	84	50	42.0	84	0	12-184/30
120-82-1	1,2,4-Trichlorobenzene	ND		50	40.1	80	50	39.9	80	1	30-175/30
71-55-6	1,1,1-Trichloroethane	ND		50	50.2	100	50	48.2	96	4	67-151/30
79-00-5	1,1,2-Trichloroethane	ND		50	48.8	98	50	47.7	95	2	73-134/30
79-01-6	Trichloroethene	ND		50	46.0	92	50	44.9	90	2	68-133/30
75-69-4	Trichlorofluoromethane	ND		50	49.9	100	50	47.9	96	4	40-159/30
96-18-4	1,2,3-Trichloropropane	ND		50	43.8	88	50	41.9	84	4	54-141/30
95-63-6	1,2,4-Trimethylbenzene	ND		50	41.4	83	50	39.8	80	4	62-142/30
108-67-8	1,3,5-Trimethylbenzene	ND		50	42.3	85	50	40.6	81	4	62-133/30
108-05-4	Vinyl Acetate	ND		50	102	204* a	50	95.2	190* a	7	10-169/30
75-01-4	Vinyl chloride	ND		50	46.8	94	50	45.2	90	3	29-176/30
	m,p-Xylene	8.8		100	97.1	88	100	92.7	84	5	58-139/30
95-47-6	o-Xylene	0.51	J	50	43.5	86	50	42.6	84	2	61-135/30
1330-20-7	Xylene (total)	9.3		150	141	88	150	135	84	4	60-136/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL.

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC37976-3MS	N96753.D	1	04/23/15	JB	n/a	n/a	MSN3561
MC37976-3MSD	N96754.D	1	04/23/15	JB	n/a	n/a	MSN3561
MC37976-3	N96739.D	1	04/23/15	JB	n/a	n/a	MSN3561

The QC reported here applies to the following samples: Method: SW846 8260C

MC37976-1, MC37976-2, MC37976-3, MC37976-4, MC37976-5

CAS No.	Surrogate Recoveries	MS	MSD	MC37976-3	Limits
1868-53-7	Dibromofluoromethane	102%	103%	108%	72-133%
2037-26-5	Toluene-D8	102%	102%	102%	85-114%
460-00-4	4-Bromofluorobenzene	94%	94%	99%	70-134%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D69954-1MS	N96805.D	5	04/24/15	JB	n/a	n/a	MSN3563
D69954-1MSD	N96806.D	5	04/24/15	JB	n/a	n/a	MSN3563
D69954-1	N96789.D	1	04/24/15	JB	n/a	n/a	MSN3563

The QC reported here applies to the following samples: Method: SW846 8260C

MC37976-4

CAS No.	Compound	D69954-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
100-41-4	Ethylbenzene	ND		250	214	86	250	211	84	1	61-137/30

CAS No.	Surrogate Recoveries	MS	MSD	D69954-1	Limits
1868-53-7	Dibromofluoromethane	112%	111%	107%	72-133%
2037-26-5	Toluene-D8	105%	105%	105%	85-114%
460-00-4	4-Bromofluorobenzene	92%	91%	101%	70-134%

* = Outside of Control Limits.

Volatile Internal Standard Area Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSN3561-CC3519	Injection Date:	04/23/15
Lab File ID:	N96731.D	Injection Time:	09:02
Instrument ID:	GCMSN	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	502832	9.11	775076	9.98	480956	13.23	391453	15.78	304009	6.71
Upper Limit [a]	1005664	9.61	1550152	10.48	961912	13.73	782906	16.28	608018	7.21
Lower Limit [b]	251416	8.61	387538	9.48	240478	12.73	195727	15.28	152005	6.21
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSN3561-BS	502832	9.11	775076	9.98	480956	13.23	391453	15.78	304009	6.71
MSN3561-BSD	499239	9.11	765873	9.98	479157	13.23	384680	15.78	268397	6.70
MSN3561-MB	453015	9.11	693214	9.98	411601	13.23	297019	15.79	273117	6.75
ZZZZZZ	424720	9.11	652036	9.98	397762	13.23	290342	15.79	279768	6.74
ZZZZZZ	432246	9.12	657621	9.98	390873	13.23	271816	15.79	235370	6.74
MC37976-5	418590	9.12	631038	9.98	383903	13.23	269247	15.79	270291	6.74
MC37976-3	383994	9.11	591362	9.98	369805	13.23	284782	15.79	258700	6.73
MC37976-2	392597	9.11	607826	9.98	380682	13.23	279713	15.79	247192	6.74
ZZZZZZ	396651	9.11	604076	9.98	380815	13.23	293006	15.78	271112	6.73
ZZZZZZ	404573	9.11	607328	9.98	378282	13.23	279163	15.79	260614	6.72
ZZZZZZ	397797	9.12	601487	9.98	370437	13.23	261416	15.78	235584	6.74
MC37976-1	380443	9.11	583844	9.98	378738	13.23	292621	15.79	220216	6.74
ZZZZZZ	379788	9.11	586057	9.98	378821	13.23	269422	15.78	250128	6.74
ZZZZZZ	368953	9.11	561988	9.98	362854	13.23	255049	15.79	213016	6.74
ZZZZZZ	359006	9.11	560794	9.98	367425	13.23	300495	15.78	211635	6.73
ZZZZZZ	403962	9.11	633890	9.98	401691	13.23	305947	15.79	251535	6.71
ZZZZZZ	409425	9.11	620004	9.98	386867	13.23	286340	15.79	220352	6.72
ZZZZZZ	396502	9.11	624959	9.98	391083	13.23	281170	15.79	243276	6.72
ZZZZZZ	380115	9.11	628049	9.98	392650	13.23	299324	15.78	237528	6.74
MC37976-4	439337	9.11	684254	9.98	457544	13.23	393161	15.78	267237	6.73
MC37976-3MS	460625	9.11	730780	9.98	477306	13.23	383732	15.78	292597	6.70
MC37976-3MSD	486487	9.11	768291	9.98	501116	13.23	397613	15.79	281266	6.71

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

6.5.1

Volatile Internal Standard Area Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSN3563-CC3519	Injection Date:	04/24/15
Lab File ID:	N96784.D	Injection Time:	10:16
Instrument ID:	GCMSN	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	435765	9.11	690900	9.98	466288	13.23	383356	15.78	316654	6.71
Upper Limit [a]	871530	9.61	1381800	10.48	932576	13.73	766712	16.28	633308	7.21
Lower Limit [b]	217883	8.61	345450	9.48	233144	12.73	191678	15.28	158327	6.21
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSN3563-BS	435765	9.11	690900	9.98	466288	13.23	383356	15.78	316654	6.71
MSN3563-MB	399059	9.11	648351	9.98	421092	13.23	311339	15.79	228519	6.75
ZZZZZZ	388404	9.12	633962	9.98	406076	13.23	298133	15.79	245487	6.75
D69954-1	362784	9.11	588886	9.98	394770	13.23	291031	15.79	212101	6.74
ZZZZZZ	356134	9.11	576674	9.98	387457	13.23	310200	15.78	245357	6.72
ZZZZZZ	349591	9.12	579291	9.98	394327	13.23	311986	15.78	243165	6.74
ZZZZZZ	338435	9.11	549708	9.98	377363	13.23	286866	15.79	201980	6.73
ZZZZZZ	341559	9.11	561608	9.98	386428	13.23	297978	15.79	264278	6.73
ZZZZZZ	390063	9.11	641610	9.98	427016	13.23	343909	15.79	270937	6.73
ZZZZZZ	392047	9.11	632812	9.98	441839	13.23	400231	15.78	259977	6.73
ZZZZZZ	400628	9.11	671740	9.98	453614	13.23	364493	15.79	303473	6.73
D69954-1MS	409533	9.11	685925	9.98	474104	13.23	389576	15.78	259944	6.71
D69954-1MSD	408097	9.11	682716	9.98	486698	13.23	399824	15.78	300656	6.71
MC37976-4	415518	9.12	675107	9.98	448492	13.23	350254	15.79	299934	6.74

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

6.5.2

Volatile Surrogate Recovery Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8260C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC37976-1	N96744.D	106	103	96
MC37976-2	N96740.D	106	102	100
MC37976-3	N96739.D	108	102	99
MC37976-4	N96807.D	107	105	94
MC37976-4	N96752.D	104	101	89
MC37976-5	N96738.D	101	102	102
D69954-1MS	N96805.D	112	105	92
D69954-1MSD	N96806.D	111	105	91
MC37976-3MS	N96753.D	102	102	94
MC37976-3MSD	N96754.D	103	102	94
MSN3561-BS	N96731.D	99	99	90
MSN3561-BSD	N96732.D	98	100	92
MSN3561-MB	N96735.D	101	100	100
MSN3563-BS	N96784.D	106	104	91
MSN3563-MB	N96787.D	104	102	99

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	72-133%
S2 = Toluene-D8	85-114%
S3 = 4-Bromofluorobenzene	70-134%

6.6.1

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42704-MB	W21602.D	1	04/23/15	KD	04/16/15	OP42704	MSW924

The QC reported here applies to the following samples: Method: SW846 8270D

MC37976-1, MC37976-2, MC37976-3, MC37976-4

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.5	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.29	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.51	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.47	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.34	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.59	ug/l	
95-48-7	2-Methylphenol	ND	10	0.30	ug/l	
	3&4-Methylphenol	ND	10	0.44	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.47	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.35	ug/l	
108-95-2	Phenol	ND	5.0	0.32	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.45	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.45	ug/l	
62-53-3	Aniline	ND	10	0.46	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.25	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.24	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.32	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.34	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.49	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.42	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.42	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.26	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.37	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.38	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.53	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	0.31	5.0	0.27	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.0	0.29	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.27	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.24	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.32	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.24	ug/l	

Method Blank Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42704-MB	W21602.D	1	04/23/15	KD	04/16/15	OP42704	MSW924

The QC reported here applies to the following samples: Method: SW846 8270D

MC37976-1, MC37976-2, MC37976-3, MC37976-4

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.28	ug/l	
78-59-1	Isophorone	ND	5.0	0.47	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.36	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.40	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.51	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.48	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.25	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.25	ug/l	
110-86-1	Pyridine	ND	10	0.36	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	51%	10-79%
4165-62-2	Phenol-d5	36%	10-72%
118-79-6	2,4,6-Tribromophenol	95%	35-138%
4165-60-0	Nitrobenzene-d5	82%	30-116%
321-60-8	2-Fluorobiphenyl	74%	35-107%
1718-51-0	Terphenyl-d14	101%	43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

7.1.1

7

Method Blank Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42705-MB	I95274.D	1	04/23/15	MR	04/16/15	OP42705	MSI3564

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC37976-1, MC37976-2, MC37976-3, MC37976-4

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.0075	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.0084	ug/l	
120-12-7	Anthracene	ND	0.10	0.0098	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.015	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.019	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.013	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.0074	ug/l	
86-73-7	Fluorene	ND	0.10	0.015	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.020	ug/l	
90-12-0	1-Methylnaphthalene	0.037	2.0	0.012	ug/l	J
91-57-6	2-Methylnaphthalene	0.041	2.0	0.011	ug/l	J
85-01-8	Phenanthrene	ND	0.050	0.011	ug/l	
129-00-0	Pyrene	ND	0.10	0.0085	ug/l	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	81%	26-121%
321-60-8	2-Fluorobiphenyl	69%	28-107%
1718-51-0	Terphenyl-d14	99%	29-129%

Blank Spike Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42704-BS	W21603.D	1	04/23/15	KD	04/16/15	OP42704	MSW924

The QC reported here applies to the following samples: Method: SW846 8270D

MC37976-1, MC37976-2, MC37976-3, MC37976-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	50	15.6	31	10-73
95-57-8	2-Chlorophenol	50	38.2	76	47-106
59-50-7	4-Chloro-3-methyl phenol	50	44.9	90	50-111
120-83-2	2,4-Dichlorophenol	50	42.6	85	53-114
105-67-9	2,4-Dimethylphenol	50	39.5	79	23-110
51-28-5	2,4-Dinitrophenol	50	52.0	104	10-156
534-52-1	4,6-Dinitro-o-cresol	50	55.8	112	17-159
95-48-7	2-Methylphenol	50	33.5	67	40-92
	3&4-Methylphenol	100	67.7	68	38-86
88-75-5	2-Nitrophenol	50	44.4	89	53-115
100-02-7	4-Nitrophenol	50	20.9	42	10-83
87-86-5	Pentachlorophenol	50	42.8	86	41-122
108-95-2	Phenol	50	18.5	37	15-55
95-95-4	2,4,5-Trichlorophenol	50	49.0	98	52-120
88-06-2	2,4,6-Trichlorophenol	50	47.7	95	53-119
62-53-3	Aniline	50	24.1	48	26-87
101-55-3	4-Bromophenyl phenyl ether	50	48.3	97	65-127
85-68-7	Butyl benzyl phthalate	50	47.1	94	68-128
100-51-6	Benzyl Alcohol	50	35.6	71	13-108
91-58-7	2-Chloronaphthalene	50	43.5	87	58-120
106-47-8	4-Chloroaniline	50	39.9	80	48-106
111-91-1	bis(2-Chloroethoxy)methane	50	39.9	80	42-118
111-44-4	bis(2-Chloroethyl)ether	50	37.8	76	35-123
108-60-1	bis(2-Chloroisopropyl)ether	50	40.7	81	37-160
7005-72-3	4-Chlorophenyl phenyl ether	50	47.7	95	57-121
122-66-7	1,2-Diphenylhydrazine	50	41.7	83	54-128
121-14-2	2,4-Dinitrotoluene	50	53.1	106	64-127
606-20-2	2,6-Dinitrotoluene	50	49.1	98	55-135
91-94-1	3,3'-Dichlorobenzidine	50	56.0	112	49-141
132-64-9	Dibenzofuran	50	45.0	90	60-107
84-74-2	Di-n-butyl phthalate	50	46.8	94	68-117
117-84-0	Di-n-octyl phthalate	50	47.5	95	60-139
84-66-2	Diethyl phthalate	50	48.1	96	51-127
131-11-3	Dimethyl phthalate	50	47.9	96	22-147
117-81-7	bis(2-Ethylhexyl)phthalate	50	48.9	98	69-133
118-74-1	Hexachlorobenzene	50	49.0	98	62-131

* = Outside of Control Limits.

7.2.1

7

Blank Spike Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42704-BS	W21603.D	1	04/23/15	KD	04/16/15	OP42704	MSW924

The QC reported here applies to the following samples: Method: SW846 8270D

MC37976-1, MC37976-2, MC37976-3, MC37976-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	14.3	29	10-74
67-72-1	Hexachloroethane	50	31.4	63	15-104
78-59-1	Isophorone	50	35.8	72	44-110
88-74-4	2-Nitroaniline	50	50.4	101	63-123
99-09-2	3-Nitroaniline	50	46.6	93	63-112
100-01-6	4-Nitroaniline	50	48.8	98	58-114
98-95-3	Nitrobenzene	50	38.3	77	37-130
62-75-9	n-Nitrosodimethylamine	50	29.4	59	18-80
621-64-7	N-Nitroso-di-n-propylamine	50	39.0	78	44-128
86-30-6	N-Nitrosodiphenylamine	50	41.8	84	62-107
110-86-1	Pyridine	50	11.3	23	10-77

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	51%	10-79%
4165-62-2	Phenol-d5	36%	10-72%
118-79-6	2,4,6-Tribromophenol	103%	35-138%
4165-60-0	Nitrobenzene-d5	83%	30-116%
321-60-8	2-Fluorobiphenyl	78%	35-107%
1718-51-0	Terphenyl-d14	98%	43-135%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42705-BS	I95275.D	1	04/23/15	MR	04/16/15	OP42705	MSI3564

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC37976-1, MC37976-2, MC37976-3, MC37976-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	41.3	83	45-116
208-96-8	Acenaphthylene	50	38.8	78	34-110
120-12-7	Anthracene	50	43.6	87	50-117
56-55-3	Benzo(a)anthracene	50	50.7	101	55-139
50-32-8	Benzo(a)pyrene	50	52.8	106	48-131
205-99-2	Benzo(b)fluoranthene	50	49.0	98	49-141
191-24-2	Benzo(g,h,i)perylene	50	55.0	110	60-130
207-08-9	Benzo(k)fluoranthene	50	44.2	88	49-133
218-01-9	Chrysene	50	46.6	93	52-128
53-70-3	Dibenzo(a,h)anthracene	50	53.6	107	60-136
206-44-0	Fluoranthene	50	44.0	88	46-132
86-73-7	Fluorene	50	44.4	89	53-120
193-39-5	Indeno(1,2,3-cd)pyrene	50	55.1	110	57-134
90-12-0	1-Methylnaphthalene	50	38.0	76	41-105
91-57-6	2-Methylnaphthalene	50	38.1	76	36-111
85-01-8	Phenanthrene	50	42.9	86	50-120
129-00-0	Pyrene	50	43.7	87	48-127

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	82%	26-121%
321-60-8	2-Fluorobiphenyl	73%	28-107%
1718-51-0	Terphenyl-d14	98%	29-129%

* = Outside of Control Limits.

7.2.2

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42704-MS	W21604.D	1	04/23/15	KD	04/16/15	OP42704	MSW924
OP42704-MSD	W21605.D	1	04/23/15	KD	04/16/15	OP42704	MSW924
MC37976-3	W21606.D	1	04/23/15	KD	04/16/15	OP42704	MSW924

The QC reported here applies to the following samples: Method: SW846 8270D

MC37976-1, MC37976-2, MC37976-3, MC37976-4

7.3.1

7

CAS No.	Compound	MC37976-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		51.5	17.8	35	52.1	19.1	37	7	10-76/20
95-57-8	2-Chlorophenol	ND		51.5	41.4	80	52.1	43.1	83	4	37-112/20
59-50-7	4-Chloro-3-methyl phenol	ND		51.5	49.5	96	52.1	51.2	98	3	43-115/20
120-83-2	2,4-Dichlorophenol	ND		51.5	47.6	92	52.1	50.1	96	5	47-119/20
105-67-9	2,4-Dimethylphenol	ND		51.5	46.1	89	52.1	48.1	92	4	15-118/20
51-28-5	2,4-Dinitrophenol	ND		51.5	60.2	117	52.1	64.2	123	6	10-165/20
534-52-1	4,6-Dinitro-o-cresol	ND		51.5	61.0	118	52.1	64.4	124	5	13-165/20
95-48-7	2-Methylphenol	ND		51.5	36.9	72	52.1	38.1	73	3	30-99/20
	3&4-Methylphenol	ND		103	73.7	71	104	76.0	73	3	32-89/20
88-75-5	2-Nitrophenol	ND		51.5	48.6	94	52.1	51.5	99	6	44-120/20
100-02-7	4-Nitrophenol	ND		51.5	23.4	45	52.1	24.5	47	5	10-93/20
87-86-5	Pentachlorophenol	ND		51.5	52.6	102	52.1	53.8	103	2	33-131/20
108-95-2	Phenol	ND		51.5	19.7	38	52.1	20.6	40	4	15-53/20
95-95-4	2,4,5-Trichlorophenol	ND		51.5	53.1	103	52.1	54.6	105	3	45-126/20
88-06-2	2,4,6-Trichlorophenol	ND		51.5	52.1	101	52.1	55.2	106	6	45-124/20
62-53-3	Aniline	ND		51.5	26.2	51	52.1	21.1	41	22* a	18-91/20
101-55-3	4-Bromophenyl phenyl ether	ND		51.5	52.8	102	52.1	52.7	101	0	57-131/20
85-68-7	Butyl benzyl phthalate	ND		51.5	50.7	98	52.1	52.4	101	3	58-135/20
100-51-6	Benzyl Alcohol	ND		51.5	39.5	77	52.1	40.8	78	3	10-109/20
91-58-7	2-Chloronaphthalene	ND		51.5	48.3	94	52.1	50.5	97	4	51-123/20
106-47-8	4-Chloroaniline	ND		51.5	41.0	80	52.1	40.5	78	1	39-109/20
111-91-1	bis(2-Chloroethoxy)methane	ND		51.5	44.8	87	52.1	45.8	88	2	36-120/20
111-44-4	bis(2-Chloroethyl)ether	ND		51.5	42.1	82	52.1	43.1	83	2	30-124/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		51.5	46.3	90	52.1	48.2	93	4	25-171/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		51.5	51.9	101	52.1	53.3	102	3	51-122/20
122-66-7	1,2-Diphenylhydrazine	ND		51.5	45.1	87	52.1	45.6	88	1	47-130/20
121-14-2	2,4-Dinitrotoluene	ND		51.5	56.8	110	52.1	58.5	112	3	57-131/20
606-20-2	2,6-Dinitrotoluene	ND		51.5	53.6	104	52.1	54.6	105	2	52-135/20
91-94-1	3,3'-Dichlorobenzidine	ND		51.5	12.0	23* b	52.1	7.8	15* b	42* a	25-157/20
132-64-9	Dibenzofuran	ND		51.5	49.5	96	52.1	50.8	98	3	54-110/20
84-74-2	Di-n-butyl phthalate	ND		51.5	51.5	100	52.1	52.8	101	2	60-122/20
117-84-0	Di-n-octyl phthalate	ND		51.5	51.0	99	52.1	52.4	101	3	54-142/20
84-66-2	Diethyl phthalate	ND		51.5	51.8	100	52.1	53.6	103	3	40-132/20
131-11-3	Dimethyl phthalate	ND		51.5	51.3	100	52.1	52.9	102	3	13-149/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		51.5	53.3	103	52.1	54.9	105	3	59-139/20
118-74-1	Hexachlorobenzene	ND		51.5	53.7	104	52.1	53.7	103	0	56-135/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42704-MS	W21604.D	1	04/23/15	KD	04/16/15	OP42704	MSW924
OP42704-MSD	W21605.D	1	04/23/15	KD	04/16/15	OP42704	MSW924
MC37976-3	W21606.D	1	04/23/15	KD	04/16/15	OP42704	MSW924

The QC reported here applies to the following samples: Method: SW846 8270D

MC37976-1, MC37976-2, MC37976-3, MC37976-4

7.3.1

7

CAS No.	Compound	MC37976-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		51.5	17.4	34	52.1	18.3	35	5	10-73/20
67-72-1	Hexachloroethane	ND		51.5	36.7	71	52.1	36.5	70	1	13-103/20
78-59-1	Isophorone	ND		51.5	40.1	78	52.1	41.0	79	2	41-110/20
88-74-4	2-Nitroaniline	ND		51.5	55.1	107	52.1	57.1	110	4	57-126/20
99-09-2	3-Nitroaniline	ND		51.5	44.1	86	52.1	46.9	90	6	53-118/20
100-01-6	4-Nitroaniline	ND		51.5	50.3	98	52.1	52.5	101	4	50-119/20
98-95-3	Nitrobenzene	ND		51.5	43.4	84	52.1	44.2	85	2	35-127/20
62-75-9	n-Nitrosodimethylamine	ND		51.5	31.9	62	52.1	33.8	65	6	11-82/20
621-64-7	N-Nitroso-di-n-propylamine	ND		51.5	44.7	87	52.1	45.4	87	2	39-129/20
86-30-6	N-Nitrosodiphenylamine	ND		51.5	46.0	89	52.1	46.6	89	1	55-112/20
110-86-1	Pyridine	ND		51.5	13.1	25	52.1	8.5	16	43* a	15-71/20

CAS No.	Surrogate Recoveries	MS	MSD	MC37976-3	Limits
367-12-4	2-Fluorophenol	52%	52%	50%	10-79%
4165-62-2	Phenol-d5	35%	36%	33%	10-72%
118-79-6	2,4,6-Tribromophenol	109%	108%	102%	36-138%
4165-60-0	Nitrobenzene-d5	87%	93%	88%	30-116%
321-60-8	2-Fluorobiphenyl	80%	81%	61%	35-107%
1718-51-0	Terphenyl-d14	101%	104%	103%	43-135%

(a) High RPD due to possible matrix interference and/or sample non-homogeneity.
(b) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42705-MS	I95276.D	1	04/23/15	MR	04/16/15	OP42705	MSI3564
OP42705-MSD	I95277.D	1	04/23/15	MR	04/16/15	OP42705	MSI3564
MC37976-3	I95278.D	1	04/23/15	MR	04/16/15	OP42705	MSI3564

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC37976-1, MC37976-2, MC37976-3, MC37976-4

7.3.2

7

CAS No.	Compound	MC37976-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	0.073	J	51.5	44.3	86	52.1	44.9	86	1	36-124/20
208-96-8	Acenaphthylene	ND		51.5	41.4	80	52.1	42.7	82	3	25-116/20
120-12-7	Anthracene	ND		51.5	47.1	91	52.1	47.6	91	1	42-122/20
56-55-3	Benzo(a)anthracene	ND		51.5	54.9	107	52.1	56.2	108	2	45-145/20
50-32-8	Benzo(a)pyrene	ND		51.5	56.7	110	52.1	57.9	111	2	40-136/20
205-99-2	Benzo(b)fluoranthene	ND		51.5	56.8	110	52.1	56.7	109	0	41-148/20
191-24-2	Benzo(g,h,i)perylene	ND		51.5	55.4	107	52.1	56.9	109	3	48-140/20
207-08-9	Benzo(k)fluoranthene	ND		51.5	45.1	87	52.1	47.0	90	4	45-131/20
218-01-9	Chrysene	ND		51.5	49.5	96	52.1	50.5	97	2	41-135/20
53-70-3	Dibenzo(a,h)anthracene	ND		51.5	55.0	107	52.1	56.8	109	3	49-144/20
206-44-0	Fluoranthene	ND		51.5	48.1	93	52.1	49.2	94	2	38-136/20
86-73-7	Fluorene	ND		51.5	46.5	90	52.1	47.2	91	1	43-127/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		51.5	56.5	110	52.1	58.1	112	3	45-142/20
90-12-0	1-Methylnaphthalene	0.099	JB	51.5	41.9	81	52.1	43.3	83	3	29-116/20
91-57-6	2-Methylnaphthalene	0.031	JB	51.5	42.3	82	52.1	43.9	84	4	27-117/20
85-01-8	Phenanthrene	ND		51.5	44.6	87	52.1	46.7	90	5	41-126/20
129-00-0	Pyrene	ND		51.5	47.8	93	52.1	48.8	94	2	41-131/20

CAS No.	Surrogate Recoveries	MS	MSD	MC37976-3	Limits
4165-60-0	Nitrobenzene-d5	87%	91%	84%	26-121%
321-60-8	2-Fluorobiphenyl	75%	76%	57%	28-107%
1718-51-0	Terphenyl-d14	104%	106%	103%	29-129%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3564-CC3561	Injection Date:	04/23/15
Lab File ID:	I95265.D	Injection Time:	08:23
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	239757	3.57	502395	4.60	291507	6.12	518482	7.43	403684	10.20	1081059	11.63
Upper Limit [a]	479514	4.07	1004790	5.10	583014	6.62	1036964	7.93	807368	10.70	2162118	12.13
Lower Limit [b]	119879	3.07	251198	4.10	145754	5.62	259241	6.93	201842	9.70	540530	11.13
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP42731-MB	231092	3.56	492621	4.60	284181	6.12	513274	7.43	392143	10.20	1046511	11.63
OP42731-BS	242479	3.57	531934	4.61	304611	6.12	563015	7.43	433344	10.21	1116322	11.63
OP42731-MS	233437	3.57	511325	4.61	293127	6.12	542941	7.43	413974	10.21	1023453	11.63
OP42731-MSD	259752	3.57	560701	4.61	319624	6.12	588280	7.43	441546	10.21	1143725	11.63
MC38000-11	233005	3.56	500244	4.60	292584	6.12	524373	7.43	407568	10.20	1083926	11.63
ZZZZZZ	239866	3.56	510191	4.60	293586	6.12	513843	7.43	413461	10.20	1106197	11.63
ZZZZZZ	212969	3.56	451349	4.60	261764	6.12	470151	7.43	379770	10.20	1032559	11.63
ZZZZZZ	261135	3.57	545440	4.60	313106	6.12	552676	7.43	408465	10.20	1069353	11.63
OP42705-MB	184067	3.56	406414	4.60	245365	6.12	456398	7.42	370264	10.20	1021040	11.63
OP42705-BS	191059	3.56	434556	4.60	254109	6.12	493952	7.43	403794	10.20	1077613	11.63
OP42705-MS	273580	3.57	597600	4.61	335589	6.12	618115	7.44	469703	10.21	1180468	11.64
OP42705-MSD	251316	3.57	545243	4.61	311493	6.12	569585	7.44	438832	10.21	1119817	11.64
MC37976-3	246108	3.57	525610	4.60	303172	6.12	551155	7.43	432846	10.20	1125703	11.64
MC37976-1	237200	3.57	510658	4.60	298318	6.12	532517	7.43	418899	10.20	1095316	11.63
MC37976-2	218068	3.56	469129	4.60	278281	6.12	504109	7.43	411987	10.20	1107447	11.63
MC37976-4	210228	3.57	450783	4.60	271460	6.12	499818	7.43	406583	10.20	1098419	11.63
ZZZZZZ	204619	3.56	436770	4.60	263307	6.12	494118	7.43	401397	10.20	1098361	11.63
ZZZZZZ	205491	3.56	438008	4.60	265117	6.12	488522	7.43	400792	10.20	1078044	11.63
ZZZZZZ	217605	3.56	462914	4.60	278286	6.12	514670	7.43	412774	10.20	1043398	11.63
ZZZZZZ	216748	3.56	460246	4.60	279161	6.12	518904	7.43	413324	10.20	1118359	11.63
ZZZZZZ	231702	3.56	499551	4.60	293437	6.12	516567	7.43	413740	10.20	1094590	11.63
ZZZZZZ	247934	3.56	533852	4.60	313369	6.12	509397	7.43	437440	10.20	1159648	11.63
ZZZZZZ	247170	3.56	516784	4.60	304171	6.12	499856	7.43	425782	10.20	1131609	11.63
ZZZZZZ	249578	3.56	524135	4.60	313317	6.12	507765	7.43	439595	10.20	1171693	11.63
ZZZZZZ	245594	3.56	513616	4.60	307605	6.12	531641	7.43	433896	10.20	1152524	11.63
ZZZZZZ	254108	3.56	536906	4.60	317405	6.12	560271	7.43	449774	10.20	1181350	11.63
ZZZZZZ	244037	3.56	520800	4.60	307121	6.12	516051	7.43	427357	10.20	1147582	11.63
ZZZZZZ	258263	3.56	553035	4.60	324362	6.12	527273	7.43	454277	10.20	1206653	11.63

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

7.4.1

Semivolatile Internal Standard Area Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3564-CC3561	Injection Date:	04/23/15
Lab File ID:	I95265.D	Injection Time:	08:23
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.4.1

Semivolatile Internal Standard Area Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW924-CC902	Injection Date:	04/23/15
Lab File ID:	W21601.D	Injection Time:	08:18
Instrument ID:	GCMSW	Method:	SW846 8270D

	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT
Check Std	288631	5.11	1101889	6.22	637784	7.76	1145647	9.05	1197242	11.60	1188230	13.28
Upper Limit [a]	577262	5.61	2203778	6.72	1275568	8.26	2291294	9.55	2394484	12.10	2376460	13.78
Lower Limit [b]	144316	4.61	550945	5.72	318892	7.26	572824	8.55	598621	11.10	594115	12.78
Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT
OP42704-MB	260192	5.10	982938	6.21	594634	7.76	1011224	9.05	1095299	11.59	1126318	13.28
OP42704-BS	283154	5.11	1058870	6.21	624535	7.76	1099492	9.05	1192747	11.59	1199863	13.28
OP42704-MS	262293	5.11	990720	6.21	590453	7.76	1029688	9.05	1123991	11.59	1159740	13.28
OP42704-MSD	246887	5.11	932208	6.21	552500	7.76	977904	9.05	1073031	11.59	1109774	13.28
MC37976-3	266963	5.10	1009476	6.21	611045	7.76	1032437	9.05	1082882	11.59	1092726	13.28
MC37976-1	271506	5.10	1009337	6.21	613894	7.76	1042079	9.05	1083546	11.59	1077874	13.28
MC37976-2	263147	5.10	1003811	6.21	600297	7.76	1055076	9.05	1156585	11.59	1208242	13.28
MC37976-4	262968	5.11	976377	6.21	603878	7.76	1045982	9.05	1166068	11.59	1204171	13.28
OP42730-MB	255550	5.10	965337	6.21	585775	7.76	1021983	9.05	1115788	11.59	1140718	13.28
OP42730-BS	273488	5.11	1022883	6.21	610698	7.76	1074163	9.05	1171570	11.59	1194858	13.28
OP42730-MS	300568	5.11	1130785	6.21	654560	7.76	1140391	9.05	1160911	11.59	1117432	13.28
OP42730-MSD	310140	5.11	1151589	6.21	663105	7.76	1132453	9.05	1176208	11.59	1162243	13.28
MC38000-10	273457	5.10	1040495	6.21	622558	7.76	1090143	9.05	1179181	11.59	1201203	13.28
ZZZZZZ	295944	5.10	1095184	6.21	647842	7.76	1106838	9.05	1166456	11.59	1161886	13.28
ZZZZZZ	330910	5.11	1326840	6.63	676889	7.76	1214209	9.05	1227373	11.59	1194959	13.28
ZZZZZZ	279076	5.10	1048982	6.21	624343	7.76	1077041	9.05	1156746	11.59	1165049	13.28
ZZZZZZ	269900	5.10	1020838	6.21	618569	7.76	1056845	9.05	1153791	11.59	1184731	13.28
ZZZZZZ	265704	5.10	991351	6.21	610580	7.76	1048247	9.05	1132389	11.59	1163368	13.28
ZZZZZZ	319778	5.11	1163882	6.21	705119	7.76	1152388	9.05	1150823	11.59	1152219	13.28
ZZZZZZ	281762	5.10	1064686	6.21	644048	7.76	1112210	9.05	1196158	11.59	1219802	13.28
ZZZZZZ	282681	5.11	1036953	6.21	637744	7.76	1096873	9.05	1196391	11.59	1209712	13.28
ZZZZZZ	325634	5.11	1190736	6.21	721770	7.76	1212024	9.05	1211602	11.59	1196915	13.28
ZZZZZZ	244780	5.10	928330	6.21	558473	7.76	984291	9.05	1064634	11.59	1098966	13.28
ZZZZZZ	266622	5.10	1011794	6.21	613870	7.76	1072981	9.05	1155589	11.59	1173009	13.27
ZZZZZZ	264456	5.10	980236	6.21	596159	7.76	1026221	9.04	1149097	11.59	1162378	13.27
ZZZZZZ	267619	5.10	991995	6.21	607589	7.76	1065269	9.05	1154980	11.59	1182085	13.27
ZZZZZZ	291502	5.11	1054337	6.21	647080	7.76	1072361	9.05	1126244	11.59	1107666	13.27

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

7.4.2

7

Semivolatile Internal Standard Area Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW924-CC902	Injection Date:	04/23/15
Lab File ID:	W21601.D	Injection Time:	08:18
Instrument ID:	GCMSW	Method:	SW846 8270D

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.4.2

7

Semivolatile Surrogate Recovery Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8270D Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC37976-1	W21607.D	44	31	105	77	67	102
MC37976-2	W21608.D	43	29	101	78	63	100
MC37976-3	W21606.D	50	33	102	88	61	103
MC37976-4	W21609.D	51	34	106	82	71	100
OP42704-BS	W21603.D	51	36	103	83	78	98
OP42704-MB	W21602.D	51	36	95	82	74	101
OP42704-MS	W21604.D	52	35	109	87	80	101
OP42704-MSD	W21605.D	52	36	108	93	81	104

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	10-79%
S2 = Phenol-d5	10-72%
S3 = 2,4,6-Tribromophenol	35-138%
S4 = Nitrobenzene-d5	30-116%
S5 = 2-Fluorobiphenyl	35-107%
S6 = Terphenyl-d14	43-135%

7.5.1

Semivolatile Surrogate Recovery Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8270D BY SIM Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC37976-1	I95279.D	81	63	104
MC37976-2	I95280.D	72	59	103
MC37976-3	I95278.D	84	57	103
MC37976-4	I95281.D	81	66	103
OP42705-BS	I95275.D	82	73	98
OP42705-MB	I95274.D	81	69	99
OP42705-MS	I95276.D	87	75	104
OP42705-MSD	I95277.D	91	76	106

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	26-121%
S2 = 2-Fluorobiphenyl	28-107%
S3 = Terphenyl-d14	29-129%

7.5.2

7

New England ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

8

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries

Method Blank Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42706-MB	BB62824.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420

The QC reported here applies to the following samples: Method: SW846 8011

MC37976-1, MC37976-2, MC37976-3, MC37976-4, MC37976-6

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.0061	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.0061	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	Bromofluorobenzene (S)	138%	60-140%
460-00-4	Bromofluorobenzene (S)	135%	60-140%

8.1.1

Blank Spike Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42706-BS	BB62825.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420

The QC reported here applies to the following samples: Method: SW846 8011

MC37976-1, MC37976-2, MC37976-3, MC37976-4, MC37976-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.078	110	45-149
106-93-4	1,2-Dibromoethane	0.071	0.082	115	51-149

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	109%	60-140%
460-00-4	Bromofluorobenzene (S)	103%	60-140%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42706-MS	BB62826.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420
OP42706-MSD	BB62827.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420
MC37976-3	BB62828.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420

The QC reported here applies to the following samples: Method: SW846 8011

MC37976-1, MC37976-2, MC37976-3, MC37976-4, MC37976-6

CAS No.	Compound	MC37976-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	ND		0.0672	0.078	116	0.0681	0.077	113	1	31-169/30
106-93-4	1,2-Dibromoethane	ND		0.0672	0.058	86	0.0681	0.061	90	5	34-175/30

CAS No.	Surrogate Recoveries	MS	MSD	MC37976-3	Limits
460-00-4	Bromofluorobenzene (S)	100%	102%	112%	60-140%
460-00-4	Bromofluorobenzene (S)	115%	115%	128%	60-140%

8.3.1

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8011 Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
MC37976-1	BB62829.D	92	97
MC37976-2	BB62830.D	103	106
MC37976-3	BB62828.D	112	128
MC37976-4	BB62831.D	106	112
MC37976-6	BB62832.D	113	119
OP42706-BS	BB62825.D	109	103
OP42706-MB	BB62824.D	138	135
OP42706-MS	BB62826.D	100	115
OP42706-MSD	BB62827.D	102	115

Surrogate Compounds	Recovery Limits
S1 = Bromofluorobenzene (S)	60-140%

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

8.4.1

GC Surrogate Retention Time Summary

Job Number: MC37976
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBB3420-CC3420	Injection Date:	04/18/15
Lab File ID:	BB62822.D	Injection Time:	02:18
Instrument ID:	GCBB	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	6.89	7.25

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	BB62823.D	04/18/15	02:48	6.88	7.25
OP42706-MB	BB62824.D	04/18/15	03:17	6.88	7.25
OP42706-BS	BB62825.D	04/18/15	03:46	6.88	7.25
OP42706-MS	BB62826.D	04/18/15	04:16	6.88	7.25
OP42706-MSD	BB62827.D	04/18/15	04:45	6.88	7.25
MC37976-3	BB62828.D	04/18/15	05:14	6.88	7.25
MC37976-1	BB62829.D	04/18/15	05:43	6.88	7.25
MC37976-2	BB62830.D	04/18/15	06:11	6.88	7.25
MC37976-4	BB62831.D	04/18/15	06:39	6.88	7.25
MC37976-6	BB62832.D	04/18/15	07:07	6.88	7.25

Surrogate Compounds

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.5.1

Roxana Groundwater Quarterly – 2nd Quarter 2015 Data Review

Laboratory SDG: MC38001

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 5/7/2015

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2014

Sample Identification	Sample Identification
MW28-ROX-041415	MW22-ROX-041415
MW13-ROX-041415	MW14-ROX-041415
P66-ROX-041415	P66-ROX-041415-Dup
TB-ROX-041415-HCL	TB-ROX-041415-ST

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 the surrogate recovery for bromofluorobenzene was outside evaluation criteria in samples MW22-ROX-041415 and P66-ROX-041415-Dup. 2-Chloroethyl vinyl ether MS/MSD recoveries were outside evaluation criteria in sample MW13-ROX-041415. Tert butyl alcohol-d_9 internal standard area recovery was outside criteria in sample MW22-ROX-041415. Sample MW22-ROX-041415 was diluted due to high levels of VOCs. These issues are addressed further in the appropriate sections below. Additionally, the initial calibration verification for 2-hexanone and hexachlorocyclopentadiene exceeded 30 percent difference (%D).

The cooler receipt form indicated that one of one cooler was received by the laboratory at a temperature of 0.3°C, which is outside the 4ºC ± 2ºC criteria. Samples were received in good condition; therefore, no qualification of data was required.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

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

No

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

Yes

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW22-ROX-041415	VOCs by 8011	Bromofluorobenzene	**143**	60-140
P66-ROX-041415-Dup	VOCs by 8011	Bromofluorobenzene	**157**	60-140

Analytical data reported as non-detect and associated with surrogate recoveries above evaluation criteria, indicating a possible high bias, did 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 MW13-ROX-041415 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
MW13-ROX-041415	VOCs	2-Chloroethyl vinyl ether	**0/0**	NA	10-200/30

LCS/LCSD recoveries were within evaluation criteria; no further 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	IS Criteria
MW22-ROX-041415	VOCs	Tert butyl alcohol-d_9	**192477**	34645-138580

There were no target analytes associated with tert butyl alcohol-d_9; therefore, no qualification of data was required based on tert butyl alcohol-d_9.

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
P66-ROX-041415	P66-ROX-041415-Dup

Were field duplicates within evaluation criteria?

Yes

11.0 Sample Dilutions

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

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

No

New England ACCUTEST LABORATORIES

05/07/15

Technical Report for

Shell Oil

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana,

Accutest Job Number: MC38001

Sampling Date: 04/14/15

Report to:

AECOM, INC.

Melissa.mansker@urs.com

ATTN: Melissa Mansker

Total number of pages in report: **108**

Reviewed on 5/7/15

Reza Tand
Lab Director

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

Sections: 1 2 3 4 5 6 7 8

Table of Contents

Section 1: Sample Summary **3**
Section 2: Case Narrative/Conformance Summary **4**
Section 3: Summary of Hits 6
Section 4: Sample Results **9**
4.1: MC38001-1: MW28-ROX-041415 10
4.2: MC38001-2: MW22-ROX-041415 17
4.3: MC38001-3: MW13-ROX-041415 24
4.4: MC38001-4: MW14-ROX-041415 31
4.5: MC38001-5: P66-ROX-041415 38
4.6: MC38001-6: P66-ROX-041415-DUP 45
4.7: MC38001-7: TB-ROX-041415-HCL 52
4.8: MC38001-8: TB-ROX-041415-ST 55
Section 5: Misc. Forms **56**
5.1: Chain of Custody 57
5.2: Sample Tracking Chronicle 59
5.3: Internal Chain of Custody 61
Section 6: GC/MS Volatiles - QC Data Summaries **63**
6.1: Method Blank Summary 64
6.2: Blank Spike Summary 70
6.3: Matrix Spike/Matrix Spike Duplicate Summary 76
6.4: Internal Standard Area Summaries 82
6.5: Surrogate Recovery Summaries 84
Section 7: GC/MS Semi-volatiles - QC Data Summaries **85**
7.1: Method Blank Summary 86
7.2: Blank Spike Summary 89
7.3: Matrix Spike/Matrix Spike Duplicate Summary 92
7.4: Internal Standard Area Summaries 95
7.5: Surrogate Recovery Summaries 100
Section 8: GC Volatiles - QC Data Summaries **102**
8.1: Method Blank Summary 103
8.2: Blank Spike Summary 104
8.3: Matrix Spike/Matrix Spike Duplicate Summary 105
8.4: Surrogate Recovery Summaries 106
8.5: GC Surrogate Retention Time Summaries 107

Accutest LabLink@157663 12:18 07-May-2015

Sample Summary

Shell Oil

Job No: MC38001

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
MC38001-1	04/14/15	10:00	DCES	04/15/15	AQ	Ground Water	MW28-ROX-041415
MC38001-2	04/14/15	11:10	DCES	04/15/15	AQ	Ground Water	MW22-ROX-041415
MC38001-3	04/14/15	14:55	DCES	04/15/15	AQ	Ground Water	MW13-ROX-041415
MC38001-4	04/14/15	16:00	DCES	04/15/15	AQ	Ground Water	MW14-ROX-041415
MC38001-5	04/14/15	16:40	DCES	04/15/15	AQ	Ground Water	P66-ROX-041415
MC38001-6	04/14/15	16:40	DCES	04/15/15	AQ	Ground Water	P66-ROX-041415-DUP
MC38001-7	04/14/15	00:00	DCES	04/15/15	AQ	Trip Blank Water	TB-ROX-041415-HCL
MC38001-8	04/14/15	00:00	DCES	04/15/15	AQ	Trip Blank Water	TB-ROX-041415-ST

ACCUTEST LABORATORIES

2

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	MC38001
Site:	URSMOSTL;Roxana 2Q15 GW/ 21563720.03002 900 South Central	**Report Date**	4/29/2015 4:30:15 PM

6 Sample(s), 2 Trip Blank(s) and 0 Field Blank(s) were collected on 04/14/2015 and were received at Accutest on 04/15/2015 properly preserved, at 0.3 Deg. C and intact. These Samples received an Accutest job number of MC38001. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report. 1-Chlorohexane, Benzenethiol, Dibenz(a,h)acridine, Indene, and Quinoline were searched in the library search and reported only if detections were found.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix: AQ	Batch ID: MSV1385

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC37996-5MS, MC37996-5MSD were used as the QC samples indicated.
- MC37996-5MS/MSD for 2-Chloroethyl vinyl ether are outside control limits due to possible matrix interference. Refer to Blank Spike.
- MC38001-2 has internal standard recovery(s) outside control limits. Target analytes not associated with this internal standard.
- Initial calibration verification standard MSV1332-ICV1332 for 2-hexanone exceed 30% Difference (response biased high). Associated samples are non-detect for these compounds.

Matrix: AQ	Batch ID: MSV1387

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC38001-3MS, MC38001-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- MC38001-3MS/MSD for 2-Chloroethyl vinyl ether are outside control limits due to possible matrix interference. Refer to Blank Spike.

Extractables by GCMS By Method SW846 8270D

Matrix: AQ	Batch ID: OP42730

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC38000-10MS, MC38000-10MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- RPD(s) for OP42730-MSD for 3,3'-Dichlorobenzidine, 4-Chloroaniline, Aniline, Pyridine are outside control limits. High RPD due to possible matrix interference and/or sample non-homogeneity.
- Initial calibration verification MSW902-ICV902 for Hexachlorocyclopentadiene exceeds 30% Difference. Hexachlorocyclopentadiene is within criteria in continuing calibration check MSW924-CC902.

Extractables by GCMS By Method SW846 8270D BY SIM

Matrix: AQ	Batch ID: OP42731

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC38000-11MS, MC38000-11MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8011

Matrix: AQ	Batch ID: OP42706

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC37976-3MS, MC37976-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- MC38001-2, -6 for Bromofluorobenzene (S); Outside control limits,Sample non-detect for target analaytes.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC38001).

Summary of Hits

Job Number: MC38001
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Collected: 04/14/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC38001-1	MW28-ROX-041415					
Benzene		18.9	0.50	0.27	ug/l	SW846 8260C
o-Xylene		0.42 J	1.0	0.22	ug/l	SW846 8260C
Xylene (total)		0.42 J	1.0	0.22	ug/l	SW846 8260C
Benzo(a)pyrene		0.027 J	0.11	0.017	ug/l	SW846 8270D BY SIM
Benzo(b)fluoranthene		0.060	0.057	0.022	ug/l	SW846 8270D BY SIM
Benzo(g,h,i)perylene		0.040 J	0.11	0.014	ug/l	SW846 8270D BY SIM
Benzo(k)fluoranthene		0.020 J	0.11	0.011	ug/l	SW846 8270D BY SIM
Indeno(1,2,3-cd)pyrene		0.035 J	0.11	0.023	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		0.24 J	2.3	0.014	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		0.037 J	2.3	0.012	ug/l	SW846 8270D BY SIM
MC38001-2	MW22-ROX-041415					
Benzene		1620	25	14	ug/l	SW846 8260C
n-Butylbenzene		11.2	5.0	0.50	ug/l	SW846 8260C
sec-Butylbenzene		10.5	5.0	0.50	ug/l	SW846 8260C
tert-Butylbenzene		12.3	5.0	0.57	ug/l	SW846 8260C
Ethylbenzene		3050	50	12	ug/l	SW846 8260C
Isopropylbenzene		124	5.0	0.27	ug/l	SW846 8260C
p-Isopropyltoluene		7.8	5.0	0.32	ug/l	SW846 8260C
Naphthalene		315	5.0	2.0	ug/l	SW846 8260C
n-Propylbenzene		219	5.0	0.29	ug/l	SW846 8260C
Toluene		4300	50	15	ug/l	SW846 8260C
1,2,4-Trimethylbenzene		1040	250	14	ug/l	SW846 8260C
1,3,5-Trimethylbenzene		321	5.0	0.20	ug/l	SW846 8260C
m,p-Xylene		6260	50	23	ug/l	SW846 8260C
o-Xylene		3090	50	11	ug/l	SW846 8260C
Xylene (total)		9350	50	11	ug/l	SW846 8260C
2,4-Dimethylphenol		14.3	10	0.35	ug/l	SW846 8270D
3&4-Methylphenol		20.1	10	0.46	ug/l	SW846 8270D
Phenol		10.8	5.2	0.33	ug/l	SW846 8270D
Acenaphthene		0.14	0.10	0.0077	ug/l	SW846 8270D BY SIM
Anthracene		0.027 J	0.10	0.010	ug/l	SW846 8270D BY SIM
Fluoranthene		0.016 J	0.10	0.0076	ug/l	SW846 8270D BY SIM
Fluorene		0.21	0.10	0.016	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		24.0	2.1	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		39.7	2.1	0.011	ug/l	SW846 8270D BY SIM
Phenanthrene		0.13	0.052	0.011	ug/l	SW846 8270D BY SIM
Pyrene		0.020 J	0.10	0.0088	ug/l	SW846 8270D BY SIM
Total TIC, Semi-Volatile		47 J			ug/l	

Summary of Hits

Job Number: MC38001
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Collected: 04/14/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC38001-3	MW13-ROX-041415					
Ethylbenzene		0.33 J	1.0	0.24	ug/l	SW846 8260C
Methyl Tert Butyl Ether		7.5	1.0	0.35	ug/l	SW846 8260C
Toluene		0.35 J	1.0	0.29	ug/l	SW846 8260C
m,p-Xylene		0.57 J	1.0	0.47	ug/l	SW846 8260C
o-Xylene		0.24 J	1.0	0.22	ug/l	SW846 8260C
Xylene (total)		0.82 J	1.0	0.22	ug/l	SW846 8260C
2,4-Dimethylphenol		1.3 J	11	0.38	ug/l	SW846 8270D
Acenaphthylene		0.075 J	0.11	0.0093	ug/l	SW846 8270D BY SIM
Anthracene		0.051 J	0.11	0.011	ug/l	SW846 8270D BY SIM
Fluoranthene		0.025 J	0.11	0.0082	ug/l	SW846 8270D BY SIM
Fluorene		0.066 J	0.11	0.017	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		0.029 J	2.2	0.014	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		0.055 J	2.2	0.012	ug/l	SW846 8270D BY SIM
Phenanthrene		0.070	0.056	0.012	ug/l	SW846 8270D BY SIM
Pyrene		0.023 J	0.11	0.0094	ug/l	SW846 8270D BY SIM
MC38001-4	MW14-ROX-041415					
Acenaphthene		0.26	0.11	0.0082	ug/l	SW846 8270D BY SIM
Acenaphthylene		0.057 J	0.11	0.0091	ug/l	SW846 8270D BY SIM
Anthracene		0.030 J	0.11	0.011	ug/l	SW846 8270D BY SIM
Fluorene		0.17	0.11	0.016	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		0.070 J	2.2	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		0.018 J	2.2	0.012	ug/l	SW846 8270D BY SIM
MC38001-5	P66-ROX-041415					
Benzene		22.3	0.50	0.27	ug/l	SW846 8260C
n-Butylbenzene		12.7	5.0	0.50	ug/l	SW846 8260C
sec-Butylbenzene		18.1	5.0	0.50	ug/l	SW846 8260C
tert-Butylbenzene		3.9 J	5.0	0.57	ug/l	SW846 8260C
Ethylbenzene		3.0	1.0	0.24	ug/l	SW846 8260C
Isopropylbenzene		133	5.0	0.27	ug/l	SW846 8260C
n-Propylbenzene		134	5.0	0.29	ug/l	SW846 8260C
Toluene		2.4	1.0	0.29	ug/l	SW846 8260C
1,2,4-Trimethylbenzene		0.64 J	5.0	0.29	ug/l	SW846 8260C
m,p-Xylene		2.8	1.0	0.47	ug/l	SW846 8260C
o-Xylene		1.5	1.0	0.22	ug/l	SW846 8260C
Xylene (total)		4.4	1.0	0.22	ug/l	SW846 8260C
Dibenzofuran		1.6 J	2.2	0.27	ug/l	SW846 8270D
Acenaphthene		0.60	0.11	0.0082	ug/l	SW846 8270D BY SIM
Acenaphthylene		0.22	0.11	0.0091	ug/l	SW846 8270D BY SIM
Benzo(a)pyrene		0.019 J	0.11	0.017	ug/l	SW846 8270D BY SIM

Summary of Hits

Job Number: MC38001
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Collected: 04/14/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Benzo(b)fluoranthene		0.055	0.054	0.021	ug/l	SW846 8270D BY SIM
Benzo(g,h,i)perylene		0.022 J	0.11	0.014	ug/l	SW846 8270D BY SIM
Benzo(k)fluoranthene		0.021 J	0.11	0.011	ug/l	SW846 8270D BY SIM
Chrysene		0.024 J	0.11	0.014	ug/l	SW846 8270D BY SIM
Fluoranthene		0.050 J	0.11	0.0080	ug/l	SW846 8270D BY SIM
Fluorene		1.3	0.11	0.016	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		66.5	2.2	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		20.0	2.2	0.012	ug/l	SW846 8270D BY SIM
Phenanthrene		0.62	0.054	0.012	ug/l	SW846 8270D BY SIM
Pyrene		0.053 J	0.11	0.0092	ug/l	SW846 8270D BY SIM
MC38001-6	P66-ROX-041415-DUP					
Benzene		21.4	0.50	0.27	ug/l	SW846 8260C
n-Butylbenzene		12.4	5.0	0.50	ug/l	SW846 8260C
sec-Butylbenzene		17.7	5.0	0.50	ug/l	SW846 8260C
tert-Butylbenzene		4.0 J	5.0	0.57	ug/l	SW846 8260C
Ethylbenzene		2.7	1.0	0.24	ug/l	SW846 8260C
Isopropylbenzene		130	5.0	0.27	ug/l	SW846 8260C
n-Propylbenzene		132	5.0	0.29	ug/l	SW846 8260C
Toluene		2.2	1.0	0.29	ug/l	SW846 8260C
1,2,4-Trimethylbenzene		0.53 J	5.0	0.29	ug/l	SW846 8260C
m,p-Xylene		2.4	1.0	0.47	ug/l	SW846 8260C
o-Xylene		1.3	1.0	0.22	ug/l	SW846 8260C
Xylene (total)		3.7	1.0	0.22	ug/l	SW846 8260C
Dibenzofuran		1.6 J	2.1	0.26	ug/l	SW846 8270D
Acenaphthene		0.66	0.11	0.0079	ug/l	SW846 8270D BY SIM
Acenaphthylene		0.21	0.11	0.0088	ug/l	SW846 8270D BY SIM
Anthracene		0.044 J	0.11	0.010	ug/l	SW846 8270D BY SIM
Fluoranthene		0.038 J	0.11	0.0078	ug/l	SW846 8270D BY SIM
Fluorene		1.3	0.11	0.016	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		62.7	2.1	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		18.7	2.1	0.012	ug/l	SW846 8270D BY SIM
Phenanthrene		0.59	0.053	0.011	ug/l	SW846 8270D BY SIM
Pyrene		0.041 J	0.11	0.0089	ug/l	SW846 8270D BY SIM
MC38001-7	TB-ROX-041415-HCL					
No hits reported in this sample.						
MC38001-8	TB-ROX-041415-ST					
No hits reported in this sample.						

New England ACCUTEST LABORATORIES

4

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW28-ROX-041415		
Lab Sample ID:	MC38001-1	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38445.D	1	04/27/15	KD	n/a	n/a	MSV1385
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	18.9	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW28-ROX-041415		
Lab Sample ID:	MC38001-1	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	0.42	1.0	0.22	ug/l	J
1330-20-7	Xylene (total)	0.42	1.0	0.22	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW28-ROX-041415		
Lab Sample ID:	MC38001-1	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	117%		72-133%
2037-26-5	Toluene-D8	105%		85-114%
460-00-4	4-Bromofluorobenzene	102%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW28-ROX-041415		
Lab Sample ID:	MC38001-1	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21615.D	1	04/23/15	KD	04/19/15	OP42730	MSW924
Run #2							

	Initial Volume	Final Volume
Run #1	880 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	2.8	ug/l	
95-57-8	2-Chlorophenol	ND	5.7	0.33	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.57	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.53	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	0.38	ug/l	
51-28-5	2,4-Dinitrophenol	ND	23	2.8	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	0.67	ug/l	
95-48-7	2-Methylphenol	ND	11	0.34	ug/l	
	3&4-Methylphenol	ND	11	0.50	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.53	ug/l	
100-02-7	4-Nitrophenol	ND	23	1.4	ug/l	
87-86-5	Pentachlorophenol	ND	11	0.39	ug/l	
108-95-2	Phenol	ND	5.7	0.36	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.51	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.51	ug/l	
62-53-3	Aniline	ND	11	0.52	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.7	0.29	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.7	0.28	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.37	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.7	0.39	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.40	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.7	0.56	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.7	0.47	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.7	0.48	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.7	0.29	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.7	0.34	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.42	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.43	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.7	0.60	ug/l	
132-64-9	Dibenzofuran	ND	2.3	0.28	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.7	0.31	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.7	0.33	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW28-ROX-041415		
Lab Sample ID:	MC38001-1	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.7	0.30	ug/l	
131-11-3	Dimethyl phthalate	ND	5.7	0.27	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.3	0.36	ug/l	
118-74-1	Hexachlorobenzene	ND	5.7	0.28	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.4	ug/l	
67-72-1	Hexachloroethane	ND	5.7	0.32	ug/l	
78-59-1	Isophorone	ND	5.7	0.53	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.40	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.46	ug/l	
100-01-6	4-Nitroaniline	ND	11	0.58	ug/l	
98-95-3	Nitrobenzene	ND	5.7	0.55	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.7	0.28	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.7	0.29	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.7	0.28	ug/l	
110-86-1	Pyridine	ND	11	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	48%		10-79%
4165-62-2	Phenol-d5	33%		10-72%
118-79-6	2,4,6-Tribromophenol	99%		35-138%
4165-60-0	Nitrobenzene-d5	79%		30-116%
321-60-8	2-Fluorobiphenyl	77%		35-107%
1718-51-0	Terphenyl-d14	100%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW28-ROX-041415		
Lab Sample ID:	MC38001-1	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95305.D	1	04/24/15	MR	04/19/15	OP42731	MSI3565
Run #2							

	Initial Volume	Final Volume
Run #1	880 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.11	0.0085	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.0095	ug/l	
120-12-7	Anthracene	ND	0.11	0.011	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.057	0.027	ug/l	
50-32-8	Benzo(a)pyrene	0.027	0.11	0.017	ug/l	J
205-99-2	Benzo(b)fluoranthene	0.060	0.057	0.022	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.040	0.11	0.014	ug/l	J
207-08-9	Benzo(k)fluoranthene	0.020	0.11	0.011	ug/l	J
218-01-9	Chrysene	ND	0.11	0.015	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.017	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.0084	ug/l	
86-73-7	Fluorene	ND	0.11	0.017	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.035	0.11	0.023	ug/l	J
90-12-0	1-Methylnaphthalene	0.24	2.3	0.014	ug/l	J
91-57-6	2-Methylnaphthalene	0.037	2.3	0.012	ug/l	J
85-01-8	Phenanthrene	ND	0.057	0.012	ug/l	
129-00-0	Pyrene	ND	0.11	0.0097	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	79%		26-121%
321-60-8	2-Fluorobiphenyl	70%		28-107%
1718-51-0	Terphenyl-d14	100%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW28-ROX-041415		
Lab Sample ID:	MC38001-1	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62834.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	36.2 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.0059	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.0059	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	121%		60-140%
460-00-4	Bromofluorobenzene (S)	125%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW22-ROX-041415		
Lab Sample ID:	MC38001-2	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38446.D	1	04/27/15	KD	n/a	n/a	MSV1385
Run #2	V38498.D	50	04/28/15	KD	n/a	n/a	MSV1387

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	1620 [a]	25	14	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	11.2	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	10.5	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	12.3	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW22-ROX-041415		
Lab Sample ID:	MC38001-2	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	3050 [a]	50	12	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	124	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	7.8	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	315	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	219	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	4300 [a]	50	15	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	1040 [a]	250	14	ug/l	
108-67-8	1,3,5-Trimethylbenzene	321	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	6260 [a]	50	23	ug/l	
95-47-6	o-Xylene	3090 [a]	50	11	ug/l	
1330-20-7	Xylene (total)	9350 [a]	50	11	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW22-ROX-041415		
Lab Sample ID:	MC38001-2	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%	103%	72-133%
2037-26-5	Toluene-D8	106%	101%	85-114%
460-00-4	4-Bromofluorobenzene	92%	105%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW22-ROX-041415		
Lab Sample ID:	MC38001-2	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21616.D	1	04/23/15	KD	04/19/15	OP42730	MSW924
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.2	0.30	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.52	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.48	ug/l	
105-67-9	2,4-Dimethylphenol	14.3	10	0.35	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.61	ug/l	
95-48-7	2-Methylphenol	ND	10	0.31	ug/l	
	3&4-Methylphenol	20.1	10	0.46	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.48	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.36	ug/l	
108-95-2	Phenol	10.8	5.2	0.33	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.47	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.46	ug/l	
62-53-3	Aniline	ND	10	0.47	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	0.25	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.33	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.2	0.35	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.37	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	0.51	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	0.43	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	0.43	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	0.27	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.2	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.38	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.39	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	0.55	ug/l	
132-64-9	Dibenzofuran	ND	2.1	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.2	0.28	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.2	0.30	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW22-ROX-041415		
Lab Sample ID:	MC38001-2	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.2	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	5.2	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.33	ug/l	
118-74-1	Hexachlorobenzene	ND	5.2	0.25	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.2	0.29	ug/l	
78-59-1	Isophorone	ND	5.2	0.48	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.37	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.42	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.53	ug/l	
98-95-3	Nitrobenzene	ND	5.2	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	0.26	ug/l	
110-86-1	Pyridine	ND	10	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	16%		10-79%
4165-62-2	Phenol-d5	33%		10-72%
118-79-6	2,4,6-Tribromophenol	109%		35-138%
4165-60-0	Nitrobenzene-d5	71%		30-116%
321-60-8	2-Fluorobiphenyl	79%		35-107%
1718-51-0	Terphenyl-d14	101%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
95-13-6	Indene	5.35	47	ug/l	JN
	Total TIC, Semi-Volatile		47	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW22-ROX-041415		
Lab Sample ID:	MC38001-2	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95306.D	1	04/24/15	MR	04/19/15	OP42731	MSI3565
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.14	0.10	0.0077	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.0087	ug/l	
120-12-7	Anthracene	0.027	0.10	0.010	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.052	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.052	0.020	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	0.016	0.10	0.0076	ug/l	J
86-73-7	Fluorene	0.21	0.10	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.021	ug/l	
90-12-0	1-Methylnaphthalene	24.0	2.1	0.013	ug/l	
91-57-6	2-Methylnaphthalene	39.7	2.1	0.011	ug/l	
85-01-8	Phenanthrene	0.13	0.052	0.011	ug/l	
129-00-0	Pyrene	0.020	0.10	0.0088	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	80%		26-121%
321-60-8	2-Fluorobiphenyl	65%		28-107%
1718-51-0	Terphenyl-d14	102%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW22-ROX-041415		
Lab Sample ID:	MC38001-2	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62835.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	37.2 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0057	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0057	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	113%		60-140%
460-00-4	Bromofluorobenzene (S)	143% [a]		60-140%

(a) Outside control limits.Sample non-detect for target analaytes.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW13-ROX-041415		
Lab Sample ID:	MC38001-3	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38493.D	1	04/28/15	KD	n/a	n/a	MSV1387
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW13-ROX-041415		
Lab Sample ID:	MC38001-3	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	0.33	1.0	0.24	ug/l	J
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	7.5	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	0.35	1.0	0.29	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	0.57	1.0	0.47	ug/l	J
95-47-6	o-Xylene	0.24	1.0	0.22	ug/l	J
1330-20-7	Xylene (total)	0.82	1.0	0.22	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW13-ROX-041415		
Lab Sample ID:	MC38001-3	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	116%		72-133%
2037-26-5	Toluene-D8	102%		85-114%
460-00-4	4-Bromofluorobenzene	107%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW13-ROX-041415		
Lab Sample ID:	MC38001-3	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21617.D	1	04/23/15	KD	04/19/15	OP42730	MSW924
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	2.8	ug/l	
95-57-8	2-Chlorophenol	ND	5.6	0.32	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.56	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.52	ug/l	
105-67-9	2,4-Dimethylphenol	1.3	11	0.38	ug/l	J
51-28-5	2,4-Dinitrophenol	ND	22	2.8	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	0.65	ug/l	
95-48-7	2-Methylphenol	ND	11	0.33	ug/l	
	3&4-Methylphenol	ND	11	0.49	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.52	ug/l	
100-02-7	4-Nitrophenol	ND	22	1.4	ug/l	
87-86-5	Pentachlorophenol	ND	11	0.38	ug/l	
108-95-2	Phenol	ND	5.6	0.36	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.50	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.50	ug/l	
62-53-3	Aniline	ND	11	0.51	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.6	0.28	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.6	0.27	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.36	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.6	0.38	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.40	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.6	0.55	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.6	0.46	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.6	0.47	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.6	0.29	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.6	0.33	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.41	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.42	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.6	0.59	ug/l	
132-64-9	Dibenzofuran	ND	2.2	0.27	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.6	0.30	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.6	0.32	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW13-ROX-041415		
Lab Sample ID:	MC38001-3	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.6	0.30	ug/l	
131-11-3	Dimethyl phthalate	ND	5.6	0.27	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.35	ug/l	
118-74-1	Hexachlorobenzene	ND	5.6	0.27	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.4	ug/l	
67-72-1	Hexachloroethane	ND	5.6	0.32	ug/l	
78-59-1	Isophorone	ND	5.6	0.52	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.40	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.45	ug/l	
100-01-6	4-Nitroaniline	ND	11	0.57	ug/l	
98-95-3	Nitrobenzene	ND	5.6	0.54	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.6	0.28	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.6	0.28	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.6	0.28	ug/l	
110-86-1	Pyridine	ND	11	0.40	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	43%		10-79%
4165-62-2	Phenol-d5	32%		10-72%
118-79-6	2,4,6-Tribromophenol	95%		35-138%
4165-60-0	Nitrobenzene-d5	72%		30-116%
321-60-8	2-Fluorobiphenyl	76%		35-107%
1718-51-0	Terphenyl-d14	90%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW13-ROX-041415		
Lab Sample ID:	MC38001-3	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95307.D	1	04/24/15	MR	04/19/15	OP42731	MSI3565
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.11	0.0083	ug/l	
208-96-8	Acenaphthylene	0.075	0.11	0.0093	ug/l	J
120-12-7	Anthracene	0.051	0.11	0.011	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.056	0.026	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.056	0.021	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.014	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.011	ug/l	
218-01-9	Chrysene	ND	0.11	0.015	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.017	ug/l	
206-44-0	Fluoranthene	0.025	0.11	0.0082	ug/l	J
86-73-7	Fluorene	0.066	0.11	0.017	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.023	ug/l	
90-12-0	1-Methylnaphthalene	0.029	2.2	0.014	ug/l	J
91-57-6	2-Methylnaphthalene	0.055	2.2	0.012	ug/l	J
85-01-8	Phenanthrene	0.070	0.056	0.012	ug/l	
129-00-0	Pyrene	0.023	0.11	0.0094	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	75%		26-121%
321-60-8	2-Fluorobiphenyl	71%		28-107%
1718-51-0	Terphenyl-d14	94%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW13-ROX-041415		
Lab Sample ID:	MC38001-3	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62836.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	37.0 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0058	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0058	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	93%		60-140%
460-00-4	Bromofluorobenzene (S)	115%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW14-ROX-041415		
Lab Sample ID:	MC38001-4	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38494.D	1	04/28/15	KD	n/a	n/a	MSV1387
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW14-ROX-041415		
Lab Sample ID:	MC38001-4	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW14-ROX-041415		
Lab Sample ID:	MC38001-4	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	112%		72-133%
2037-26-5	Toluene-D8	103%		85-114%
460-00-4	4-Bromofluorobenzene	103%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW14-ROX-041415		
Lab Sample ID:	MC38001-4	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21618.D	1	04/23/15	KD	04/19/15	OP42730	MSW924
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.2	0.30	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.52	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.48	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.35	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.61	ug/l	
95-48-7	2-Methylphenol	ND	10	0.31	ug/l	
	3&4-Methylphenol	ND	10	0.46	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.48	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.36	ug/l	
108-95-2	Phenol	ND	5.2	0.33	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.47	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.46	ug/l	
62-53-3	Aniline	ND	10	0.47	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	0.25	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.33	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.2	0.35	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.37	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	0.51	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	0.43	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	0.43	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	0.27	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.2	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.38	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.39	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	0.55	ug/l	
132-64-9	Dibenzofuran	ND	2.1	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.2	0.28	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.2	0.30	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW14-ROX-041415		
Lab Sample ID:	MC38001-4	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.2	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	5.2	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.33	ug/l	
118-74-1	Hexachlorobenzene	ND	5.2	0.25	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.2	0.29	ug/l	
78-59-1	Isophorone	ND	5.2	0.48	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.37	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.42	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.53	ug/l	
98-95-3	Nitrobenzene	ND	5.2	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	0.26	ug/l	
110-86-1	Pyridine	ND	10	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	39%		10-79%
4165-62-2	Phenol-d5	27%		10-72%
118-79-6	2,4,6-Tribromophenol	100%		35-138%
4165-60-0	Nitrobenzene-d5	68%		30-116%
321-60-8	2-Fluorobiphenyl	66%		35-107%
1718-51-0	Terphenyl-d14	97%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW14-ROX-041415		
Lab Sample ID:	MC38001-4	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95308.D	1	04/24/15	MR	04/19/15	OP42731	MSI3565
Run #2							

	Initial Volume	Final Volume
Run #1	920 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.26	0.11	0.0082	ug/l	
208-96-8	Acenaphthylene	0.057	0.11	0.0091	ug/l	J
120-12-7	Anthracene	0.030	0.11	0.011	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.054	0.026	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.054	0.021	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.014	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.011	ug/l	
218-01-9	Chrysene	ND	0.11	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.016	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.0080	ug/l	
86-73-7	Fluorene	0.17	0.11	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.022	ug/l	
90-12-0	1-Methylnaphthalene	0.070	2.2	0.013	ug/l	J
91-57-6	2-Methylnaphthalene	0.018	2.2	0.012	ug/l	J
85-01-8	Phenanthrene	ND	0.054	0.012	ug/l	
129-00-0	Pyrene	ND	0.11	0.0092	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	68%		26-121%
321-60-8	2-Fluorobiphenyl	61%		28-107%
1718-51-0	Terphenyl-d14	101%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW14-ROX-041415		
Lab Sample ID:	MC38001-4	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62837.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	36.2 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.0059	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.0059	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	91%		60-140%
460-00-4	Bromofluorobenzene (S)	93%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P66-ROX-041415		
Lab Sample ID:	MC38001-5	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38449.D	1	04/27/15	KD	n/a	n/a	MSV1385
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	22.3	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	12.7	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	18.1	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	3.9	5.0	0.57	ug/l	J
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P66-ROX-041415		
Lab Sample ID:	MC38001-5	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	3.0	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	133	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	134	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	2.4	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	0.64	5.0	0.29	ug/l	J
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	2.8	1.0	0.47	ug/l	
95-47-6	o-Xylene	1.5	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	4.4	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P66-ROX-041415		
Lab Sample ID:	MC38001-5	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		72-133%
2037-26-5	Toluene-D8	110%		85-114%
460-00-4	4-Bromofluorobenzene	102%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P66-ROX-041415		
Lab Sample ID:	MC38001-5	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21619.D	1	04/23/15	KD	04/19/15	OP42730	MSW924
Run #2							

	Initial Volume	Final Volume
Run #1	920 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	2.7	ug/l	
95-57-8	2-Chlorophenol	ND	5.4	0.32	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.51	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	0.37	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	0.64	ug/l	
95-48-7	2-Methylphenol	ND	11	0.33	ug/l	
	3&4-Methylphenol	ND	11	0.48	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.51	ug/l	
100-02-7	4-Nitrophenol	ND	22	1.4	ug/l	
87-86-5	Pentachlorophenol	ND	11	0.38	ug/l	
108-95-2	Phenol	ND	5.4	0.35	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.49	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.49	ug/l	
62-53-3	Aniline	ND	11	0.50	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.4	0.27	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.4	0.26	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.35	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.4	0.37	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.39	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.4	0.54	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.4	0.45	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.4	0.46	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.4	0.28	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.4	0.32	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.40	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.41	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.4	0.58	ug/l	
132-64-9	Dibenzofuran	1.6	2.2	0.27	ug/l	J
84-74-2	Di-n-butyl phthalate	ND	5.4	0.29	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.4	0.31	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P66-ROX-041415		
Lab Sample ID:	MC38001-5	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.4	0.29	ug/l	
131-11-3	Dimethyl phthalate	ND	5.4	0.26	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.35	ug/l	
118-74-1	Hexachlorobenzene	ND	5.4	0.27	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.4	ug/l	
67-72-1	Hexachloroethane	ND	5.4	0.31	ug/l	
78-59-1	Isophorone	ND	5.4	0.51	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.39	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.44	ug/l	
100-01-6	4-Nitroaniline	ND	11	0.56	ug/l	
98-95-3	Nitrobenzene	ND	5.4	0.53	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.4	0.27	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.4	0.28	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.4	0.27	ug/l	
110-86-1	Pyridine	ND	11	0.39	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	48%		10-79%
4165-62-2	Phenol-d5	33%		10-72%
118-79-6	2,4,6-Tribromophenol	105%		35-138%
4165-60-0	Nitrobenzene-d5	82%		30-116%
321-60-8	2-Fluorobiphenyl	76%		35-107%
1718-51-0	Terphenyl-d14	98%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P66-ROX-041415		
Lab Sample ID:	MC38001-5	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95309.D	1	04/24/15	MR	04/19/15	OP42731	MSI3565
Run #2							

	Initial Volume	Final Volume
Run #1	920 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.60	0.11	0.0082	ug/l	
208-96-8	Acenaphthylene	0.22	0.11	0.0091	ug/l	
120-12-7	Anthracene	ND	0.11	0.011	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.054	0.026	ug/l	
50-32-8	Benzo(a)pyrene	0.019	0.11	0.017	ug/l	J
205-99-2	Benzo(b)fluoranthene	0.055	0.054	0.021	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.022	0.11	0.014	ug/l	J
207-08-9	Benzo(k)fluoranthene	0.021	0.11	0.011	ug/l	J
218-01-9	Chrysene	0.024	0.11	0.014	ug/l	J
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.016	ug/l	
206-44-0	Fluoranthene	0.050	0.11	0.0080	ug/l	J
86-73-7	Fluorene	1.3	0.11	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.022	ug/l	
90-12-0	1-Methylnaphthalene	66.5	2.2	0.013	ug/l	
91-57-6	2-Methylnaphthalene	20.0	2.2	0.012	ug/l	
85-01-8	Phenanthrene	0.62	0.054	0.012	ug/l	
129-00-0	Pyrene	0.053	0.11	0.0092	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	77%		26-121%
321-60-8	2-Fluorobiphenyl	71%		28-107%
1718-51-0	Terphenyl-d14	103%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P66-ROX-041415		
Lab Sample ID:	MC38001-5	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62838.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	35.9 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.0060	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.0059	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	102%		60-140%
460-00-4	Bromofluorobenzene (S)	114%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P66-ROX-041415-DUP		
Lab Sample ID:	MC38001-6	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38450.D	1	04/27/15	KD	n/a	n/a	MSV1385
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	21.4	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	12.4	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	17.7	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	4.0	5.0	0.57	ug/l	J
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P66-ROX-041415-DUP		
Lab Sample ID:	MC38001-6	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	2.7	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	130	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	132	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	2.2	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	0.53	5.0	0.29	ug/l	J
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	2.4	1.0	0.47	ug/l	
95-47-6	o-Xylene	1.3	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	3.7	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P66-ROX-041415-DUP		
Lab Sample ID:	MC38001-6	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		72-133%
2037-26-5	Toluene-D8	107%		85-114%
460-00-4	4-Bromofluorobenzene	104%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P66-ROX-041415-DUP		
Lab Sample ID:	MC38001-6	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21620.D	1	04/23/15	KD	04/19/15	OP42730	MSW924
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.3	0.31	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.53	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.49	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	0.36	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	0.62	ug/l	
95-48-7	2-Methylphenol	ND	11	0.31	ug/l	
	3&4-Methylphenol	ND	11	0.47	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.49	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	11	0.36	ug/l	
108-95-2	Phenol	ND	5.3	0.34	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.47	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.47	ug/l	
62-53-3	Aniline	ND	11	0.48	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.26	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.34	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	0.36	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.38	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	0.52	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.44	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.44	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	0.27	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	0.31	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.39	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.40	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.56	ug/l	
132-64-9	Dibenzofuran	1.6	2.1	0.26	ug/l	J
84-74-2	Di-n-butyl phthalate	ND	5.3	0.28	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	0.30	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P66-ROX-041415-DUP		
Lab Sample ID:	MC38001-6	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.3	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	5.3	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.33	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.26	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.3	0.30	ug/l	
78-59-1	Isophorone	ND	5.3	0.49	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.38	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.43	ug/l	
100-01-6	4-Nitroaniline	ND	11	0.54	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.51	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	0.27	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.26	ug/l	
110-86-1	Pyridine	ND	11	0.38	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	44%		10-79%
4165-62-2	Phenol-d5	31%		10-72%
118-79-6	2,4,6-Tribromophenol	109%		35-138%
4165-60-0	Nitrobenzene-d5	77%		30-116%
321-60-8	2-Fluorobiphenyl	76%		35-107%
1718-51-0	Terphenyl-d14	102%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P66-ROX-041415-DUP		
Lab Sample ID:	MC38001-6	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95310.D	1	04/24/15	MR	04/19/15	OP42731	MSI3565
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.66	0.11	0.0079	ug/l	
208-96-8	Acenaphthylene	0.21	0.11	0.0088	ug/l	
120-12-7	Anthracene	0.044	0.11	0.010	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.053	0.025	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.053	0.020	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.011	ug/l	
218-01-9	Chrysene	ND	0.11	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.016	ug/l	
206-44-0	Fluoranthene	0.038	0.11	0.0078	ug/l	J
86-73-7	Fluorene	1.3	0.11	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.021	ug/l	
90-12-0	1-Methylnaphthalene	62.7	2.1	0.013	ug/l	
91-57-6	2-Methylnaphthalene	18.7	2.1	0.012	ug/l	
85-01-8	Phenanthrene	0.59	0.053	0.011	ug/l	
129-00-0	Pyrene	0.041	0.11	0.0089	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	72%		26-121%
321-60-8	2-Fluorobiphenyl	68%		28-107%
1718-51-0	Terphenyl-d14	103%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P66-ROX-041415-DUP		
Lab Sample ID:	MC38001-6	Date Sampled:	04/14/15
Matrix:	AQ - Ground Water	Date Received:	04/15/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62839.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	36.7 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0058	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0058	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	139%		60-140%
460-00-4	Bromofluorobenzene (S)	157% [a]		60-140%

(a) Outside control limits.Sample non-detect for target analaytes.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-041415-HCL		
Lab Sample ID:	MC38001-7	Date Sampled:	04/14/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/15/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38437.D	1	04/27/15	KD	n/a	n/a	MSV1385
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-041415-HCL		
Lab Sample ID:	MC38001-7	Date Sampled:	04/14/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/15/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-041415-HCL		
Lab Sample ID:	MC38001-7	Date Sampled:	04/14/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/15/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	117%		72-133%
2037-26-5	Toluene-D8	101%		85-114%
460-00-4	4-Bromofluorobenzene	100%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-041415-ST		
Lab Sample ID:	MC38001-8	Date Sampled:	04/14/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/15/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62840.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	36.4 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0059	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0059	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	112%		60-140%
460-00-4	Bromofluorobenzene (S)	121%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

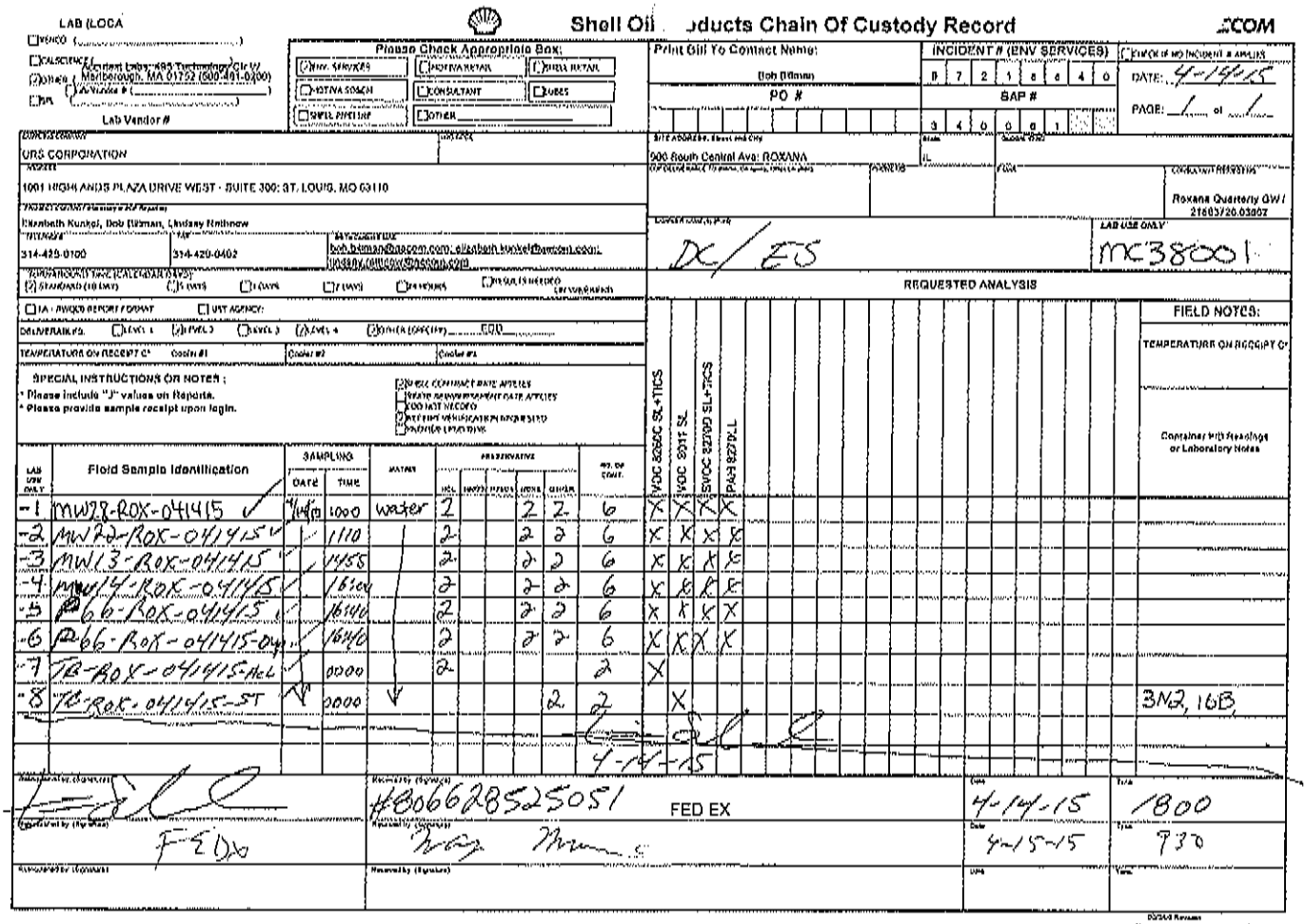
New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



Shell Oil ... oducts Chain Of Custody Record

LAB (LOCA
(VENCO (.....)
(CALSCIENCE (Alternate Labs: 485 Technology Cir W, Marlborough, MA 01752 (508-481-6200))
(Other (Vendor # (.....))
(PA (.....)
Lab Vendor #

Please Check Appropriate Box:
(ENV. SERVICES) (NOTVA WATER) (SHELL WATER)
(NOTVA SOIL) (CONSULTANT) (OTHER)
(SHELL PIPELINE) (OTHER)

Print Bill To Contact Name:
(Bob Billman)
PO #

INCIDENT # (ENV SERVICES): 8 7 2 1 8 4 4 0
SAP #: 3 4 0 0 8 1
(CHECK IF NO INCIDENT # AVAILABLE)
DATE: 4-14-15
PAGE: 1 of 1

CONSULTANT COMPANY: URS CORPORATION
ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST · SUITE 300; ST. LOUIS, MO 63110
PROJECT CONTACT (Hardcopy or PDF Report to): Elizabeth Kunkel, Bob Billman, Lindsey Rothrock
TELEPHONE: 314-429-0100 FAX: 314-429-0462
E-MAIL ADDRESS: bob.billman@aecom.com; elizabeth.kunkel@aecom.com; lindsey.rothrock@aecom.com
TURNAROUND TIME (CALENDAR DAYS): (2) STANDARD (10 DAYS) (5 DAYS) (3 DAYS) (2 DAYS) (1 DAY) (24 HOURS) (48 HOURS) (72 HOURS) (OTHER)
(TA - PWSID REPORT FORMAT) (UST AGENCY:)
DELIVERABLES: (LEVEL 1) (2) LEVEL 2 (LEVEL 3) (LEVEL 4) (2) EDF (EQUIS) EDD

SITE ADDRESS (Street and City): 900 South Central Ave; ROXANA
STATE: IL
ZIP CODE:
GLOBAL ID:
PROJECT #:
CONSULTANT PROJECT #: Roxana Quarterly GW / 21605720.03007
SAMPLER NAME(S) PRINT: DC / ES
LAB USE ONLY: MC38001

TEMPERATURE ON RECEIPT C° Cooler #1 Cooler #2 Cooler #3

SPECIAL INSTRUCTIONS OR NOTES:
* Please include "J" values on Reports.
* Please provide sample receipt upon login.
(2) WRITE CONTRACT RATE ATTACHED
(WRITE REIMBURSEMENT RATE ATTACHED)
(DO NOT RECORD)
(2) FIELD VERIFICATION REQUIRED
(PROVIDE LEVEL IV QA/QC)

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	PRESERVATIVE NONE	PRESERVATIVE H2SO4	PRESERVATIVE HNO3	NO. OF CONT.	VOC 8260C SX+TICS	VOC 8011 SL	SVOC 8270D SL+TICS	PAH 8270C-L	FIELD NOTES:
-1	MW28-ROX-041415	4/14	1000	water	2		2	2	6	X	X	X	X	TEMPERATURE ON RECEIPT C°
-2	MW22-ROX-041415		1110		2		2	2	6	X	X	X	X	
-3	MW13-ROX-041415		1155		2		2	2	6	X	X	X	X	
-4	MW14-ROX-041415		1610		2		2	2	6	X	X	X	X	
-5	P66-ROX-041415		1610		2		2	2	6	X	X	X	X	
-6	P66-ROX-041415-DUP		1610		2		2	2	6	X	X	X	X	
-7	TB-ROX-041415-ACL		0000		2				2	X				
-8	TB-ROX-041415-ST		0000					2	2		X			3N2, 16B, Container Info Readings or Laboratory Notes
									4-14-15					

Relinquished by (Signature): [signature]
Received by (Signature): #806628525051 FED EX
Relinquished by (Signature): [signature]
Received by (Signature): [signature]
Relinquished by (Signature):
Received by (Signature):

Relinquished by (Print): FEDX
Received by (Print): [signature]
Relinquished by (Print):
Received by (Print):

Date: 4-14-15
Time: 1800
Date: 4-15-15
Time: 930
Date:
Time:

0,3°C-0.7°C

5.1

MC38001: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC38001 **Client:** URS **Project:** 900 SOUTH CENTRAL

Date / Time Received: 4/15/2015 9:30:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (0.3/0.3); #2: (0.9/0.9);

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	☑ ☐	3. COC Present:	☑ ☐
2. Custody Seals Intact:	☑ ☐	4. Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Thermometer ID:	G1;
3. Cooler media:	Ice (Bag)
4. No. Coolers:	2

Quality Control Preservation	Y or N	N/A
1. Trip Blank present / cooler:	☑ ☐	☐
2. Trip Blank listed on COC:	☑ ☐	☐
3. Samples preserved properly:	☑ ☐	
4. VOCs headspace free:	☑ ☐	☐

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	☑ ☐
2. Container labeling complete:	☑ ☐
3. Sample container label / COC agree:	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	☑ ☐
2. All containers accounted for:	☑ ☐
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear:	☑ ☐	
2. Bottles received for unspecified tests	☐ ☑	
3. Sufficient volume recvd for analysis:	☑ ☐	
4. Compositing instructions clear:	☐ ☐	☑
5. Filtering instructions clear:	☐ ☐	☑

Comments

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC38001

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC38001-1 Collected: 14-APR-15 10:00 By: DCES Received: 15-APR-15 By: MW28-ROX-041415						
MC38001-1	SW846 8011	18-APR-15 08:03	NK	16-APR-15	AW	V8011SL
MC38001-1	SW846 8270D	23-APR-15 14:06	KD	19-APR-15	PA	AB8270SL+
MC38001-1	SW846 8270D BY SIM	24-APR-15 11:51	MR	19-APR-15	SC	B8270SIMSL
MC38001-1	SW846 8260C	27-APR-15 15:43	KD			V8260SL+
MC38001-2 Collected: 14-APR-15 11:10 By: DCES Received: 15-APR-15 By: MW22-ROX-041415						
MC38001-2	SW846 8011	18-APR-15 08:32	NK	16-APR-15	AW	V8011SL
MC38001-2	SW846 8270D	23-APR-15 14:31	KD	19-APR-15	PA	AB8270SL+
MC38001-2	SW846 8270D BY SIM	24-APR-15 12:14	MR	19-APR-15	SC	B8270SIMSL
MC38001-2	SW846 8260C	27-APR-15 16:12	KD			V8260SL+
MC38001-2	SW846 8260C	28-APR-15 18:09	KD			V8260SL+
MC38001-3 Collected: 14-APR-15 14:55 By: DCES Received: 15-APR-15 By: MW13-ROX-041415						
MC38001-3	SW846 8011	18-APR-15 09:01	NK	16-APR-15	AW	V8011SL
MC38001-3	SW846 8270D	23-APR-15 14:56	KD	19-APR-15	PA	AB8270SL+
MC38001-3	SW846 8270D BY SIM	24-APR-15 12:38	MR	19-APR-15	SC	B8270SIMSL
MC38001-3	SW846 8260C	28-APR-15 15:46	KD			V8260SL+
MC38001-4 Collected: 14-APR-15 16:00 By: DCES Received: 15-APR-15 By: MW14-ROX-041415						
MC38001-4	SW846 8011	18-APR-15 09:30	NK	16-APR-15	AW	V8011SL
MC38001-4	SW846 8270D	23-APR-15 15:20	KD	19-APR-15	PA	AB8270SL+
MC38001-4	SW846 8270D BY SIM	24-APR-15 13:02	MR	19-APR-15	SC	B8270SIMSL
MC38001-4	SW846 8260C	28-APR-15 16:15	KD			V8260SL+
MC38001-5 Collected: 14-APR-15 16:40 By: DCES Received: 15-APR-15 By: P66-ROX-041415						
MC38001-5	SW846 8011	18-APR-15 09:58	NK	16-APR-15	AW	V8011SL
MC38001-5	SW846 8270D	23-APR-15 15:45	KD	19-APR-15	PA	AB8270SL+
MC38001-5	SW846 8270D BY SIM	24-APR-15 13:26	MR	19-APR-15	SC	B8270SIMSL
MC38001-5	SW846 8260C	27-APR-15 17:38	KD			V8260SL+

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC38001

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC38001-6 Collected: 14-APR-15 16:40 By: DCES Received: 15-APR-15 By: P66-ROX-041415-DUP						
MC38001-6	SW846 8011	18-APR-15 10:26	NK	16-APR-15	AW	V8011SL
MC38001-6	SW846 8270D	23-APR-15 16:10	KD	19-APR-15	PA	AB8270SL+
MC38001-6	SW846 8270D BY SIM	24-APR-15 13:49	MR	19-APR-15	SC	B8270SIMSL
MC38001-6	SW846 8260C	27-APR-15 18:06	KD			V8260SL+
MC38001-7 Collected: 14-APR-15 00:00 By: DCES Received: 15-APR-15 By: TB-ROX-041415-HCL						
MC38001-7	SW846 8260C	27-APR-15 11:56	KD			V8260SL+
MC38001-8 Collected: 14-APR-15 00:00 By: DCES Received: 15-APR-15 By: TB-ROX-041415-ST						
MC38001-8	SW846 8011	18-APR-15 10:54	NK	16-APR-15	AW	V8011SL

Accutest Internal Chain of Custody

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Received: 04/15/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC38001-1.2	Walk In Ref #22	Michael DiBuono	04/19/15 13:29	Retrieve from Storage
MC38001-1.2	Michael DiBuono		05/05/15 10:33	Depleted
MC38001-1.3	VOC Ref #3	Krysten Dufort	04/27/15 11:13	Retrieve from Storage
MC38001-1.3	Krysten Dufort	GCMSV	04/27/15 11:13	Load on Instrument
MC38001-1.3	GCMSV	Krysten Dufort	04/28/15 12:45	Unload from Instrument
MC38001-1.3	Krysten Dufort	VOC Ref #3	04/28/15 12:45	Return to Storage
MC38001-1.5	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC38001-1.5	Nicole Estey		04/16/15 23:05	Depleted
MC38001-2.2	Walk In Ref #22	Michael DiBuono	04/19/15 13:29	Retrieve from Storage
MC38001-2.2	Michael DiBuono		05/05/15 10:33	Depleted
MC38001-2.3	VOC Ref #3	Krysten Dufort	04/28/15 14:21	Retrieve from Storage
MC38001-2.3	Krysten Dufort	GCMSV	04/28/15 14:21	Load on Instrument
MC38001-2.3	GCMSV	Krysten Dufort	04/29/15 12:13	Unload from Instrument
MC38001-2.3	Krysten Dufort	VOC Ref #3	04/29/15 12:14	Return to Storage
MC38001-2.4	VOC Ref #3	Krysten Dufort	04/27/15 11:13	Retrieve from Storage
MC38001-2.4	Krysten Dufort	GCMSV	04/27/15 11:13	Load on Instrument
MC38001-2.4	GCMSV	Krysten Dufort	04/28/15 12:45	Unload from Instrument
MC38001-2.4	Krysten Dufort	VOC Ref #3	04/28/15 12:45	Return to Storage
MC38001-2.5	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC38001-2.5	Nicole Estey		04/16/15 23:05	Depleted
MC38001-3.1	Walk In Ref #22	Michael DiBuono	04/19/15 13:29	Retrieve from Storage
MC38001-3.1	Michael DiBuono		05/05/15 10:33	Depleted
MC38001-3.3	VOC Ref #3	Krysten Dufort	04/27/15 11:13	Retrieve from Storage
MC38001-3.3	Krysten Dufort	GCMSV	04/27/15 11:13	Load on Instrument
MC38001-3.3	GCMSV	Krysten Dufort	04/28/15 12:45	Unload from Instrument
MC38001-3.3	Krysten Dufort	VOC Ref #3	04/28/15 12:45	Return to Storage
MC38001-3.4	VOC Ref #3	Krysten Dufort	04/28/15 14:21	Retrieve from Storage
MC38001-3.4	Krysten Dufort	GCMSV	04/28/15 14:21	Load on Instrument
MC38001-3.4	GCMSV	Krysten Dufort	04/29/15 12:13	Unload from Instrument
MC38001-3.4	Krysten Dufort	VOC Ref #3	04/29/15 12:14	Return to Storage
MC38001-3.6	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC38001-3.6	Nicole Estey		04/16/15 23:05	Depleted
MC38001-4.2	Walk In Ref #22	Michael DiBuono	04/19/15 13:29	Retrieve from Storage

Accutest Internal Chain of Custody

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Received: 04/15/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC38001-4.2	Michael DiBuono		05/05/15 10:33	Depleted
MC38001-4.3	VOC Ref #3	Krysten Dufort	04/28/15 14:21	Retrieve from Storage
MC38001-4.3	Krysten Dufort	GCMSV	04/28/15 14:21	Load on Instrument
MC38001-4.3	GCMSV	Krysten Dufort	04/29/15 12:13	Unload from Instrument
MC38001-4.3	Krysten Dufort	VOC Ref #3	04/29/15 12:14	Return to Storage
MC38001-4.4	VOC Ref #3	Krysten Dufort	04/27/15 11:13	Retrieve from Storage
MC38001-4.4	Krysten Dufort	GCMSV	04/27/15 11:13	Load on Instrument
MC38001-4.4	GCMSV	Krysten Dufort	04/28/15 12:45	Unload from Instrument
MC38001-4.4	Krysten Dufort	VOC Ref #3	04/28/15 12:45	Return to Storage
MC38001-4.6	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC38001-4.6	Nicole Estey		04/16/15 23:05	Depleted
MC38001-5.2	Walk In Ref #22	Michael DiBuono	04/19/15 13:29	Retrieve from Storage
MC38001-5.2	Michael DiBuono		05/05/15 10:33	Depleted
MC38001-5.4	VOC Ref #3	Krysten Dufort	04/27/15 11:13	Retrieve from Storage
MC38001-5.4	Krysten Dufort	GCMSV	04/27/15 11:13	Load on Instrument
MC38001-5.4	GCMSV	Krysten Dufort	04/28/15 12:45	Unload from Instrument
MC38001-5.4	Krysten Dufort	VOC Ref #3	04/28/15 12:45	Return to Storage
MC38001-5.6	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC38001-5.6	Nicole Estey		04/16/15 23:05	Depleted
MC38001-6.2	Walk In Ref #22	Michael DiBuono	04/19/15 13:29	Retrieve from Storage
MC38001-6.2	Michael DiBuono		05/05/15 10:33	Depleted
MC38001-6.4	VOC Ref #3	Krysten Dufort	04/27/15 11:13	Retrieve from Storage
MC38001-6.4	Krysten Dufort	GCMSV	04/27/15 11:13	Load on Instrument
MC38001-6.4	GCMSV	Krysten Dufort	04/28/15 12:45	Unload from Instrument
MC38001-6.4	Krysten Dufort	VOC Ref #3	04/28/15 12:45	Return to Storage
MC38001-6.6	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC38001-6.6	Nicole Estey		04/16/15 23:05	Depleted
MC38001-7.2	VOC Ref #3	Krysten Dufort	04/27/15 11:13	Retrieve from Storage
MC38001-7.2	Krysten Dufort	GCMSV	04/27/15 11:13	Load on Instrument
MC38001-7.2	GCMSV	Krysten Dufort	04/28/15 12:45	Unload from Instrument
MC38001-7.2	Krysten Dufort	VOC Ref #3	04/28/15 12:45	Return to Storage
MC38001-8.2	VOC Ref #3	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC38001-8.2	Nicole Estey		04/16/15 23:05	Depleted

5.3

New England ACCUTEST LABORATORIES

GC/MS Volatiles

6

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1385-MB	V38436.D	1	04/27/15	KD	n/a	n/a	MSV1385

The QC reported here applies to the following samples: Method: SW846 8260C

MC38001-1, MC38001-2, MC38001-5, MC38001-6, MC38001-7

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	

Method Blank Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1385-MB	V38436.D	1	04/27/15	KD	n/a	n/a	MSV1385

The QC reported here applies to the following samples: Method: SW846 8260C

MC38001-1, MC38001-2, MC38001-5, MC38001-6, MC38001-7

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

6.1.1

Method Blank Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1385-MB	V38436.D	1	04/27/15	KD	n/a	n/a	MSV1385

The QC reported here applies to the following samples: Method: SW846 8260C

MC38001-1, MC38001-2, MC38001-5, MC38001-6, MC38001-7

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	115%	72-133%
2037-26-5	Toluene-D8	100%	85-114%
460-00-4	4-Bromofluorobenzene	100%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1387-MB	V38489.D	1	04/28/15	KD	n/a	n/a	MSV1387

6.1.2

The QC reported here applies to the following samples: Method: SW846 8260C

MC38001-2, MC38001-3, MC38001-4

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	

Method Blank Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1387-MB	V38489.D	1	04/28/15	KD	n/a	n/a	MSV1387

The QC reported here applies to the following samples: Method: SW846 8260C

MC38001-2, MC38001-3, MC38001-4

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

Method Blank Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1387-MB	V38489.D	1	04/28/15	KD	n/a	n/a	MSV1387

The QC reported here applies to the following samples: Method: SW846 8260C

MC38001-2, MC38001-3, MC38001-4

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	108%	72-133%
2037-26-5	Toluene-D8	101%	85-114%
460-00-4	4-Bromofluorobenzene	99%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

6.1.2

Blank Spike Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1385-BS	V38433.D	1	04/27/15	KD	n/a	n/a	MSV1385

The QC reported here applies to the following samples: Method: SW846 8260C

MC38001-1, MC38001-2, MC38001-5, MC38001-6, MC38001-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	65.1	130	14-172
107-02-8	Acrolein	250	163	65	10-168
107-13-1	Acrylonitrile	50	47.0	94	41-158
71-43-2	Benzene	50	47.0	94	68-127
108-86-1	Bromobenzene	50	49.9	100	74-124
74-97-5	Bromochloromethane	50	46.6	93	68-135
75-27-4	Bromodichloromethane	50	55.9	112	72-144
75-25-2	Bromoform	50	47.4	95	59-147
74-83-9	Bromomethane	50	58.7	117	34-175
78-93-3	2-Butanone (MEK)	50	49.6	99	43-147
104-51-8	n-Butylbenzene	50	51.4	103	77-136
135-98-8	sec-Butylbenzene	50	51.0	102	75-134
98-06-6	tert-Butylbenzene	50	49.6	99	74-132
75-15-0	Carbon disulfide	50	49.5	99	34-171
56-23-5	Carbon tetrachloride	50	55.8	112	55-153
108-90-7	Chlorobenzene	50	50.3	101	71-123
75-00-3	Chloroethane	50	53.7	107	58-175
110-75-8	2-Chloroethyl vinyl ether	50	40.8	82	44-169
67-66-3	Chloroform	50	50.7	101	67-136
74-87-3	Chloromethane	50	53.7	107	25-182
95-49-8	o-Chlorotoluene	50	50.5	101	72-130
106-43-4	p-Chlorotoluene	50	51.1	102	73-127
124-48-1	Dibromochloromethane	50	48.5	97	73-139
95-50-1	1,2-Dichlorobenzene	50	47.4	95	77-125
541-73-1	1,3-Dichlorobenzene	50	49.4	99	77-124
106-46-7	1,4-Dichlorobenzene	50	48.0	96	73-128
75-71-8	Dichlorodifluoromethane	50	55.0	110	23-157
75-34-3	1,1-Dichloroethane	50	50.0	100	63-145
107-06-2	1,2-Dichloroethane	50	52.3	105	58-145
75-35-4	1,1-Dichloroethene	50	48.6	97	56-158
156-59-2	cis-1,2-Dichloroethene	50	47.4	95	67-133
156-60-5	trans-1,2-Dichloroethene	50	48.3	97	66-136
78-87-5	1,2-Dichloropropane	50	51.8	104	75-133
142-28-9	1,3-Dichloropropane	50	47.6	95	70-127
594-20-7	2,2-Dichloropropane	50	52.4	105	52-163
563-58-6	1,1-Dichloropropene	50	49.7	99	77-140

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1385-BS	V38433.D	1	04/27/15	KD	n/a	n/a	MSV1385

The QC reported here applies to the following samples: Method: SW846 8260C

MC38001-1, MC38001-2, MC38001-5, MC38001-6, MC38001-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-01-5	cis-1,3-Dichloropropene	50	48.2	96	74-141
10061-02-6	trans-1,3-Dichloropropene	50	49.4	99	77-143
123-91-1	1,4-Dioxane	250	219	88	30-182
97-63-2	Ethyl methacrylate	50	45.2	90	64-131
100-41-4	Ethylbenzene	50	52.9	106	71-129
87-68-3	Hexachlorobutadiene	50	44.6	89	64-146
591-78-6	2-Hexanone	50	49.5	99	22-163
98-82-8	Isopropylbenzene	50	51.5	103	72-133
99-87-6	p-Isopropyltoluene	50	50.8	102	77-134
1634-04-4	Methyl Tert Butyl Ether	50	51.3	103	46-151
108-10-1	4-Methyl-2-pentanone (MIBK)	50	44.5	89	47-145
74-95-3	Methylene bromide	50	51.0	102	70-132
75-09-2	Methylene chloride	50	46.9	94	55-146
91-20-3	Naphthalene	50	36.1	72	39-176
103-65-1	n-Propylbenzene	50	53.8	108	74-134
100-42-5	Styrene	50	51.7	103	71-134
630-20-6	1,1,1,2-Tetrachloroethane	50	48.9	98	70-137
79-34-5	1,1,2,2-Tetrachloroethane	50	48.8	98	58-145
127-18-4	Tetrachloroethene	50	49.6	99	63-137
108-88-3	Toluene	50	50.4	101	75-126
87-61-6	1,2,3-Trichlorobenzene	50	40.1	80	27-181
120-82-1	1,2,4-Trichlorobenzene	50	42.1	84	40-176
71-55-6	1,1,1-Trichloroethane	50	50.3	101	68-144
79-00-5	1,1,2-Trichloroethane	50	50.2	100	72-133
79-01-6	Trichloroethene	50	48.7	97	73-126
75-69-4	Trichlorofluoromethane	50	61.4	123	43-152
96-18-4	1,2,3-Trichloropropane	50	42.5	85	58-141
95-63-6	1,2,4-Trimethylbenzene	50	52.2	104	76-129
108-67-8	1,3,5-Trimethylbenzene	50	52.1	104	71-127
108-05-4	Vinyl Acetate	50	50.3	101	10-170
75-01-4	Vinyl chloride	50	49.3	99	36-167
	m,p-Xylene	100	104	104	68-130
95-47-6	o-Xylene	50	51.4	103	69-126
1330-20-7	Xylene (total)	150	155	103	67-129

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1385-BS	V38433.D	1	04/27/15	KD	n/a	n/a	MSV1385

The QC reported here applies to the following samples: Method: SW846 8260C

MC38001-1, MC38001-2, MC38001-5, MC38001-6, MC38001-7

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	104%	72-133%
2037-26-5	Toluene-D8	103%	85-114%
460-00-4	4-Bromofluorobenzene	100%	70-134%

6.2.1

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1387-BS	V38486.D	1	04/28/15	KD	n/a	n/a	MSV1387

The QC reported here applies to the following samples: Method: SW846 8260C

MC38001-2, MC38001-3, MC38001-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	64.9	130	14-172
107-02-8	Acrolein	250	189	76	10-168
107-13-1	Acrylonitrile	50	46.7	93	41-158
71-43-2	Benzene	50	46.2	92	68-127
108-86-1	Bromobenzene	50	49.3	99	74-124
74-97-5	Bromochloromethane	50	45.6	91	68-135
75-27-4	Bromodichloromethane	50	52.8	106	72-144
75-25-2	Bromoform	50	43.0	86	59-147
74-83-9	Bromomethane	50	56.2	112	34-175
78-93-3	2-Butanone (MEK)	50	50.9	102	43-147
104-51-8	n-Butylbenzene	50	52.4	105	77-136
135-98-8	sec-Butylbenzene	50	52.4	105	75-134
98-06-6	tert-Butylbenzene	50	51.9	104	74-132
75-15-0	Carbon disulfide	50	46.6	93	34-171
56-23-5	Carbon tetrachloride	50	53.1	106	55-153
108-90-7	Chlorobenzene	50	49.1	98	71-123
75-00-3	Chloroethane	50	53.1	106	58-175
110-75-8	2-Chloroethyl vinyl ether	50	41.9	84	44-169
67-66-3	Chloroform	50	49.9	100	67-136
74-87-3	Chloromethane	50	53.0	106	25-182
95-49-8	o-Chlorotoluene	50	51.2	102	72-130
106-43-4	p-Chlorotoluene	50	51.4	103	73-127
124-48-1	Dibromochloromethane	50	45.4	91	73-139
95-50-1	1,2-Dichlorobenzene	50	47.3	95	77-125
541-73-1	1,3-Dichlorobenzene	50	49.0	98	77-124
106-46-7	1,4-Dichlorobenzene	50	47.5	95	73-128
75-71-8	Dichlorodifluoromethane	50	60.1	120	23-157
75-34-3	1,1-Dichloroethane	50	49.5	99	63-145
107-06-2	1,2-Dichloroethane	50	50.7	101	58-145
75-35-4	1,1-Dichloroethene	50	48.4	97	56-158
156-59-2	cis-1,2-Dichloroethene	50	46.6	93	67-133
156-60-5	trans-1,2-Dichloroethene	50	47.3	95	66-136
78-87-5	1,2-Dichloropropane	50	51.2	102	75-133
142-28-9	1,3-Dichloropropane	50	47.0	94	70-127
594-20-7	2,2-Dichloropropane	50	51.1	102	52-163
563-58-6	1,1-Dichloropropene	50	50.2	100	77-140

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1387-BS	V38486.D	1	04/28/15	KD	n/a	n/a	MSV1387

The QC reported here applies to the following samples: Method: SW846 8260C

MC38001-2, MC38001-3, MC38001-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-01-5	cis-1,3-Dichloropropene	50	46.9	94	74-141
10061-02-6	trans-1,3-Dichloropropene	50	48.1	96	77-143
123-91-1	1,4-Dioxane	250	219	88	30-182
97-63-2	Ethyl methacrylate	50	46.4	93	64-131
100-41-4	Ethylbenzene	50	51.4	103	71-129
87-68-3	Hexachlorobutadiene	50	46.5	93	64-146
591-78-6	2-Hexanone	50	49.5	99	22-163
98-82-8	Isopropylbenzene	50	53.0	106	72-133
99-87-6	p-Isopropyltoluene	50	52.0	104	77-134
1634-04-4	Methyl Tert Butyl Ether	50	50.9	102	46-151
108-10-1	4-Methyl-2-pentanone (MIBK)	50	45.7	91	47-145
74-95-3	Methylene bromide	50	49.5	99	70-132
75-09-2	Methylene chloride	50	45.7	91	55-146
91-20-3	Naphthalene	50	36.5	73	39-176
103-65-1	n-Propylbenzene	50	54.9	110	74-134
100-42-5	Styrene	50	50.0	100	71-134
630-20-6	1,1,1,2-Tetrachloroethane	50	45.7	91	70-137
79-34-5	1,1,2,2-Tetrachloroethane	50	48.3	97	58-145
127-18-4	Tetrachloroethene	50	49.9	100	63-137
108-88-3	Toluene	50	49.5	99	75-126
87-61-6	1,2,3-Trichlorobenzene	50	40.1	80	27-181
120-82-1	1,2,4-Trichlorobenzene	50	42.7	85	40-176
71-55-6	1,1,1-Trichloroethane	50	49.0	98	68-144
79-00-5	1,1,2-Trichloroethane	50	50.9	102	72-133
79-01-6	Trichloroethene	50	48.9	98	73-126
75-69-4	Trichlorofluoromethane	50	63.4	127	43-152
96-18-4	1,2,3-Trichloropropane	50	43.6	87	58-141
95-63-6	1,2,4-Trimethylbenzene	50	52.6	105	76-129
108-67-8	1,3,5-Trimethylbenzene	50	52.4	105	71-127
108-05-4	Vinyl Acetate	50	49.5	99	10-170
75-01-4	Vinyl chloride	50	51.3	103	36-167
	m,p-Xylene	100	101	101	68-130
95-47-6	o-Xylene	50	50.1	100	69-126
1330-20-7	Xylene (total)	150	151	101	67-129

* = Outside of Control Limits.

6.2.2

Blank Spike Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1387-BS	V38486.D	1	04/28/15	KD	n/a	n/a	MSV1387

The QC reported here applies to the following samples: Method: SW846 8260C

MC38001-2, MC38001-3, MC38001-4

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	104%	72-133%
2037-26-5	Toluene-D8	103%	85-114%
460-00-4	4-Bromofluorobenzene	104%	70-134%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC37996-5MS	V38455.D	5	04/27/15	KD	n/a	n/a	MSV1385
MC37996-5MSD	V38456.D	5	04/27/15	KD	n/a	n/a	MSV1385
MC37996-5	V38438.D	1	04/27/15	KD	n/a	n/a	MSV1385

The QC reported here applies to the following samples: Method: SW846 8260C

MC38001-1, MC38001-2, MC38001-5, MC38001-6, MC38001-7

CAS No.	Compound	MC37996-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250	158	63	250	147	59	7	10-135/30
107-02-8	Acrolein	ND		1250	1110	89	1250	1060	85	5	10-175/30
107-13-1	Acrylonitrile	ND		250	239	96	250	230	92	4	37-163/30
71-43-2	Benzene	ND		250	229	92	250	228	91	0	61-138/30
108-86-1	Bromobenzene	ND		250	251	100	250	251	100	0	71-126/30
74-97-5	Bromochloromethane	ND		250	234	94	250	229	92	2	70-136/30
75-27-4	Bromodichloromethane	ND		250	256	102	250	252	101	2	73-146/30
75-25-2	Bromoform	ND		250	225	90	250	219	88	3	54-147/30
74-83-9	Bromomethane	ND		250	275	110	250	266	106	3	20-171/30
78-93-3	2-Butanone (MEK)	ND		250	185	74	250	181	72	2	33-127/30
104-51-8	n-Butylbenzene	ND		250	249	100	250	242	97	3	69-138/30
135-98-8	sec-Butylbenzene	ND		250	260	104	250	250	100	4	71-137/30
98-06-6	tert-Butylbenzene	ND		250	249	100	250	244	98	2	68-137/30
75-15-0	Carbon disulfide	ND		250	246	98	250	231	92	6	29-178/30
56-23-5	Carbon tetrachloride	ND		250	255	102	250	243	97	5	57-155/30
108-90-7	Chlorobenzene	ND		250	247	99	250	247	99	0	69-126/30
75-00-3	Chloroethane	ND		250	253	101	250	256	102	1	57-182/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	ND	0* [a]	250	ND	0* [a]	nc	10-200/30
67-66-3	Chloroform	ND		250	243	97	250	242	97	0	66-142/30
74-87-3	Chloromethane	ND		250	246	98	250	248	99	1	18-182/30
95-49-8	o-Chlorotoluene	ND		250	252	101	250	248	99	2	60-145/30
106-43-4	p-Chlorotoluene	ND		250	251	100	250	249	100	1	64-138/30
124-48-1	Dibromochloromethane	ND		250	229	92	250	226	90	1	71-138/30
95-50-1	1,2-Dichlorobenzene	ND		250	236	94	250	231	92	2	75-125/30
541-73-1	1,3-Dichlorobenzene	ND		250	240	96	250	240	96	0	74-125/30
106-46-7	1,4-Dichlorobenzene	ND		250	235	94	250	233	93	1	72-128/30
75-71-8	Dichlorodifluoromethane	ND		250	277	111	250	284	114	2	23-159/30
75-34-3	1,1-Dichloroethane	ND		250	246	98	250	241	96	2	63-150/30
107-06-2	1,2-Dichloroethane	ND		250	241	96	250	236	94	2	57-150/30
75-35-4	1,1-Dichloroethene	ND		250	250	100	250	242	97	3	53-165/30
156-59-2	cis-1,2-Dichloroethene	ND		250	233	93	250	231	92	1	66-138/30
156-60-5	trans-1,2-Dichloroethene	ND		250	238	95	250	232	93	3	65-141/30
78-87-5	1,2-Dichloropropane	ND		250	250	100	250	248	99	1	76-136/30
142-28-9	1,3-Dichloropropane	ND		250	239	96	250	240	96	0	71-127/30
594-20-7	2,2-Dichloropropane	ND		250	213	85	250	203	81	5	33-175/30
563-58-6	1,1-Dichloropropene	ND		250	244	98	250	243	97	0	76-145/30

* = Outside of Control Limits.

6.3.1

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC37996-5MS	V38455.D	5	04/27/15	KD	n/a	n/a	MSV1385
MC37996-5MSD	V38456.D	5	04/27/15	KD	n/a	n/a	MSV1385
MC37996-5	V38438.D	1	04/27/15	KD	n/a	n/a	MSV1385

The QC reported here applies to the following samples: Method: SW846 8260C

MC38001-1, MC38001-2, MC38001-5, MC38001-6, MC38001-7

CAS No.	Compound	MC37996-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		250	216	86	250	219	88	1	75-137/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	224	90	250	229	92	2	77-139/30
123-91-1	1,4-Dioxane	ND		1250	769	62	1250	930	74	19	29-167/30
97-63-2	Ethyl methacrylate	ND		250	233	93	250	236	94	1	60-135/30
100-41-4	Ethylbenzene	ND		250	261	104	250	257	103	2	61-137/30
87-68-3	Hexachlorobutadiene	ND		250	217	87	250	214	86	1	59-141/30
591-78-6	2-Hexanone	ND		250	174	70	250	175	70	1	12-141/30
98-82-8	Isopropylbenzene	ND		250	265	106	250	258	103	3	64-141/30
99-87-6	p-Isopropyltoluene	ND		250	257	103	250	247	99	4	73-135/30
1634-04-4	Methyl Tert Butyl Ether	ND		250	265	106	250	257	103	3	34-160/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	221	88	250	217	87	2	47-143/30
74-95-3	Methylene bromide	ND		250	241	96	250	239	96	1	73-132/30
75-09-2	Methylene chloride	ND		250	233	93	250	223	89	4	52-154/30
91-20-3	Naphthalene	ND		250	188	75	250	187	75	1	21-185/30
103-65-1	n-Propylbenzene	ND		250	268	107	250	264	106	2	66-141/30
100-42-5	Styrene	ND		250	251	100	250	250	100	0	60-142/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	237	95	250	226	90	5	69-138/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	249	100	250	240	96	4	58-147/30
127-18-4	Tetrachloroethene	ND		250	253	101	250	251	100	1	60-140/30
108-88-3	Toluene	ND		250	242	97	250	244	98	1	74-131/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	201	80	250	202	81	0	12-184/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	210	84	250	208	83	1	30-175/30
71-55-6	1,1,1-Trichloroethane	ND		250	239	96	250	233	93	3	67-151/30
79-00-5	1,1,2-Trichloroethane	ND		250	245	98	250	247	99	1	73-134/30
79-01-6	Trichloroethene	ND		250	235	94	250	237	95	1	68-133/30
75-69-4	Trichlorofluoromethane	ND		250	283	113	250	277	111	2	40-159/30
96-18-4	1,2,3-Trichloropropane	ND		250	209	84	250	207	83	1	54-141/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	262	105	250	253	101	3	62-142/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	262	105	250	254	102	3	62-133/30
108-05-4	Vinyl Acetate	ND		250	240	96	250	238	95	1	10-169/30
75-01-4	Vinyl chloride	ND		250	250	100	250	236	94	6	29-176/30
	m,p-Xylene	ND		500	511	102	500	504	101	1	58-139/30
95-47-6	o-Xylene	ND		250	257	103	250	250	100	3	61-135/30
1330-20-7	Xylene (total)	ND		750	768	102	750	754	101	2	60-136/30

* = Outside of Control Limits.

6.3.1

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC37996-5MS	V38455.D	5	04/27/15	KD	n/a	n/a	MSV1385
MC37996-5MSD	V38456.D	5	04/27/15	KD	n/a	n/a	MSV1385
MC37996-5	V38438.D	1	04/27/15	KD	n/a	n/a	MSV1385

The QC reported here applies to the following samples: Method: SW846 8260C

MC38001-1, MC38001-2, MC38001-5, MC38001-6, MC38001-7

CAS No.	Surrogate Recoveries	MS	MSD	MC37996-5	Limits
1868-53-7	Dibromofluoromethane	102%	102%	117%	72-133%
2037-26-5	Toluene-D8	101%	101%	102%	85-114%
460-00-4	4-Bromofluorobenzene	103%	103%	99%	70-134%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

6.3.1

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC38001-3MS	V38509.D	5	04/28/15	KD	n/a	n/a	MSV1387
MC38001-3MSD	V38510.D	5	04/28/15	KD	n/a	n/a	MSV1387
MC38001-3	V38493.D	1	04/28/15	KD	n/a	n/a	MSV1387

The QC reported here applies to the following samples: Method: SW846 8260C

MC38001-2, MC38001-3, MC38001-4

CAS No.	Compound	MC38001-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250	156	62	250	173	69	10	10-135/30
107-02-8	Acrolein	ND		1250	1070	86	1250	1080	86	1	10-175/30
107-13-1	Acrylonitrile	ND		250	245	98	250	254	102	4	37-163/30
71-43-2	Benzene	ND		250	235	94	250	238	95	1	61-138/30
108-86-1	Bromobenzene	ND		250	255	102	250	261	104	2	71-126/30
74-97-5	Bromochloromethane	ND		250	230	92	250	240	96	4	70-136/30
75-27-4	Bromodichloromethane	ND		250	260	104	250	269	108	3	73-146/30
75-25-2	Bromoform	ND		250	215	86	250	224	90	4	54-147/30
74-83-9	Bromomethane	ND		250	268	107	250	269	108	0	20-171/30
78-93-3	2-Butanone (MEK)	ND		250	191	76	250	193	77	1	33-127/30
104-51-8	n-Butylbenzene	ND		250	252	101	250	260	104	3	69-138/30
135-98-8	sec-Butylbenzene	ND		250	260	104	250	266	106	2	71-137/30
98-06-6	tert-Butylbenzene	ND		250	254	102	250	264	106	4	68-137/30
75-15-0	Carbon disulfide	ND		250	230	92	250	234	94	2	29-178/30
56-23-5	Carbon tetrachloride	ND		250	250	100	250	255	102	2	57-155/30
108-90-7	Chlorobenzene	ND		250	250	100	250	255	102	2	69-126/30
75-00-3	Chloroethane	ND		250	253	101	250	259	104	2	57-182/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	ND	0* a	250	ND	0* a	nc	10-200/30
67-66-3	Chloroform	ND		250	253	101	250	257	103	2	66-142/30
74-87-3	Chloromethane	ND		250	255	102	250	257	103	1	18-182/30
95-49-8	o-Chlorotoluene	ND		250	257	103	250	261	104	2	60-145/30
106-43-4	p-Chlorotoluene	ND		250	260	104	250	264	106	2	64-138/30
124-48-1	Dibromochloromethane	ND		250	228	91	250	238	95	4	71-138/30
95-50-1	1,2-Dichlorobenzene	ND		250	237	95	250	245	98	3	75-125/30
541-73-1	1,3-Dichlorobenzene	ND		250	245	98	250	252	101	3	74-125/30
106-46-7	1,4-Dichlorobenzene	ND		250	238	95	250	246	98	3	72-128/30
75-71-8	Dichlorodifluoromethane	ND		250	278	111	250	275	110	1	23-159/30
75-34-3	1,1-Dichloroethane	ND		250	252	101	250	257	103	2	63-150/30
107-06-2	1,2-Dichloroethane	ND		250	253	101	250	259	104	2	57-150/30
75-35-4	1,1-Dichloroethene	ND		250	241	96	250	244	98	1	53-165/30
156-59-2	cis-1,2-Dichloroethene	ND		250	238	95	250	241	96	1	66-138/30
156-60-5	trans-1,2-Dichloroethene	ND		250	238	95	250	241	96	1	65-141/30
78-87-5	1,2-Dichloropropane	ND		250	259	104	250	264	106	2	76-136/30
142-28-9	1,3-Dichloropropane	ND		250	243	97	250	252	101	4	71-127/30
594-20-7	2,2-Dichloropropane	ND		250	206	82	250	204	82	1	33-175/30
563-58-6	1,1-Dichloropropene	ND		250	247	99	250	251	100	2	76-145/30

* = Outside of Control Limits.

6.3.2

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC38001-3MS	V38509.D	5	04/28/15	KD	n/a	n/a	MSV1387
MC38001-3MSD	V38510.D	5	04/28/15	KD	n/a	n/a	MSV1387
MC38001-3	V38493.D	1	04/28/15	KD	n/a	n/a	MSV1387

The QC reported here applies to the following samples: Method: SW846 8260C

MC38001-2, MC38001-3, MC38001-4

CAS No.	Compound	MC38001-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		250	222	89	250	232	93	4	75-137/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	233	93	250	242	97	4	77-139/30
123-91-1	1,4-Dioxane	ND		1250	901	72	1250	1060	85	16	29-167/30
97-63-2	Ethyl methacrylate	ND		250	241	96	250	253	101	5	60-135/30
100-41-4	Ethylbenzene	0.33	J	250	267	107	250	269	107	1	61-137/30
87-68-3	Hexachlorobutadiene	ND		250	215	86	250	229	92	6	59-141/30
591-78-6	2-Hexanone	ND		250	182	73	250	190	76	4	12-141/30
98-82-8	Isopropylbenzene	ND		250	267	107	250	273	109	2	64-141/30
99-87-6	p-Isopropyltoluene	ND		250	256	102	250	261	104	2	73-135/30
1634-04-4	Methyl Tert Butyl Ether	7.5		250	272	106	250	279	109	3	34-160/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	232	93	250	244	98	5	47-143/30
74-95-3	Methylene bromide	ND		250	249	100	250	259	104	4	73-132/30
75-09-2	Methylene chloride	ND		250	229	92	250	231	92	1	52-154/30
91-20-3	Naphthalene	ND		250	190	76	250	199	80	5	21-185/30
103-65-1	n-Propylbenzene	ND		250	273	109	250	279	112	2	66-141/30
100-42-5	Styrene	ND		250	254	102	250	259	104	2	60-142/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	231	92	250	239	96	3	69-138/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	251	100	250	261	104	4	58-147/30
127-18-4	Tetrachloroethene	ND		250	251	100	250	254	102	1	60-140/30
108-88-3	Toluene	0.35	J	250	251	100	250	253	101	1	74-131/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	198	79	250	214	86	8	12-184/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	210	84	250	220	88	5	30-175/30
71-55-6	1,1,1-Trichloroethane	ND		250	243	97	250	243	97	0	67-151/30
79-00-5	1,1,2-Trichloroethane	ND		250	256	102	250	262	105	2	73-134/30
79-01-6	Trichloroethene	ND		250	243	97	250	248	99	2	68-133/30
75-69-4	Trichlorofluoromethane	ND		250	289	116	250	292	117	1	40-159/30
96-18-4	1,2,3-Trichloropropane	ND		250	216	86	250	229	92	6	54-141/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	263	105	250	267	107	2	62-142/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	264	106	250	269	108	2	62-133/30
108-05-4	Vinyl Acetate	ND		250	253	101	250	255	102	1	10-169/30
75-01-4	Vinyl chloride	ND		250	243	97	250	246	98	1	29-176/30
	m,p-Xylene	0.57	J	500	518	103	500	525	105	1	58-139/30
95-47-6	o-Xylene	0.24	J	250	255	102	250	259	104	2	61-135/30
1330-20-7	Xylene (total)	0.82	J	750	773	103	750	784	104	1	60-136/30

* = Outside of Control Limits.

6.3.2

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC38001-3MS	V38509.D	5	04/28/15	KD	n/a	n/a	MSV1387
MC38001-3MSD	V38510.D	5	04/28/15	KD	n/a	n/a	MSV1387
MC38001-3	V38493.D	1	04/28/15	KD	n/a	n/a	MSV1387

The QC reported here applies to the following samples: Method: SW846 8260C

MC38001-2, MC38001-3, MC38001-4

CAS No.	Surrogate Recoveries	MS	MSD	MC38001-3	Limits
1868-53-7	Dibromofluoromethane	103%	102%	116%	72-133%
2037-26-5	Toluene-D8	102%	101%	102%	85-114%
460-00-4	4-Bromofluorobenzene	104%	104%	107%	70-134%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

6.3.2

Volatile Internal Standard Area Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSV1385-CC1332	Injection Date:	04/27/15
Lab File ID:	V38433.D	Injection Time:	10:01
Instrument ID:	GCMSV	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	426663	6.57	660171	7.75	333361	11.09	369815	13.30	69290	3.53
Upper Limit [a]	853326	7.07	1320342	8.25	666722	11.59	739630	13.80	138580	4.03
Lower Limit [b]	213332	6.07	330086	7.25	166681	10.59	184908	12.80	34645	3.03
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV1385-BS	426663	6.57	660171	7.75	333361	11.09	369815	13.30	69290	3.53
MSV1385-MB	359127	6.57	599651	7.75	306285	11.09	322337	13.30	64970	3.53
MC38001-7	363171	6.57	618023	7.75	315472	11.09	329492	13.30	59945	3.53
MC37996-5	397293	6.57	676622	7.75	347139	11.09	368120	13.30	69147	3.53
ZZZZZZ	335406	6.57	570911	7.75	295442	11.09	304955	13.30	52377	3.52
ZZZZZZ	351538	6.57	578647	7.75	300534	11.09	307595	13.30	53754	3.52
ZZZZZZ	342403	6.58	566410	7.76	295387	11.09	325247	13.30	55899	3.53
ZZZZZZ	351425	6.57	578380	7.75	298401	11.09	333498	13.30	70007	3.52
ZZZZZZ	348662	6.57	584821	7.75	298791	11.09	299874	13.31	55808	3.52
ZZZZZZ	327299	6.57	556553	7.76	288980	11.09	298493	13.31	51582	3.53
MC38001-1	342265	6.58	590493	7.76	309707	11.09	315810	13.31	66573	3.53
MC38001-2	461955	6.58	784387	7.76	393490	11.10	455946	13.30	192477[c]	3.54
MC38001-5	469516	6.57	712324	7.75	371035	11.09	397732	13.30	93615	3.53
MC38001-6	504994	6.57	778699	7.75	396021	11.09	422898	13.30	97357	3.53
ZZZZZZ	469335	6.57	761364	7.75	365932	11.09	407441	13.30	78546	3.53
ZZZZZZ	505302	6.57	803902	7.75	395130	11.09	433244	13.30	95871	3.53
ZZZZZZ	496333	6.57	792869	7.75	389431	11.09	427580	13.30	78061	3.53
ZZZZZZ	485755	6.57	786055	7.75	380715	11.09	426426	13.30	81560	3.53
MC37996-5MS	526901	6.57	826288	7.75	398441	11.09	430088	13.30	83296	3.53
MC37996-5MSD	516111	6.57	830294	7.75	405690	11.09	436002	13.30	88356	3.52

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Outside control limits. Target analytes not associated with this internal standard.

6.4.1

Volatile Internal Standard Area Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSV1387-CC1332	Injection Date:	04/28/15
Lab File ID:	V38486.D	Injection Time:	12:26
Instrument ID:	GCMSV	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	478562	6.56	749873	7.74	376770	11.09	402608	13.30	80303	3.52
Upper Limit [a]	957124	7.06	1499746	8.24	753540	11.59	805216	13.80	160606	4.02
Lower Limit [b]	239281	6.06	374937	7.24	188385	10.59	201304	12.80	40152	3.02
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV1387-BS	478562	6.56	749873	7.74	376770	11.09	402608	13.30	80303	3.52
MSV1387-MB	385214	6.57	624004	7.75	317691	11.09	341946	13.30	67255	3.53
ZZZZZZ	381718	6.57	628903	7.75	317816	11.09	339190	13.30	66779	3.53
ZZZZZZ	356401	6.56	600950	7.75	307314	11.09	320056	13.30	64189	3.52
ZZZZZZ	348975	6.57	587797	7.75	302596	11.09	315694	13.30	60566	3.52
MC38001-3	349793	6.56	592304	7.75	312902	11.09	330926	13.30	67410	3.52
MC38001-4	365582	6.57	591086	7.75	310567	11.09	319191	13.30	66796	3.52
ZZZZZZ	364161	6.57	597224	7.75	306880	11.09	345942	13.30	69246	3.53
ZZZZZZ	383541	6.57	618016	7.75	316356	11.09	346058	13.30	73852	3.53
ZZZZZZ	401365	6.57	649791	7.75	329719	11.09	361443	13.30	78219	3.53
MC38001-2	425504	6.56	680366	7.75	339690	11.09	361107	13.30	67671	3.52
ZZZZZZ	405526	6.57	676939	7.75	340134	11.09	365465	13.30	59701	3.53
ZZZZZZ	421008	6.57	701370	7.75	359220	11.09	371741	13.30	66832	3.53
ZZZZZZ	364293	6.56	624686	7.75	313656	11.09	325168	13.30	58106	3.52
ZZZZZZ	355386	6.57	577445	7.75	296739	11.09	309275	13.30	58512	3.52
ZZZZZZ	343707	6.57	563562	7.75	291556	11.09	304961	13.30	57947	3.53
ZZZZZZ	338372	6.56	562035	7.75	292707	11.09	303461	13.30	55423	3.52
ZZZZZZ	415288	6.56	652779	7.75	346567	11.09	353311	13.30	202780[c]	3.53
ZZZZZZ	482818	6.57	769787	7.75	390612	11.09	398274	13.30	296766[c]	3.54
MC38001-3MS	478050	6.56	761971	7.75	376770	11.09	402392	13.30	80471	3.52
MC38001-3MSD	490987	6.56	776425	7.75	382735	11.09	405455	13.30	88164	3.52

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

6.4.2

Volatile Surrogate Recovery Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8260C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC38001-1	V38445.D	117	105	102
MC38001-2	V38498.D	103	101	105
MC38001-2	V38446.D	104	106	92
MC38001-3	V38493.D	116	102	107
MC38001-4	V38494.D	112	103	103
MC38001-5	V38449.D	97	110	102
MC38001-6	V38450.D	96	107	104
MC38001-7	V38437.D	117	101	100
MC37996-5MS	V38455.D	102	101	103
MC37996-5MSD	V38456.D	102	101	103
MC38001-3MS	V38509.D	103	102	104
MC38001-3MSD	V38510.D	102	101	104
MSV1385-BS	V38433.D	104	103	100
MSV1385-MB	V38436.D	115	100	100
MSV1387-BS	V38486.D	104	103	104
MSV1387-MB	V38489.D	108	101	99

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	72-133%
S2 = Toluene-D8	85-114%
S3 = 4-Bromofluorobenzene	70-134%

6.5.1

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42730-MB	W21610.D	1	04/23/15	KD	04/19/15	OP42730	MSW924

The QC reported here applies to the following samples: Method: SW846 8270D

MC38001-1, MC38001-2, MC38001-3, MC38001-4, MC38001-5, MC38001-6

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.5	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.29	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.51	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.47	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.34	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.59	ug/l	
95-48-7	2-Methylphenol	ND	10	0.30	ug/l	
	3&4-Methylphenol	ND	10	0.44	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.47	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.35	ug/l	
108-95-2	Phenol	ND	5.0	0.32	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.45	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.45	ug/l	
62-53-3	Aniline	ND	10	0.46	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.25	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.24	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.32	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.34	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.49	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.42	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.42	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.26	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.37	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.38	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.53	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.27	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	0.29	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.27	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.24	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.32	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.24	ug/l	

Method Blank Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42730-MB	W21610.D	1	04/23/15	KD	04/19/15	OP42730	MSW924

The QC reported here applies to the following samples: Method: SW846 8270D

MC38001-1, MC38001-2, MC38001-3, MC38001-4, MC38001-5, MC38001-6

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.28	ug/l	
78-59-1	Isophorone	ND	5.0	0.47	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.36	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.40	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.51	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.48	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.25	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.25	ug/l	
110-86-1	Pyridine	ND	10	0.36	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	48%	10-79%
4165-62-2	Phenol-d5	34%	10-72%
118-79-6	2,4,6-Tribromophenol	90%	35-138%
4165-60-0	Nitrobenzene-d5	77%	30-116%
321-60-8	2-Fluorobiphenyl	73%	35-107%
1718-51-0	Terphenyl-d14	98%	43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

7.1.1

7

Method Blank Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42731-MB	I95266.D	1	04/23/15	MR	04/19/15	OP42731	MSI3564

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC38001-1, MC38001-2, MC38001-3, MC38001-4, MC38001-5, MC38001-6

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.0075	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.0084	ug/l	
120-12-7	Anthracene	ND	0.10	0.0098	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.015	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.019	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.013	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.0074	ug/l	
86-73-7	Fluorene	ND	0.10	0.015	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.020	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	0.012	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	0.011	ug/l	
85-01-8	Phenanthrene	ND	0.050	0.011	ug/l	
129-00-0	Pyrene	ND	0.10	0.0085	ug/l	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	77%	26-121%
321-60-8	2-Fluorobiphenyl	70%	28-107%
1718-51-0	Terphenyl-d14	100%	29-129%

7.1.2

7

Blank Spike Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42730-BS	W21611.D	1	04/23/15	KD	04/19/15	OP42730	MSW924

The QC reported here applies to the following samples: Method: SW846 8270D

MC38001-1, MC38001-2, MC38001-3, MC38001-4, MC38001-5, MC38001-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	50	18.8	38	10-73
95-57-8	2-Chlorophenol	50	37.0	74	47-106
59-50-7	4-Chloro-3-methyl phenol	50	46.3	93	50-111
120-83-2	2,4-Dichlorophenol	50	42.1	84	53-114
105-67-9	2,4-Dimethylphenol	50	38.8	78	23-110
51-28-5	2,4-Dinitrophenol	50	53.1	106	10-156
534-52-1	4,6-Dinitro-o-cresol	50	57.1	114	17-159
95-48-7	2-Methylphenol	50	33.8	68	40-92
	3&4-Methylphenol	100	69.3	69	38-86
88-75-5	2-Nitrophenol	50	43.3	87	53-115
100-02-7	4-Nitrophenol	50	24.2	48	10-83
87-86-5	Pentachlorophenol	50	48.0	96	41-122
108-95-2	Phenol	50	19.4	39	15-55
95-95-4	2,4,5-Trichlorophenol	50	48.8	98	52-120
88-06-2	2,4,6-Trichlorophenol	50	47.6	95	53-119
62-53-3	Aniline	50	24.2	48	26-87
101-55-3	4-Bromophenyl phenyl ether	50	49.8	100	65-127
85-68-7	Butyl benzyl phthalate	50	49.5	99	68-128
100-51-6	Benzyl Alcohol	50	36.4	73	13-108
91-58-7	2-Chloronaphthalene	50	44.3	89	58-120
106-47-8	4-Chloroaniline	50	36.3	73	48-106
111-91-1	bis(2-Chloroethoxy)methane	50	39.5	79	42-118
111-44-4	bis(2-Chloroethyl)ether	50	37.1	74	35-123
108-60-1	bis(2-Chloroisopropyl)ether	50	40.7	81	37-160
7005-72-3	4-Chlorophenyl phenyl ether	50	49.1	98	57-121
122-66-7	1,2-Diphenylhydrazine	50	42.9	86	54-128
121-14-2	2,4-Dinitrotoluene	50	55.0	110	64-127
606-20-2	2,6-Dinitrotoluene	50	50.8	102	55-135
91-94-1	3,3'-Dichlorobenzidine	50	40.7	81	49-141
132-64-9	Dibenzofuran	50	46.5	93	60-107
84-74-2	Di-n-butyl phthalate	50	49.3	99	68-117
117-84-0	Di-n-octyl phthalate	50	50.0	100	60-139
84-66-2	Diethyl phthalate	50	50.5	101	51-127
131-11-3	Dimethyl phthalate	50	49.5	99	22-147
117-81-7	bis(2-Ethylhexyl)phthalate	50	51.6	103	69-133
118-74-1	Hexachlorobenzene	50	51.6	103	62-131

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42730-BS	W21611.D	1	04/23/15	KD	04/19/15	OP42730	MSW924

The QC reported here applies to the following samples: Method: SW846 8270D

MC38001-1, MC38001-2, MC38001-3, MC38001-4, MC38001-5, MC38001-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	14.4	29	10-74
67-72-1	Hexachloroethane	50	34.6	69	15-104
78-59-1	Isophorone	50	35.9	72	44-110
88-74-4	2-Nitroaniline	50	51.8	104	63-123
99-09-2	3-Nitroaniline	50	44.3	89	63-112
100-01-6	4-Nitroaniline	50	50.7	101	58-114
98-95-3	Nitrobenzene	50	38.2	76	37-130
62-75-9	n-Nitrosodimethylamine	50	30.1	60	18-80
621-64-7	N-Nitroso-di-n-propylamine	50	38.2	76	44-128
86-30-6	N-Nitrosodiphenylamine	50	42.7	85	62-107
110-86-1	Pyridine	50	17.7	35	10-77

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	52%	10-79%
4165-62-2	Phenol-d5	38%	10-72%
118-79-6	2,4,6-Tribromophenol	107%	35-138%
4165-60-0	Nitrobenzene-d5	81%	30-116%
321-60-8	2-Fluorobiphenyl	80%	35-107%
1718-51-0	Terphenyl-d14	103%	43-135%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42731-BS	I95267.D	1	04/23/15	MR	04/19/15	OP42731	MSI3564

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC38001-1, MC38001-2, MC38001-3, MC38001-4, MC38001-5, MC38001-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	41.8	84	45-116
208-96-8	Acenaphthylene	50	39.0	78	34-110
120-12-7	Anthracene	50	45.4	91	50-117
56-55-3	Benzo(a)anthracene	50	53.0	106	55-139
50-32-8	Benzo(a)pyrene	50	55.6	111	48-131
205-99-2	Benzo(b)fluoranthene	50	50.0	100	49-141
191-24-2	Benzo(g,h,i)perylene	50	57.8	116	60-130
207-08-9	Benzo(k)fluoranthene	50	50.0	100	49-133
218-01-9	Chrysene	50	48.6	97	52-128
53-70-3	Dibenzo(a,h)anthracene	50	56.3	113	60-136
206-44-0	Fluoranthene	50	47.0	94	46-132
86-73-7	Fluorene	50	44.7	89	53-120
193-39-5	Indeno(1,2,3-cd)pyrene	50	57.9	116	57-134
90-12-0	1-Methylnaphthalene	50	38.7	77	41-105
91-57-6	2-Methylnaphthalene	50	39.1	78	36-111
85-01-8	Phenanthrene	50	44.2	88	50-120
129-00-0	Pyrene	50	46.5	93	48-127

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	82%	26-121%
321-60-8	2-Fluorobiphenyl	76%	28-107%
1718-51-0	Terphenyl-d14	104%	29-129%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42730-MS	W21612.D	1	04/23/15	KD	04/19/15	OP42730	MSW924
OP42730-MSD	W21613.D	1	04/23/15	KD	04/19/15	OP42730	MSW924
MC38000-10	W21614.D	1	04/23/15	KD	04/19/15	OP42730	MSW924

The QC reported here applies to the following samples: Method: SW846 8270D

MC38001-1, MC38001-2, MC38001-3, MC38001-4, MC38001-5, MC38001-6

CAS No.	Compound	MC38000-10 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		50	17.3	35	50	16.3	33	6	10-76/20
95-57-8	2-Chlorophenol	ND		50	37.9	76	50	37.1	74	2	37-112/20
59-50-7	4-Chloro-3-methyl phenol	ND		50	44.5	89	50	45.6	91	2	43-115/20
120-83-2	2,4-Dichlorophenol	ND		50	41.9	84	50	42.3	85	1	47-119/20
105-67-9	2,4-Dimethylphenol	ND		50	37.1	74	50	38.5	77	4	15-118/20
51-28-5	2,4-Dinitrophenol	ND		50	57.8	116	50	52.9	106	9	10-165/20
534-52-1	4,6-Dinitro-o-cresol	ND		50	59.4	119	50	59.7	119	1	13-165/20
95-48-7	2-Methylphenol	ND		50	33.0	66	50	33.0	66	0	30-99/20
	3&4-Methylphenol	ND		100	66.8	67	100	65.7	66	2	32-89/20
88-75-5	2-Nitrophenol	ND		50	43.6	87	50	43.1	86	1	44-120/20
100-02-7	4-Nitrophenol	ND		50	22.3	45	50	21.7	43	3	10-93/20
87-86-5	Pentachlorophenol	ND		50	49.3	99	50	48.5	97	2	33-131/20
108-95-2	Phenol	ND		50	18.2	36	50	18.4	37	1	15-53/20
95-95-4	2,4,5-Trichlorophenol	ND		50	49.4	99	50	49.8	100	1	45-126/20
88-06-2	2,4,6-Trichlorophenol	ND		50	47.7	95	50	49.4	99	4	45-124/20
62-53-3	Aniline	ND		50	16.8	34	50	29.4	59	55* [a]	18-91/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	52.5	105	50	53.5	107	2	57-131/20
85-68-7	Butyl benzyl phthalate	ND		50	52.8	106	50	51.5	103	2	58-135/20
100-51-6	Benzyl Alcohol	ND		50	36.2	72	50	35.3	71	3	10-109/20
91-58-7	2-Chloronaphthalene	ND		50	45.6	91	50	46.5	93	2	51-123/20
106-47-8	4-Chloroaniline	ND		50	27.2	54	50	40.4	81	39* [a]	39-109/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	40.9	82	50	40.6	81	1	36-120/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	38.6	77	50	37.4	75	3	30-124/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	42.6	85	50	41.5	83	3	25-171/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	50.7	101	50	50.7	101	0	51-122/20
122-66-7	1,2-Diphenylhydrazine	ND		50	44.4	89	50	50.9	102	14	47-130/20
121-14-2	2,4-Dinitrotoluene	ND		50	56.8	114	50	56.1	112	1	57-131/20
606-20-2	2,6-Dinitrotoluene	ND		50	52.4	105	50	52.2	104	0	52-135/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	25.3	51	50	55.9	112	75* [a]	25-157/20
132-64-9	Dibenzofuran	ND		50	47.7	95	50	47.7	95	0	54-110/20
84-74-2	Di-n-butyl phthalate	ND		50	50.7	101	50	50.6	101	0	60-122/20
117-84-0	Di-n-octyl phthalate	ND		50	55.3	111	50	53.0	106	4	54-142/20
84-66-2	Diethyl phthalate	ND		50	52.7	105	50	51.2	102	3	40-132/20
131-11-3	Dimethyl phthalate	ND		50	51.5	103	50	51.0	102	1	13-149/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		50	54.9	110	50	54.1	108	1	59-139/20
118-74-1	Hexachlorobenzene	ND		50	54.5	109	50	54.1	108	1	56-135/20

* = Outside of Control Limits.

7.3.1

7

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42730-MS	W21612.D	1	04/23/15	KD	04/19/15	OP42730	MSW924
OP42730-MSD	W21613.D	1	04/23/15	KD	04/19/15	OP42730	MSW924
MC38000-10	W21614.D	1	04/23/15	KD	04/19/15	OP42730	MSW924

The QC reported here applies to the following samples: Method: SW846 8270D

MC38001-1, MC38001-2, MC38001-3, MC38001-4, MC38001-5, MC38001-6

CAS No.	Compound	MC38000-10 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		50	16.6	33	50	16.9	34	2	10-73/20
67-72-1	Hexachloroethane	ND		50	39.7	79	50	39.3	79	1	13-103/20
78-59-1	Isophorone	ND		50	36.2	72	50	36.4	73	1	41-110/20
88-74-4	2-Nitroaniline	ND		50	53.7	107	50	54.1	108	1	57-126/20
99-09-2	3-Nitroaniline	ND		50	42.9	86	50	48.0	96	11	53-118/20
100-01-6	4-Nitroaniline	ND		50	49.7	99	50	51.8	104	4	50-119/20
98-95-3	Nitrobenzene	ND		50	39.5	79	50	39.2	78	1	35-127/20
62-75-9	n-Nitrosodimethylamine	ND		50	29.8	60	50	29.4	59	1	11-82/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	39.9	80	50	39.2	78	2	39-129/20
86-30-6	N-Nitrosodiphenylamine	ND		50	44.6	89	50	45.5	91	2	55-112/20
110-86-1	Pyridine	ND		50	18.9	38	50	25.1	50	28* [a]	15-71/20

CAS No.	Surrogate Recoveries	MS	MSD	MC38000-10	Limits
367-12-4	2-Fluorophenol	50%	49%	46%	10-79%
4165-62-2	Phenol-d5	35%	35%	32%	10-72%
118-79-6	2,4,6-Tribromophenol	110%	109%	95%	35-138%
4165-60-0	Nitrobenzene-d5	82%	80%	76%	30-116%
321-60-8	2-Fluorobiphenyl	81%	81%	74%	35-107%
1718-51-0	Terphenyl-d14	108%	106%	99%	43-135%

(a) High RPD due to possible matrix interference and/or sample non-homogeneity.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42731-MS	I95268.D	1	04/23/15	MR	04/19/15	OP42731	MSI3564
OP42731-MSD	I95269.D	1	04/23/15	MR	04/19/15	OP42731	MSI3564
MC38000-11	I95270.D	1	04/23/15	MR	04/19/15	OP42731	MSI3564

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC38001-1, MC38001-2, MC38001-3, MC38001-4, MC38001-5, MC38001-6

7.3.2

7

CAS No.	Compound	MC38000-11 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	42.2	84	50	42.4	85	0	36-124/20
208-96-8	Acenaphthylene	ND		50	39.3	79	50	39.5	79	1	25-116/20
120-12-7	Anthracene	0.017	J	50	46.3	93	50	46.0	92	1	42-122/20
56-55-3	Benzo(a)anthracene	ND		50	55.0	110	50	54.5	109	1	45-145/20
50-32-8	Benzo(a)pyrene	ND		50	58.8	118	50	56.1	112	5	40-136/20
205-99-2	Benzo(b)fluoranthene	ND		50	53.6	107	50	50.1	100	7	41-148/20
191-24-2	Benzo(g,h,i)perylene	ND		50	61.0	122	50	57.5	115	6	48-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	53.4	107	50	51.0	102	5	45-131/20
218-01-9	Chrysene	ND		50	49.8	100	50	50.1	100	1	41-135/20
53-70-3	Dibenzo(a,h)anthracene	ND		50	59.9	120	50	56.0	112	7	49-144/20
206-44-0	Fluoranthene	0.039	J	50	48.6	97	50	48.6	97	0	38-136/20
86-73-7	Fluorene	ND		50	46.0	92	50	45.2	90	2	43-127/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	61.6	123	50	57.7	115	7	45-142/20
90-12-0	1-Methylnaphthalene	ND		50	39.3	79	50	38.6	77	2	29-116/20
91-57-6	2-Methylnaphthalene	ND		50	40.2	80	50	39.8	80	1	27-117/20
85-01-8	Phenanthrene	0.025	J	50	45.4	91	50	45.3	91	0	41-126/20
129-00-0	Pyrene	0.030	J	50	48.1	96	50	48.0	96	0	41-131/20

CAS No.	Surrogate Recoveries	MS	MSD	MC38000-11	Limits
4165-60-0	Nitrobenzene-d5	83%	79%	78%	26-121%
321-60-8	2-Fluorobiphenyl	74%	74%	69%	28-107%
1718-51-0	Terphenyl-d14	106%	106%	101%	29-129%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3564-CC3561	Injection Date:	04/23/15
Lab File ID:	I95265.D	Injection Time:	08:23
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	239757	3.57	502395	4.60	291507	6.12	518482	7.43	403684	10.20	1081059	11.63
Upper Limit [a]	479514	4.07	1004790	5.10	583014	6.62	1036964	7.93	807368	10.70	2162118	12.13
Lower Limit [b]	119879	3.07	251198	4.10	145754	5.62	259241	6.93	201842	9.70	540530	11.13
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP42731-MB	231092	3.56	492621	4.60	284181	6.12	513274	7.43	392143	10.20	1046511	11.63
OP42731-BS	242479	3.57	531934	4.61	304611	6.12	563015	7.43	433344	10.21	1116322	11.63
OP42731-MS	233437	3.57	511325	4.61	293127	6.12	542941	7.43	413974	10.21	1023453	11.63
OP42731-MSD	259752	3.57	560701	4.61	319624	6.12	588280	7.43	441546	10.21	1143725	11.63
MC38000-11	233005	3.56	500244	4.60	292584	6.12	524373	7.43	407568	10.20	1083926	11.63
ZZZZZZ	239866	3.56	510191	4.60	293586	6.12	513843	7.43	413461	10.20	1106197	11.63
ZZZZZZ	212969	3.56	451349	4.60	261764	6.12	470151	7.43	379770	10.20	1032559	11.63
ZZZZZZ	261135	3.57	545440	4.60	313106	6.12	552676	7.43	408465	10.20	1069353	11.63
OP42705-MB	184067	3.56	406414	4.60	245365	6.12	456398	7.42	370264	10.20	1021040	11.63
OP42705-BS	191059	3.56	434556	4.60	254109	6.12	493952	7.43	403794	10.20	1077613	11.63
OP42705-MS	273580	3.57	597600	4.61	335589	6.12	618115	7.44	469703	10.21	1180468	11.64
OP42705-MSD	251316	3.57	545243	4.61	311493	6.12	569585	7.44	438832	10.21	1119817	11.64
MC37976-3	246108	3.57	525610	4.60	303172	6.12	551155	7.43	432846	10.20	1125703	11.64
ZZZZZZ	237200	3.57	510658	4.60	298318	6.12	532517	7.43	418899	10.20	1095316	11.63
ZZZZZZ	218068	3.56	469129	4.60	278281	6.12	504109	7.43	411987	10.20	1107447	11.63
ZZZZZZ	210228	3.57	450783	4.60	271460	6.12	499818	7.43	406583	10.20	1098419	11.63
ZZZZZZ	204619	3.56	436770	4.60	263307	6.12	494118	7.43	401397	10.20	1098361	11.63
ZZZZZZ	205491	3.56	438008	4.60	265117	6.12	488522	7.43	400792	10.20	1078044	11.63
ZZZZZZ	217605	3.56	462914	4.60	278286	6.12	514670	7.43	412774	10.20	1043398	11.63
ZZZZZZ	216748	3.56	460246	4.60	279161	6.12	518904	7.43	413324	10.20	1118359	11.63
ZZZZZZ	231702	3.56	499551	4.60	293437	6.12	516567	7.43	413740	10.20	1094590	11.63
ZZZZZZ	247934	3.56	533852	4.60	313369	6.12	509397	7.43	437440	10.20	1159648	11.63
ZZZZZZ	247170	3.56	516784	4.60	304171	6.12	499856	7.43	425782	10.20	1131609	11.63
ZZZZZZ	249578	3.56	524135	4.60	313317	6.12	507765	7.43	439595	10.20	1171693	11.63
ZZZZZZ	245594	3.56	513616	4.60	307605	6.12	531641	7.43	433896	10.20	1152524	11.63
ZZZZZZ	254108	3.56	536906	4.60	317405	6.12	560271	7.43	449774	10.20	1181350	11.63
ZZZZZZ	244037	3.56	520800	4.60	307121	6.12	516051	7.43	427357	10.20	1147582	11.63
ZZZZZZ	258263	3.56	553035	4.60	324362	6.12	527273	7.43	454277	10.20	1206653	11.63

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

7.4.1

7

Semivolatile Internal Standard Area Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3564-CC3561	Injection Date:	04/23/15
Lab File ID:	I95265.D	Injection Time:	08:23
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.4.1

7

Semivolatile Internal Standard Area Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3565-CC3561	Injection Date:	04/24/15
Lab File ID:	I95296.D	Injection Time:	08:17
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	212964	3.56	455284	4.60	271047	6.12	492887	7.43	389600	10.20	1034954	11.63
Upper Limit [a]	425928	4.06	910568	5.10	542094	6.62	985774	7.93	779200	10.70	2069908	12.13
Lower Limit [b]	106482	3.06	227642	4.10	135524	5.62	246444	6.93	194800	9.70	517477	11.13
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP42767-MB	246824	3.56	525971	4.60	311465	6.12	566061	7.43	448748	10.20	1179862	11.63
OP42767-BS	251501	3.56	562915	4.60	325350	6.12	605754	7.43	464514	10.21	1201535	11.63
OP42767-MS	238386	3.56	533270	4.60	311484	6.12	578146	7.43	445059	10.21	1163807	11.63
OP42767-MSD	213572	3.56	478525	4.60	281565	6.12	533258	7.43	421308	10.21	1123196	11.63
MC38000-22	267193	3.56	577376	4.60	340800	6.12	622323	7.43	475206	10.20	1252349	11.63
ZZZZZZ	247014	3.56	525122	4.60	308157	6.12	552273	7.43	420411	10.20	1127793	11.63
ZZZZZZ	278635	3.56	593116	4.60	344147	6.12	612993	7.43	458105	10.20	1201991	11.63
ZZZZZZ	281137	3.56	590907	4.60	347033	6.12	618669	7.43	462206	10.20	1195360	11.63
MC38001-1	257440	3.56	549417	4.60	321493	6.12	577899	7.43	441089	10.20	1179137	11.63
MC38001-2	265899	3.57	574803	4.61	361314	6.12	638487	7.44	497182	10.20	1279100	11.63
MC38001-3	275481	3.56	587552	4.60	340963	6.12	603881	7.43	464147	10.21	1151295	11.64
MC38001-4	269244	3.56	582089	4.60	344172	6.12	621593	7.43	480927	10.20	1256565	11.63
MC38001-5	262255	3.57	556695	4.60	329003	6.12	576371	7.43	447681	10.20	1137346	11.63
MC38001-6	269482	3.57	582360	4.60	348963	6.12	623107	7.44	482147	10.21	1253757	11.64
ZZZZZZ	265719	3.56	573404	4.60	339958	6.12	612817	7.43	482784	10.20	1260226	11.63
ZZZZZZ	274199	3.57	569946	4.61	343545	6.12	610713	7.43	480349	10.20	1233311	11.63
ZZZZZZ	281883	3.57	597890	4.61	352063	6.12	629069	7.43	498152	10.20	1278132	11.63
ZZZZZZ	258733	3.56	541265	4.60	311622	6.12	553606	7.43	415779	10.20	1022585	11.63

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.4.2

Semivolatile Internal Standard Area Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW924-CC902	Injection Date:	04/23/15
Lab File ID:	W21601.D	Injection Time:	08:18
Instrument ID:	GCMSW	Method:	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	288631	5.11	1101889	6.22	637784	7.76	1145647	9.05	1197242	11.60	1188230	13.28
Upper Limit [a]	577262	5.61	2203778	6.72	1275568	8.26	2291294	9.55	2394484	12.10	2376460	13.78
Lower Limit [b]	144316	4.61	550945	5.72	318892	7.26	572824	8.55	598621	11.10	594115	12.78

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP42704-MB	260192	5.10	982938	6.21	594634	7.76	1011224	9.05	1095299	11.59	1126318	13.28
OP42704-BS	283154	5.11	1058870	6.21	624535	7.76	1099492	9.05	1192747	11.59	1199863	13.28
OP42704-MS	262293	5.11	990720	6.21	590453	7.76	1029688	9.05	1123991	11.59	1159740	13.28
OP42704-MSD	246887	5.11	932208	6.21	552500	7.76	977904	9.05	1073031	11.59	1109774	13.28
MC37976-3	266963	5.10	1009476	6.21	611045	7.76	1032437	9.05	1082882	11.59	1092726	13.28
ZZZZZZ	271506	5.10	1009337	6.21	613894	7.76	1042079	9.05	1083546	11.59	1077874	13.28
ZZZZZZ	263147	5.10	1003811	6.21	600297	7.76	1055076	9.05	1156585	11.59	1208242	13.28
ZZZZZZ	262968	5.11	976377	6.21	603878	7.76	1045982	9.05	1166068	11.59	1204171	13.28
OP42730-MB	255550	5.10	965337	6.21	585775	7.76	1021983	9.05	1115788	11.59	1140718	13.28
OP42730-BS	273488	5.11	1022883	6.21	610698	7.76	1074163	9.05	1171570	11.59	1194858	13.28
OP42730-MS	300568	5.11	1130785	6.21	654560	7.76	1140391	9.05	1160911	11.59	1117432	13.28
OP42730-MSD	310140	5.11	1151589	6.21	663105	7.76	1132453	9.05	1176208	11.59	1162243	13.28
MC38000-10	273457	5.10	1040495	6.21	622558	7.76	1090143	9.05	1179181	11.59	1201203	13.28
MC38001-1	295944	5.10	1095184	6.21	647842	7.76	1106838	9.05	1166456	11.59	1161886	13.28
MC38001-2	330910	5.11	1326840	6.63	676889	7.76	1214209	9.05	1227373	11.59	1194959	13.28
MC38001-3	279076	5.10	1048982	6.21	624343	7.76	1077041	9.05	1156746	11.59	1165049	13.28
MC38001-4	269900	5.10	1020838	6.21	618569	7.76	1056845	9.05	1153791	11.59	1184731	13.28
MC38001-5	265704	5.10	991351	6.21	610580	7.76	1048247	9.05	1132389	11.59	1163368	13.28
MC38001-6	319778	5.11	1163882	6.21	705119	7.76	1152388	9.05	1150823	11.59	1152219	13.28
ZZZZZZ	281762	5.10	1064686	6.21	644048	7.76	1112210	9.05	1196158	11.59	1219802	13.28
ZZZZZZ	282681	5.11	1036953	6.21	637744	7.76	1096873	9.05	1196391	11.59	1209712	13.28
ZZZZZZ	325634	5.11	1190736	6.21	721770	7.76	1212024	9.05	1211602	11.59	1196915	13.28
ZZZZZZ	244780	5.10	928330	6.21	558473	7.76	984291	9.05	1064634	11.59	1098966	13.28
ZZZZZZ	266622	5.10	1011794	6.21	613870	7.76	1072981	9.05	1155589	11.59	1173009	13.27
ZZZZZZ	264456	5.10	980236	6.21	596159	7.76	1026221	9.04	1149097	11.59	1162378	13.27
ZZZZZZ	267619	5.10	991995	6.21	607589	7.76	1065269	9.05	1154980	11.59	1182085	13.27
ZZZZZZ	291502	5.11	1054337	6.21	647080	7.76	1072361	9.05	1126244	11.59	1107666	13.27

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

7.4.3

Semivolatile Internal Standard Area Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW924-CC902	Injection Date:	04/23/15
Lab File ID:	W21601.D	Injection Time:	08:18
Instrument ID:	GCMSW	Method:	SW846 8270D

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Surrogate Recovery Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8270D Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC38001-1	W21615.D	48	33	99	79	77	100
MC38001-2	W21616.D	16	33	109	71	79	101
MC38001-3	W21617.D	43	32	95	72	76	90
MC38001-4	W21618.D	39	27	100	68	66	97
MC38001-5	W21619.D	48	33	105	82	76	98
MC38001-6	W21620.D	44	31	109	77	76	102
OP42730-BS	W21611.D	52	38	107	81	80	103
OP42730-MB	W21610.D	48	34	90	77	73	98
OP42730-MS	W21612.D	50	35	110	82	81	108
OP42730-MSD	W21613.D	49	35	109	80	81	106

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	10-79%
S2 = Phenol-d5	10-72%
S3 = 2,4,6-Tribromophenol	35-138%
S4 = Nitrobenzene-d5	30-116%
S5 = 2-Fluorobiphenyl	35-107%
S6 = Terphenyl-d14	43-135%

Semivolatile Surrogate Recovery Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8270D BY SIM Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC38001-1	I95305.D	79	70	100
MC38001-2	I95306.D	80	65	102
MC38001-3	I95307.D	75	71	94
MC38001-4	I95308.D	68	61	101
MC38001-5	I95309.D	77	71	103
MC38001-6	I95310.D	72	68	103
OP42731-BS	I95267.D	82	76	104
OP42731-MB	I95266.D	77	70	100
OP42731-MS	I95268.D	83	74	106
OP42731-MSD	I95269.D	79	74	106

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	26-121%
S2 = 2-Fluorobiphenyl	28-107%
S3 = Terphenyl-d14	29-129%

7.5.2

7

New England ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

8

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries

Method Blank Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42706-MB	BB62824.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420

The QC reported here applies to the following samples: Method: SW846 8011

MC38001-1, MC38001-2, MC38001-3, MC38001-4, MC38001-5, MC38001-6, MC38001-8

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.0061	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.0061	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	Bromofluorobenzene (S)	138%	60-140%
460-00-4	Bromofluorobenzene (S)	135%	60-140%

8.1.1

Blank Spike Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42706-BS	BB62825.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420

The QC reported here applies to the following samples: Method: SW846 8011

MC38001-1, MC38001-2, MC38001-3, MC38001-4, MC38001-5, MC38001-6, MC38001-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.078	110	45-149
106-93-4	1,2-Dibromoethane	0.071	0.082	115	51-149

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	109%	60-140%
460-00-4	Bromofluorobenzene (S)	103%	60-140%

8.2.1

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42706-MS	BB62826.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420
OP42706-MSD	BB62827.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420
MC37976-3	BB62828.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420

The QC reported here applies to the following samples: Method: SW846 8011

MC38001-1, MC38001-2, MC38001-3, MC38001-4, MC38001-5, MC38001-6, MC38001-8

CAS No.	Compound	MC37976-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	ND		0.0672	0.078	116	0.0681	0.077	113	1	31-169/30
106-93-4	1,2-Dibromoethane	ND		0.0672	0.058	86	0.0681	0.061	90	5	34-175/30

CAS No.	Surrogate Recoveries	MS	MSD	MC37976-3	Limits
460-00-4	Bromofluorobenzene (S)	100%	102%	112%	60-140%
460-00-4	Bromofluorobenzene (S)	115%	115%	128%	60-140%

8.3.1

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8011 Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
MC38001-1	BB62834.D	121	125
MC38001-2	BB62835.D	113	143* [c]
MC38001-3	BB62836.D	93	115
MC38001-4	BB62837.D	91	93
MC38001-5	BB62838.D	102	114
MC38001-6	BB62839.D	139	157* [c]
MC38001-8	BB62840.D	112	121
OP42706-BS	BB62825.D	109	103
OP42706-MB	BB62824.D	138	135
OP42706-MS	BB62826.D	100	115
OP42706-MSD	BB62827.D	102	115

Surrogate Compounds	Recovery Limits
S1 = Bromofluorobenzene (S)	60-140%

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1
(c) Outside control limits.Sample non-detect for target analaytes.

8.4.1

GC Surrogate Retention Time Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBB3420-CC3420	Injection Date:	04/18/15
Lab File ID:	BB62822.D	Injection Time:	02:18
Instrument ID:	GCBB	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	6.89	7.25

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	BB62823.D	04/18/15	02:48	6.88	7.25
OP42706-MB	BB62824.D	04/18/15	03:17	6.88	7.25
OP42706-BS	BB62825.D	04/18/15	03:46	6.88	7.25
OP42706-MS	BB62826.D	04/18/15	04:16	6.88	7.25
OP42706-MSD	BB62827.D	04/18/15	04:45	6.88	7.25
MC37976-3	BB62828.D	04/18/15	05:14	6.88	7.25
ZZZZZZ	BB62829.D	04/18/15	05:43	6.88	7.25
ZZZZZZ	BB62830.D	04/18/15	06:11	6.88	7.25
ZZZZZZ	BB62831.D	04/18/15	06:39	6.88	7.25
ZZZZZZ	BB62832.D	04/18/15	07:07	6.88	7.25

Surrogate Compounds

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.5.1

GC Surrogate Retention Time Summary

Job Number: MC38001
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBB3420-CC3420	Injection Date:	04/18/15
Lab File ID:	BB62833.D	Injection Time:	07:35
Instrument ID:	GCBB	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	6.88	7.25

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
MC38001-1	BB62834.D	04/18/15	08:03	6.88	7.25
MC38001-2	BB62835.D	04/18/15	08:32	6.88	7.26
MC38001-3	BB62836.D	04/18/15	09:01	6.88	7.25
MC38001-4	BB62837.D	04/18/15	09:30	6.88	7.25
MC38001-5	BB62838.D	04/18/15	09:58	6.88	7.25
MC38001-6	BB62839.D	04/18/15	10:26	6.88	7.25
MC38001-8	BB62840.D	04/18/15	10:54	6.88	7.25
ZZZZZZ	BB62841.D	04/18/15	11:22	6.88	7.25
ZZZZZZ	BB62842.D	04/18/15	11:50	6.88	7.25
ZZZZZZ	BB62843.D	04/18/15	12:19	6.88	7.25

Surrogate Compounds

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.5.2

Roxana Groundwater Quarterly – 2nd Quarter 2015 Data Review

Laboratory SDG: MC38034

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 5/7/2015

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2014

Sample Identification	Sample Identification
P56-ROX-041515-EB	P56-ROX-041515
T12-ROX-041515	P74-ROX-041515
TB-ROX-041515-HCL	TB-ROX-041515-ST

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, although not indicated in the laboratory case narrative, VOCs, SVOCs, and PAHs were detected in the equipment blank. The VOC LCS recovery for vinyl acetate was outside evaluation criteria. Vinyl acetate MS/MSD recoveries were outside evaluation criteria in sample P74-ROX-041515. Tert butyl alcohol-d_9 internal standard area recovery was outside criteria in samples P56-ROX-041515 and T12-ROX-041515. Samples P56-ROX-041515 and T12-ROX-041515 were diluted due to high levels of VOCs. These issues are addressed further in the appropriate sections below. Additionally, the initial calibration verification for carbon disulfide, vinyl acetate, 2-hexanone and hexachlorocyclopentadiene exceeded 30 percent difference (%D). Continuing calibration verification for vinyl acetate exceeded 40%D, and 1,2-dibromo-3-chloropropane and 1,2-dibromoethane exceeded 15%D.

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
P56-ROX-041515-EB	VOCs	Acetone	7.9 µg/L
P56-ROX-041515-EB	SVOCs	Diethyl phthalate	0.35 µg/L
P56-ROX-041515-EB	PAHs	Benzo(g,h,i)perylene	0.024 µg/L

Blank ID	Parameter	Analyte	Concentration/ Amount
P56-ROX-041515-EB	PAHs	Pyrene	0.019 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. Please see Section 12.0 of this review for additional qualifications regarding samples associated with the equipment blank.

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS ID	Parameter	Analyte	LCS Recovery	LCS Criteria
MSN3568-BS	VOCs	Vinyl acetate	**230**	10-170

Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. No qualification of data was required.

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

Yes, although not requested, sample P74-ROX-041515 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-041515	VOCs	Vinyl acetate	**254/225**	12	10-169/30

LCS/LCSD recoveries were within evaluation criteria with the exception of those listed in Section 5.0 of this Review; no further 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	IS Criteria
P56-ROX-041515	VOCs	Tert butyl alcohol-d_9	**202780**	40152-160606
T12-ROX-041515	VOCs	Tert butyl alcohol-d_9	**296766**	40152-160606

There were no target analytes associated with tert butyl alcohol-d_9; therefore, no qualification of data was required based on tert butyl alcohol-d_9.

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

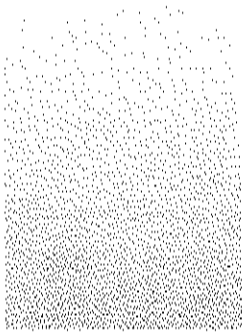
Were additional qualifications applied?

Yes, professional judgment was also used to qualify as estimated, however not reject, the following data that was associated with equipment blank P56-ROX-041515-EB, due to comparable historical detections.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
P56-ROX-041515	PAHs	Pyrene	-	**J**
T12-ROX-041515	SVOCs	Diethyl phthalate	-	**J**
T12-ROX-041515	PAHs	Pyrene	-	**J**

New England ACCUTEST LABORATORIES

05/07/15



Technical Report for

Shell Oil

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana,

Accutest Job Number: MC38034

Sampling Date: 04/15/15

Report to:

AECOM, INC.

Melissa.mansker@urs.com

ATTN: Melissa Mansker

Total number of pages in report: **94**

Reviewed on 5/7/2015

Reza Tand
Lab Director

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

Sections: 1 2 3 4 5 6 7 8

Table of Contents

Section 1: Sample Summary 3
Section 2: Case Narrative/Conformance Summary 4
Section 3: Summary of Hits 6
Section 4: Sample Results 8
4.1: MC38034-1: P56-ROX-041515-EB 9
4.2: MC38034-2: P56-ROX-041515 16
4.3: MC38034-3: T12-ROX-041515 23
4.4: MC38034-4: P74-ROX-041515 30
4.5: MC38034-5: TB-ROX-041515-HCL 37
4.6: MC38034-6: TB-ROX-041515-ST 40
Section 5: Misc. Forms 41
5.1: Chain of Custody 42
5.2: Sample Tracking Chronicle 44
5.3: Internal Chain of Custody 46
Section 6: GC/MS Volatiles - QC Data Summaries 48
6.1: Method Blank Summary 49
6.2: Blank Spike Summary 55
6.3: Matrix Spike/Matrix Spike Duplicate Summary 61
6.4: Internal Standard Area Summaries 67
6.5: Surrogate Recovery Summaries 69
Section 7: GC/MS Semi-volatiles - QC Data Summaries 70
7.1: Method Blank Summary 71
7.2: Blank Spike Summary 74
7.3: Matrix Spike/Matrix Spike Duplicate Summary 77
7.4: Internal Standard Area Summaries 80
7.5: Surrogate Recovery Summaries 85
Section 8: GC Volatiles - QC Data Summaries 87
8.1: Method Blank Summary 88
8.2: Blank Spike Summary 89
8.3: Matrix Spike/Matrix Spike Duplicate Summary 90
8.4: Surrogate Recovery Summaries 91
8.5: GC Surrogate Retention Time Summaries 92

Sample Summary

Shell Oil

Job No: MC38034

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
MC38034-1	04/15/15	10:00 ESDC	04/16/15	AQ	Equipment Blank	P56-ROX-041515-EB
MC38034-2	04/15/15	12:00 ESDC	04/16/15	AQ	Ground Water	P56-ROX-041515
MC38034-3	04/15/15	13:10 ESDC	04/16/15	AQ	Ground Water	T12-ROX-041515
MC38034-4	04/15/15	15:40 ESDC	04/16/15	AQ	Ground Water	P74-ROX-041515
MC38034-5	04/15/15	00:00 ESDC	04/16/15	AQ	Trip Blank Water	TB-ROX-041515-HCL
MC38034-6	04/15/15	00:00 ESDC	04/16/15	AQ	Trip Blank Water	TB-ROX-041515-ST

ACCUTEST LABORATORIES

2

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	MC38034
Site:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central	**Report Date**	4/30/2015 1:30:59 PM

4 Sample(s), 2 Trip Blank(s) and 0 Field Blank(s) were collected on 04/15/2015 and were received at Accutest on 04/16/2015 properly preserved, at 2.2 Deg. C and intact. These Samples received an Accutest job number of MC38034. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.
1-Chlorohexane, Benzenethiol, Dibenz(a,h)acridine, Indene, and Quinoline were searched in the library search and reported only if detections were found.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix: AQ	Batch ID: MSN3568

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC38034-4MS, MC38034-4MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- MC38034-4MS/MSD Recovery(s) for Vinyl Acetate are outside control limits. Outside control limits. Associated samples are non-detect for this compound.
- MSN3568-BS for Vinyl Acetate: Outside control limits. Associated samples are non-detect for this compound.
- Initial calibration verification standard MSN3567-ICV3567 for carbon disulfide, vinyl acetate exceed 30% Difference (response biased high). Associated samples are non-detect for these compounds.
- Continuing calibration check standard MSN3568-CC3567 and MSN3568-ECC3567 for vinyl acetate exceed 40% Difference. (Results biased high). Samples are non-detect for these compounds.

Matrix: AQ	Batch ID: MSV1387

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC38001-3MS, MC38001-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- MC38001-3MS/MSD Recovery(s) for 2-Chloroethyl vinyl ether are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Initial calibration verification standard MSV1332-ICV1332 for 2-hexanone exceed 30% Difference (response biased high). Associated samples are non-detect for these compounds.
- MC38034-2, 3 have internal standard recovery(s) outside control limits. Outside control limits due to possible matrix interference. Confirmed by reanalysis.

Extractables by GCMS By Method SW846 8270D

Matrix: AQ	Batch ID: OP42730

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC38000-10MS, MC38000-10MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- RPD(s) for MSD for 3,3'-Dichlorobenzidine, 4-Chloroaniline, Aniline, Pyridine are outside control limits for sample OP42730-MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.
- Initial calibration verification MSW902-ICV902 for Hexachlorocyclopentadiene exceeds 30% Difference. Hexachlorocyclopentadiene is within criteria in continuing calibration check MSW924-CC902.

Extractables by GCMS By Method SW846 8270D BY SIM

Matrix: AQ	Batch ID: OP42731

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC38000-11MS, MC38000-11MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8011

Matrix: AQ	Batch ID: OP42706

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC37976-3MS, MC37976-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Continuing calibration check standard GBB3420-ECC3420 for 1,2-Dibromo-3-chloropropane exceed 15% Difference (results biased high). Associated samples are non-detect for these compounds.
- Continuing calibration check standard GBB3420-CC3420, file BB62833, file BB62844, file BB62847, signal #1 for 1,2-Dibromoethane exceed 15% Difference. 1,2-Dibromoethane in associated sample is reported from signal #2.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC38034).

Summary of Hits

Job Number: MC38034
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Collected: 04/15/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC38034-1	P56-ROX-041515-EB					
Acetone		7.9 J	10	2.0	ug/l	SW846 8260C
Diethyl phthalate		0.35 J	5.2	0.28	ug/l	SW846 8270D
Benzo(g,h,i)perylene		0.024 J	0.10	0.013	ug/l	SW846 8270D BY SIM
Pyrene		0.019 J	0.10	0.0089	ug/l	SW846 8270D BY SIM
MC38034-2	P56-ROX-041515					
Benzene		96.5	0.50	0.27	ug/l	SW846 8260C
n-Butylbenzene		2.8 J	5.0	0.50	ug/l	SW846 8260C
sec-Butylbenzene		4.2 J	5.0	0.50	ug/l	SW846 8260C
Ethylbenzene		624	20	4.8	ug/l	SW846 8260C
Isopropylbenzene		76.8	5.0	0.27	ug/l	SW846 8260C
p-Isopropyltoluene		3.3 J	5.0	0.32	ug/l	SW846 8260C
Naphthalene		75.4	5.0	2.0	ug/l	SW846 8260C
n-Propylbenzene		91.8	5.0	0.29	ug/l	SW846 8260C
Toluene		68.0	1.0	0.29	ug/l	SW846 8260C
1,2,4-Trimethylbenzene		189	5.0	0.29	ug/l	SW846 8260C
1,3,5-Trimethylbenzene		45.4	5.0	0.20	ug/l	SW846 8260C
m,p-Xylene		737	1.0	0.47	ug/l	SW846 8260C
o-Xylene		12.4	1.0	0.22	ug/l	SW846 8260C
Xylene (total)		749	1.0	0.22	ug/l	SW846 8260C
2,4-Dimethylphenol		2.6 J	11	0.37	ug/l	SW846 8270D
3&4-Methylphenol		1.1 J	11	0.48	ug/l	SW846 8270D
Dibenzofuran		0.55 J	2.2	0.27	ug/l	SW846 8270D
bis(2-Ethylhexyl)phthalate		0.38 J	2.2	0.35	ug/l	SW846 8270D
Acenaphthene		0.61	0.11	0.0082	ug/l	SW846 8270D BY SIM
Acenaphthylene		0.10 J	0.11	0.0091	ug/l	SW846 8270D BY SIM
Anthracene		0.13	0.11	0.011	ug/l	SW846 8270D BY SIM
Fluorene		0.41	0.11	0.016	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		26.0	2.2	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		29.3	2.2	0.012	ug/l	SW846 8270D BY SIM
Phenanthrene		1.3	0.054	0.012	ug/l	SW846 8270D BY SIM
Pyrene		0.027 J J	0.11	0.0092	ug/l	SW846 8270D BY SIM
MC38034-3	T12-ROX-041515					
Benzene		1690	25	14	ug/l	SW846 8260C
n-Butylbenzene		9.4	5.0	0.50	ug/l	SW846 8260C
sec-Butylbenzene		4.5 J	5.0	0.50	ug/l	SW846 8260C
Ethylbenzene		1340	50	12	ug/l	SW846 8260C
Isopropylbenzene		66.2	5.0	0.27	ug/l	SW846 8260C
p-Isopropyltoluene		2.5 J	5.0	0.32	ug/l	SW846 8260C
Naphthalene		131	5.0	2.0	ug/l	SW846 8260C

Summary of Hits

Job Number: MC38034
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Collected: 04/15/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
n-Propylbenzene		117	5.0	0.29	ug/l	SW846 8260C
Toluene		658	50	15	ug/l	SW846 8260C
1,2,4-Trimethylbenzene		331	5.0	0.29	ug/l	SW846 8260C
1,3,5-Trimethylbenzene		54.3	5.0	0.20	ug/l	SW846 8260C
m,p-Xylene		1620	50	23	ug/l	SW846 8260C
o-Xylene		177	1.0	0.22	ug/l	SW846 8260C
Xylene (total)		1620	50	11	ug/l	SW846 8260C
2,4-Dimethylphenol		4.4 J	11	0.38	ug/l	SW846 8270D
2-Methylphenol		2.1 J	11	0.33	ug/l	SW846 8270D
3&4-Methylphenol		4.2 J	11	0.49	ug/l	SW846 8270D
Phenol		9.9	5.6	0.36	ug/l	SW846 8270D
Dibenzofuran		0.33 J	2.2	0.27	ug/l	SW846 8270D
Di-n-butyl phthalate		0.33 J	5.6	0.30	ug/l	SW846 8270D
Diethyl phthalate		0.36 J J	5.6	0.30	ug/l	SW846 8270D
Acenaphthene		0.36	0.11	0.0083	ug/l	SW846 8270D BY SIM
Acenaphthylene		0.065 J	0.11	0.0093	ug/l	SW846 8270D BY SIM
Anthracene		0.11	0.11	0.011	ug/l	SW846 8270D BY SIM
Fluoranthene		0.024 J	0.11	0.0082	ug/l	SW846 8270D BY SIM
Fluorene		0.32	0.11	0.017	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		21.0	2.2	0.014	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		33.5	2.2	0.012	ug/l	SW846 8270D BY SIM
Phenanthrene		0.86	0.056	0.012	ug/l	SW846 8270D BY SIM
Pyrene		0.052 J J	0.11	0.0094	ug/l	SW846 8270D BY SIM
MC38034-4	P74-ROX-041515					
Benzene		32.0	0.50	0.27	ug/l	SW846 8260C
Ethylbenzene		5.8	1.0	0.24	ug/l	SW846 8260C
p-Isopropyltoluene		0.33 J	5.0	0.32	ug/l	SW846 8260C
n-Propylbenzene		0.42 J	5.0	0.29	ug/l	SW846 8260C
Toluene		1.3	1.0	0.29	ug/l	SW846 8260C
1,2,4-Trimethylbenzene		8.6	5.0	0.29	ug/l	SW846 8260C
1,3,5-Trimethylbenzene		4.4 J	5.0	0.20	ug/l	SW846 8260C
m,p-Xylene		20.2	1.0	0.47	ug/l	SW846 8260C
o-Xylene		1.2	1.0	0.22	ug/l	SW846 8260C
Xylene (total)		21.4	1.0	0.22	ug/l	SW846 8260C
MC38034-5	TB-ROX-041515-HCL					
No hits reported in this sample.						
MC38034-6	TB-ROX-041515-ST					
No hits reported in this sample.						

New England ACCUTEST LABORATORIES

4

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	P56-ROX-041515-EB		
Lab Sample ID:	MC38034-1	Date Sampled:	04/15/15
Matrix:	AQ - Equipment Blank	Date Received:	04/16/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38492.D	1	04/28/15	KD	n/a	n/a	MSV1387
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	7.9	10	2.0	ug/l	J
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P56-ROX-041515-EB		
Lab Sample ID:	MC38034-1	Date Sampled:	04/15/15
Matrix:	AQ - Equipment Blank	Date Received:	04/16/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P56-ROX-041515-EB		
Lab Sample ID:	MC38034-1	Date Sampled:	04/15/15
Matrix:	AQ - Equipment Blank	Date Received:	04/16/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	117%		72-133%
2037-26-5	Toluene-D8	102%		85-114%
460-00-4	4-Bromofluorobenzene	101%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P56-ROX-041515-EB		
Lab Sample ID:	MC38034-1	Date Sampled:	04/15/15
Matrix:	AQ - Equipment Blank	Date Received:	04/16/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21621.D	1	04/23/15	KD	04/19/15	OP42730	MSW924
Run #2							

	Initial Volume	Final Volume
Run #1	960 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.2	0.30	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.53	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.49	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.35	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.61	ug/l	
95-48-7	2-Methylphenol	ND	10	0.31	ug/l	
	3&4-Methylphenol	ND	10	0.46	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.48	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.36	ug/l	
108-95-2	Phenol	ND	5.2	0.33	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.47	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.47	ug/l	
62-53-3	Aniline	ND	10	0.48	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	0.25	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.34	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.2	0.36	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.37	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	0.51	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	0.44	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	0.44	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	0.27	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.2	0.31	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.39	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.39	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	0.55	ug/l	
132-64-9	Dibenzofuran	ND	2.1	0.26	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.2	0.28	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.2	0.30	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P56-ROX-041515-EB		
Lab Sample ID:	MC38034-1	Date Sampled:	04/15/15
Matrix:	AQ - Equipment Blank	Date Received:	04/16/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	0.35	5.2	0.28	ug/l	J
131-11-3	Dimethyl phthalate	ND	5.2	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.33	ug/l	
118-74-1	Hexachlorobenzene	ND	5.2	0.26	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.2	0.30	ug/l	
78-59-1	Isophorone	ND	5.2	0.49	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.37	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.42	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.54	ug/l	
98-95-3	Nitrobenzene	ND	5.2	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	0.27	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	0.26	ug/l	
110-86-1	Pyridine	ND	10	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	37%		10-79%
4165-62-2	Phenol-d5	26%		10-72%
118-79-6	2,4,6-Tribromophenol	92%		35-138%
4165-60-0	Nitrobenzene-d5	68%		30-116%
321-60-8	2-Fluorobiphenyl	66%		35-107%
1718-51-0	Terphenyl-d14	98%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P56-ROX-041515-EB		
Lab Sample ID:	MC38034-1	Date Sampled:	04/15/15
Matrix:	AQ - Equipment Blank	Date Received:	04/16/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95311.D	1	04/24/15	MR	04/19/15	OP42731	MSI3565
Run #2							

	Initial Volume	Final Volume
Run #1	960 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.0078	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.0088	ug/l	
120-12-7	Anthracene	ND	0.10	0.010	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.052	0.025	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.052	0.020	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.024	0.10	0.013	ug/l	J
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.016	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.0077	ug/l	
86-73-7	Fluorene	ND	0.10	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.021	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.1	0.013	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.1	0.011	ug/l	
85-01-8	Phenanthrene	ND	0.052	0.011	ug/l	
129-00-0	Pyrene	0.019	0.10	0.0089	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	69%		26-121%
321-60-8	2-Fluorobiphenyl	61%		28-107%
1718-51-0	Terphenyl-d14	100%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P56-ROX-041515-EB		
Lab Sample ID:	MC38034-1	Date Sampled:	04/15/15
Matrix:	AQ - Equipment Blank	Date Received:	04/16/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62841.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	36.4 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0059	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0059	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	112%		60-140%
460-00-4	Bromofluorobenzene (S)	125%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P56-ROX-041515		
Lab Sample ID:	MC38034-2	Date Sampled:	04/15/15
Matrix:	AQ - Ground Water	Date Received:	04/16/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38506.D	1	04/28/15	KD	n/a	n/a	MSV1387
Run #2	N96919.D	20	04/29/15	JB	n/a	n/a	MSN3568

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	96.5	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	2.8	5.0	0.50	ug/l	J
135-98-8	sec-Butylbenzene	4.2	5.0	0.50	ug/l	J
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P56-ROX-041515		
Lab Sample ID:	MC38034-2	Date Sampled:	04/15/15
Matrix:	AQ - Ground Water	Date Received:	04/16/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	624 [a]	20	4.8	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	76.8	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	3.3	5.0	0.32	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	75.4	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	91.8	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	68.0	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	189	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	45.4	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	737	1.0	0.47	ug/l	
95-47-6	o-Xylene	12.4	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	749	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P56-ROX-041515		
Lab Sample ID:	MC38034-2	Date Sampled:	04/15/15
Matrix:	AQ - Ground Water	Date Received:	04/16/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%	99%	72-133%
2037-26-5	Toluene-D8	107%	100%	85-114%
460-00-4	4-Bromofluorobenzene	105%	94%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P56-ROX-041515		
Lab Sample ID:	MC38034-2	Date Sampled:	04/15/15
Matrix:	AQ - Ground Water	Date Received:	04/16/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21622.D	1	04/23/15	KD	04/19/15	OP42730	MSW924
Run #2							

	Initial Volume	Final Volume
Run #1	920 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	2.7	ug/l	
95-57-8	2-Chlorophenol	ND	5.4	0.32	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.51	ug/l	
105-67-9	2,4-Dimethylphenol	2.6	11	0.37	ug/l	J
51-28-5	2,4-Dinitrophenol	ND	22	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	0.64	ug/l	
95-48-7	2-Methylphenol	ND	11	0.33	ug/l	
	3&4-Methylphenol	1.1	11	0.48	ug/l	J
88-75-5	2-Nitrophenol	ND	11	0.51	ug/l	
100-02-7	4-Nitrophenol	ND	22	1.4	ug/l	
87-86-5	Pentachlorophenol	ND	11	0.38	ug/l	
108-95-2	Phenol	ND	5.4	0.35	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.49	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.49	ug/l	
62-53-3	Aniline	ND	11	0.50	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.4	0.27	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.4	0.26	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.35	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.4	0.37	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.39	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.4	0.54	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.4	0.45	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.4	0.46	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.4	0.28	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.4	0.32	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.40	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.41	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.4	0.58	ug/l	
132-64-9	Dibenzofuran	0.55	2.2	0.27	ug/l	J
84-74-2	Di-n-butyl phthalate	ND	5.4	0.29	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.4	0.31	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P56-ROX-041515		
Lab Sample ID:	MC38034-2	Date Sampled:	04/15/15
Matrix:	AQ - Ground Water	Date Received:	04/16/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.4	0.29	ug/l	
131-11-3	Dimethyl phthalate	ND	5.4	0.26	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	0.38	2.2	0.35	ug/l	J
118-74-1	Hexachlorobenzene	ND	5.4	0.27	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.4	ug/l	
67-72-1	Hexachloroethane	ND	5.4	0.31	ug/l	
78-59-1	Isophorone	ND	5.4	0.51	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.39	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.44	ug/l	
100-01-6	4-Nitroaniline	ND	11	0.56	ug/l	
98-95-3	Nitrobenzene	ND	5.4	0.53	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.4	0.27	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.4	0.28	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.4	0.27	ug/l	
110-86-1	Pyridine	ND	11	0.39	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	55%		10-79%
4165-62-2	Phenol-d5	37%		10-72%
118-79-6	2,4,6-Tribromophenol	106%		35-138%
4165-60-0	Nitrobenzene-d5	81%		30-116%
321-60-8	2-Fluorobiphenyl	77%		35-107%
1718-51-0	Terphenyl-d14	97%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P56-ROX-041515		
Lab Sample ID:	MC38034-2	Date Sampled:	04/15/15
Matrix:	AQ - Ground Water	Date Received:	04/16/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95312.D	1	04/24/15	MR	04/19/15	OP42731	MSI3565
Run #2							

	Initial Volume	Final Volume
Run #1	920 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.61	0.11	0.0082	ug/l	
208-96-8	Acenaphthylene	0.10	0.11	0.0091	ug/l	J
120-12-7	Anthracene	0.13	0.11	0.011	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.054	0.026	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.054	0.021	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.014	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.011	ug/l	
218-01-9	Chrysene	ND	0.11	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.016	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.0080	ug/l	
86-73-7	Fluorene	0.41	0.11	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.022	ug/l	
90-12-0	1-Methylnaphthalene	26.0	2.2	0.013	ug/l	
91-57-6	2-Methylnaphthalene	29.3	2.2	0.012	ug/l	
85-01-8	Phenanthrene	1.3	0.054	0.012	ug/l	
129-00-0	Pyrene	0.027 J	0.11	0.0092	ug/l	J J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	80%		26-121%
321-60-8	2-Fluorobiphenyl	71%		28-107%
1718-51-0	Terphenyl-d14	102%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P56-ROX-041515		
Lab Sample ID:	MC38034-2	Date Sampled:	04/15/15
Matrix:	AQ - Ground Water	Date Received:	04/16/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62842.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	36.7 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0058	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0058	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	112%		60-140%
460-00-4	Bromofluorobenzene (S)	126%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	T12-ROX-041515		
Lab Sample ID:	MC38034-3	Date Sampled:	04/15/15
Matrix:	AQ - Ground Water	Date Received:	04/16/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38507.D	1	04/28/15	KD	n/a	n/a	MSV1387
Run #2	N96920.D	50	04/29/15	JB	n/a	n/a	MSN3568

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	1690 [a]	25	14	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	9.4	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	4.5	5.0	0.50	ug/l	J
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	T12-ROX-041515		
Lab Sample ID:	MC38034-3	Date Sampled:	04/15/15
Matrix:	AQ - Ground Water	Date Received:	04/16/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	1340 [a]	50	12	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	66.2	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	2.5	5.0	0.32	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	131	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	117	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	658 [a]	50	15	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	331	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	54.3	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	1620 [a]	50	23	ug/l	
95-47-6	o-Xylene	177	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	1620 [a]	50	11	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	T12-ROX-041515		
Lab Sample ID:	MC38034-3	Date Sampled:	04/15/15
Matrix:	AQ - Ground Water	Date Received:	04/16/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%	102%	72-133%
2037-26-5	Toluene-D8	103%	100%	85-114%
460-00-4	4-Bromofluorobenzene	105%	93%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	T12-ROX-041515		
Lab Sample ID:	MC38034-3	Date Sampled:	04/15/15
Matrix:	AQ - Ground Water	Date Received:	04/16/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21623.D	1	04/23/15	KD	04/19/15	OP42730	MSW924
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	2.8	ug/l	
95-57-8	2-Chlorophenol	ND	5.6	0.32	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.56	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.52	ug/l	
105-67-9	2,4-Dimethylphenol	4.4	11	0.38	ug/l	J
51-28-5	2,4-Dinitrophenol	ND	22	2.8	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	0.65	ug/l	
95-48-7	2-Methylphenol	2.1	11	0.33	ug/l	J
	3&4-Methylphenol	4.2	11	0.49	ug/l	J
88-75-5	2-Nitrophenol	ND	11	0.52	ug/l	
100-02-7	4-Nitrophenol	ND	22	1.4	ug/l	
87-86-5	Pentachlorophenol	ND	11	0.38	ug/l	
108-95-2	Phenol	9.9	5.6	0.36	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.50	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.50	ug/l	
62-53-3	Aniline	ND	11	0.51	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.6	0.28	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.6	0.27	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.36	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.6	0.38	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.40	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.6	0.55	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.6	0.46	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.6	0.47	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.6	0.29	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.6	0.33	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.41	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.42	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.6	0.59	ug/l	
132-64-9	Dibenzofuran	0.33	2.2	0.27	ug/l	J
84-74-2	Di-n-butyl phthalate	0.33	5.6	0.30	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.6	0.32	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	T12-ROX-041515		
Lab Sample ID:	MC38034-3	Date Sampled:	04/15/15
Matrix:	AQ - Ground Water	Date Received:	04/16/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	0.36 J	5.6	0.30	ug/l	J J
131-11-3	Dimethyl phthalate	ND	5.6	0.27	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.35	ug/l	
118-74-1	Hexachlorobenzene	ND	5.6	0.27	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.4	ug/l	
67-72-1	Hexachloroethane	ND	5.6	0.32	ug/l	
78-59-1	Isophorone	ND	5.6	0.52	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.40	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.45	ug/l	
100-01-6	4-Nitroaniline	ND	11	0.57	ug/l	
98-95-3	Nitrobenzene	ND	5.6	0.54	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.6	0.28	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.6	0.28	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.6	0.28	ug/l	
110-86-1	Pyridine	ND	11	0.40	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	55%		10-79%
4165-62-2	Phenol-d5	33%		10-72%
118-79-6	2,4,6-Tribromophenol	107%		35-138%
4165-60-0	Nitrobenzene-d5	81%		30-116%
321-60-8	2-Fluorobiphenyl	77%		35-107%
1718-51-0	Terphenyl-d14	105%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	T12-ROX-041515		
Lab Sample ID:	MC38034-3	Date Sampled:	04/15/15
Matrix:	AQ - Ground Water	Date Received:	04/16/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95313.D	1	04/24/15	MR	04/19/15	OP42731	MSI3565
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.36	0.11	0.0083	ug/l	
208-96-8	Acenaphthylene	0.065	0.11	0.0093	ug/l	J
120-12-7	Anthracene	0.11	0.11	0.011	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.056	0.026	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.056	0.021	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.014	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.011	ug/l	
218-01-9	Chrysene	ND	0.11	0.015	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.017	ug/l	
206-44-0	Fluoranthene	0.024	0.11	0.0082	ug/l	J
86-73-7	Fluorene	0.32	0.11	0.017	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.023	ug/l	
90-12-0	1-Methylnaphthalene	21.0	2.2	0.014	ug/l	
91-57-6	2-Methylnaphthalene	33.5	2.2	0.012	ug/l	
85-01-8	Phenanthrene	0.86	0.056	0.012	ug/l	
129-00-0	Pyrene	0.052 J	0.11	0.0094	ug/l	J J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	78%		26-121%
321-60-8	2-Fluorobiphenyl	71%		28-107%
1718-51-0	Terphenyl-d14	104%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	T12-ROX-041515		
Lab Sample ID:	MC38034-3	Date Sampled:	04/15/15
Matrix:	AQ - Ground Water	Date Received:	04/16/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62843.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	36.8 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0058	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0058	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	107%		60-140%
460-00-4	Bromofluorobenzene (S)	136%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P74-ROX-041515		
Lab Sample ID:	MC38034-4	Date Sampled:	04/15/15
Matrix:	AQ - Ground Water	Date Received:	04/16/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N96917.D	1	04/29/15	JB	n/a	n/a	MSN3568
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	32.0	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P74-ROX-041515		
Lab Sample ID:	MC38034-4	Date Sampled:	04/15/15
Matrix:	AQ - Ground Water	Date Received:	04/16/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	5.8	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	0.33	5.0	0.32	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	0.42	5.0	0.29	ug/l	J
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	1.3	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	8.6	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	4.4	5.0	0.20	ug/l	J
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	20.2	1.0	0.47	ug/l	
95-47-6	o-Xylene	1.2	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	21.4	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P74-ROX-041515		
Lab Sample ID:	MC38034-4	Date Sampled:	04/15/15
Matrix:	AQ - Ground Water	Date Received:	04/16/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		72-133%
2037-26-5	Toluene-D8	99%		85-114%
460-00-4	4-Bromofluorobenzene	95%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P74-ROX-041515		
Lab Sample ID:	MC38034-4	Date Sampled:	04/15/15
Matrix:	AQ - Ground Water	Date Received:	04/16/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21624.D	1	04/23/15	KD	04/19/15	OP42730	MSW924
Run #2							

	Initial Volume	Final Volume
Run #1	960 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.2	0.30	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.53	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.49	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.35	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.61	ug/l	
95-48-7	2-Methylphenol	ND	10	0.31	ug/l	
	3&4-Methylphenol	ND	10	0.46	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.48	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.36	ug/l	
108-95-2	Phenol	ND	5.2	0.33	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.47	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.47	ug/l	
62-53-3	Aniline	ND	10	0.48	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	0.25	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.34	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.2	0.36	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.37	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	0.51	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	0.44	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	0.44	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	0.27	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.2	0.31	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.39	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.39	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	0.55	ug/l	
132-64-9	Dibenzofuran	ND	2.1	0.26	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.2	0.28	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.2	0.30	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P74-ROX-041515		
Lab Sample ID:	MC38034-4	Date Sampled:	04/15/15
Matrix:	AQ - Ground Water	Date Received:	04/16/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.2	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	5.2	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.33	ug/l	
118-74-1	Hexachlorobenzene	ND	5.2	0.26	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.2	0.30	ug/l	
78-59-1	Isophorone	ND	5.2	0.49	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.37	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.42	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.54	ug/l	
98-95-3	Nitrobenzene	ND	5.2	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	0.27	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	0.26	ug/l	
110-86-1	Pyridine	ND	10	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	45%		10-79%
4165-62-2	Phenol-d5	31%		10-72%
118-79-6	2,4,6-Tribromophenol	99%		35-138%
4165-60-0	Nitrobenzene-d5	81%		30-116%
321-60-8	2-Fluorobiphenyl	80%		35-107%
1718-51-0	Terphenyl-d14	98%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P74-ROX-041515		
Lab Sample ID:	MC38034-4	Date Sampled:	04/15/15
Matrix:	AQ - Ground Water	Date Received:	04/16/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95314.D	1	04/24/15	MR	04/19/15	OP42731	MSI3565
Run #2							

	Initial Volume	Final Volume
Run #1	960 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.0078	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.0088	ug/l	
120-12-7	Anthracene	ND	0.10	0.010	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.052	0.025	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.052	0.020	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.016	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.0077	ug/l	
86-73-7	Fluorene	ND	0.10	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.021	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.1	0.013	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.1	0.011	ug/l	
85-01-8	Phenanthrene	ND	0.052	0.011	ug/l	
129-00-0	Pyrene	ND	0.10	0.0089	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	82%		26-121%
321-60-8	2-Fluorobiphenyl	74%		28-107%
1718-51-0	Terphenyl-d14	103%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P74-ROX-041515		
Lab Sample ID:	MC38034-4	Date Sampled:	04/15/15
Matrix:	AQ - Ground Water	Date Received:	04/16/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62845.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	36.7 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0058	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0058	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	114%		60-140%
460-00-4	Bromofluorobenzene (S)	116%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-041515-HCL		
Lab Sample ID:	MC38034-5	Date Sampled:	04/15/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/16/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38491.D	1	04/28/15	KD	n/a	n/a	MSV1387
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-041515-HCL		
Lab Sample ID:	MC38034-5	Date Sampled:	04/15/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/16/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-041515-HCL		
Lab Sample ID:	MC38034-5	Date Sampled:	04/15/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/16/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	115%		72-133%
2037-26-5	Toluene-D8	100%		85-114%
460-00-4	4-Bromofluorobenzene	101%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-041515-ST		
Lab Sample ID:	MC38034-6	Date Sampled:	04/15/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/16/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62846.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420
Run #2							

	Initial Volume	Final Volume
Run #1	36.1 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.0059	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.0059	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	106%		60-140%
460-00-4	Bromofluorobenzene (S)	113%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

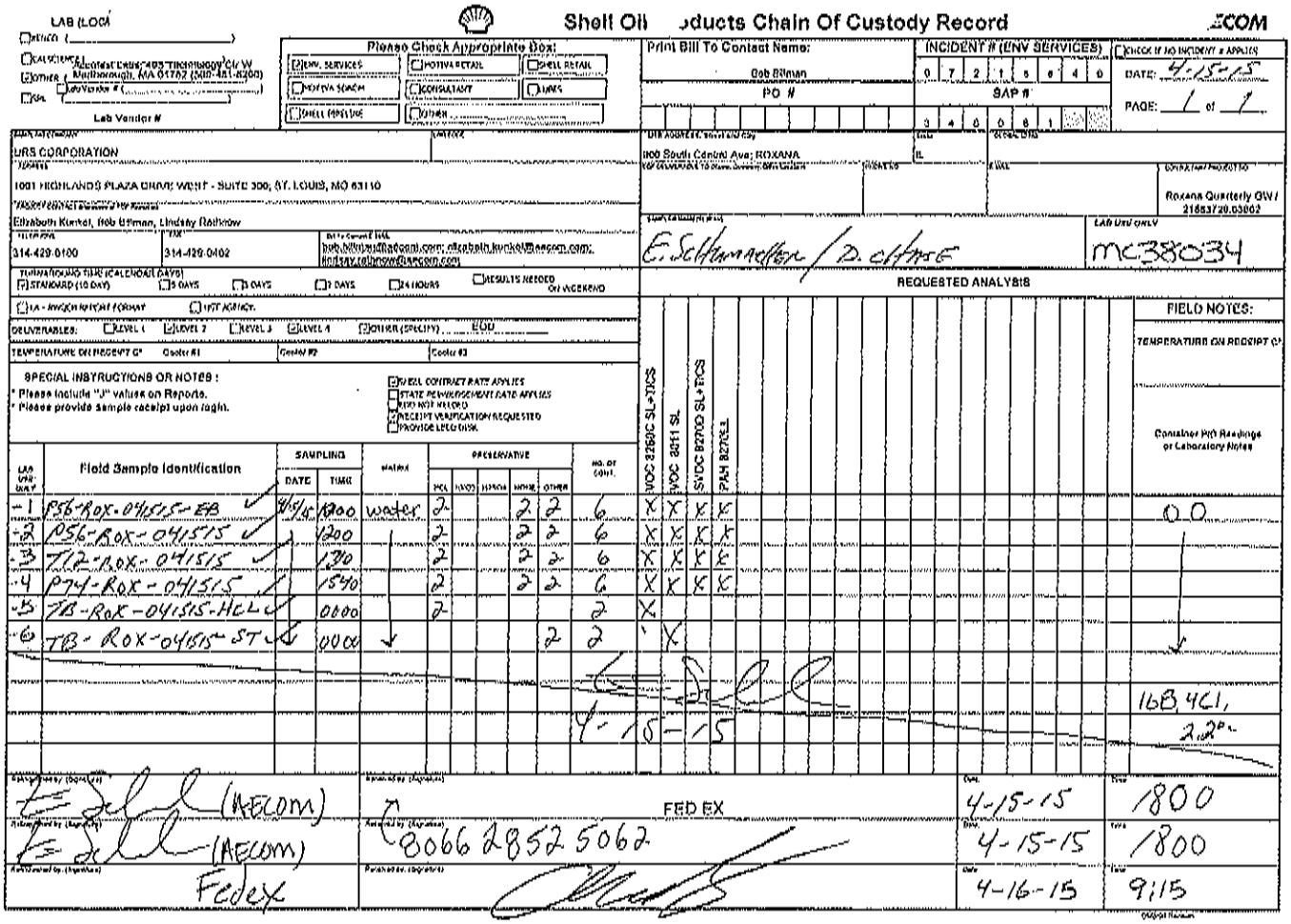
Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

LAB (LOC)

☐ PENCO ( )
☐ CALSCIENCE
☐ OTHER (Accutest Labs, 495 Tillmanbrook Cir W Marlborough, MA 01752 (508-481-6200)
☐ Lab Vendor # ( )
☐ SAL

Lab Vendor #



Shell Oil Products Chain Of Custody Record

AECOM

Please Check Appropriate Box:
☐ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SOACH ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name: Bob Bilman

PO #

INCIDENT # (ENV SERVICES): 0 7 2 1 5 6 4 0

SAP #: 3 4 0 0 6 1

☐ CHECK IF NO INCIDENT # APPLIES

DATE: 4-15-15

PAGE: 1 of 1

SAMPLING COMPANY	URS CORPORATION
ADDRESS	1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300, ST. LOUIS, MO 63110
PROJECT CONTACT (Reference # for Reports)	Elizabeth Kunkel, Bob Bilman, Lindsay Rathbow
TELEPHONE	314-429-0100
FAX	314-429-0402
BILL TO CONTACT EMAIL	bob.bilman@aecom.com; elizabeth.kunkel@aecom.com; lindsay.rathbow@aecom.com
DELIVERABLES	☐ LEVEL 1 ☐ LEVEL 2 ☐ LEVEL 3 ☐ LEVEL 4 ☐ OTHER (SPECIFY) EDD
TEMPERATURE ON RECEIPT C°	Cooler #1 Cooler #2 Cooler #3

TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY

SPECIAL INSTRUCTIONS OR NOTES:
* Please include "J" values on Reports.
* Please provide sample receipt upon login.

☑ SHELL CONTRACT RATE APPLIES
☐ STATE PERMISSIVE RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEED DISK

DIR ADDRESS, Street and City	900 South Central Ave; ROXANA
DIR ADDRESS	IL
CONTACT/PROJECT NO	Roxana Quarterly GW / 21583720.03002
SAMPLE COMPANY	E. Schumacher / D. Chase
LAB USE ONLY	MC38034

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260C SL+TICS	VOC 8011 SL	SVOC 8270D SL+TICS	PAH 8270E.L	FIELD NOTES: TEMPERATURE ON RECEIPT C° / Container PID Readings or Laboratory Notes
-1	P56-ROX-041515-EB	4/15/15	1200	water	2			2	2	6	X	X	X	X	0.0
-2	P56-ROX-041515		1200		2			2	2	6	X	X	X	X	
-3	T12-ROX-041515		1310		2			2	2	6	X	X	X	X	
-4	P74-ROX-041515		1540		2			2	2	6	X	X	X	X	
-5	TB-ROX-041515-HCL		0000		2					2	X				
-6	TB-ROX-041515-ST		0000						2	2		X			
															16B, 4C1, 2.2°C

4-15-15

Relinquished by (Signature)	Received by (Signature)	Date	Time
(AECOM)	FED EX	4-15-15	1800
(AECOM)	806628525062	4-15-15	1800
Fedex		4-16-15	9:15

5.1

MC38034: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC38034 Client: URS Project: 900 SOUTH CENTRAL AVE

Date / Time Received: 4/16/2015 9:15:00 AM Delivery Method: Airbill #'s:

Cooler Temps (Initial/Adjusted): #1: (2.2/2.2);

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	☑ ☐	3. COC Present:	☑ ☐
2. Custody Seals Intact:	☑ ☐	4. Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Thermometer ID:	G1;
3. Cooler media:	Ice (Bag)
4. No. Coolers:	1

Quality Control Preservation	Y or N	N/A
1. Trip Blank present / cooler:	☑ ☐	☐
2. Trip Blank listed on COC:	☑ ☐	☐
3. Samples preserved properly:	☑ ☐	
4. VOCs headspace free:	☑ ☐	☐

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	☑ ☐
2. Container labeling complete:	☑ ☐
3. Sample container label / COC agree:	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	☑ ☐
2. All containers accounted for:	☑ ☐
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear:	☑ ☐	
2. Bottles received for unspecified tests	☐ ☑	
3. Sufficient volume recvd for analysis:	☑ ☐	
4. Compositing instructions clear:	☐ ☐	☑
5. Filtering instructions clear:	☐ ☐	☑

Comments

Accutest Laboratories
V:(508) 481-6200

495 Technology Center West, Bldg One
F: (508) 481-7753

Marlborough, MA 01752
www.accutest.com

5.1

MC38034: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC38034

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC38034-1 Collected: 15-APR-15 10:00 By: ESDC Received: 16-APR-15 By: P56-ROX-041515-EB						
MC38034-1	SW846 8011	18-APR-15 11:22	NK	16-APR-15	AW	V8011SL
MC38034-1	SW846 8270D	23-APR-15 16:35	KD	19-APR-15	PA	AB8270SL+
MC38034-1	SW846 8270D BY SIM	24-APR-15 14:13	MR	19-APR-15	SC	B8270SIMSL
MC38034-1	SW846 8260C	28-APR-15 15:17	KD			V8260SL+
MC38034-2 Collected: 15-APR-15 12:00 By: ESDC Received: 16-APR-15 By: P56-ROX-041515						
MC38034-2	SW846 8011	18-APR-15 11:50	NK	16-APR-15	AW	V8011SL
MC38034-2	SW846 8270D	23-APR-15 17:00	KD	19-APR-15	PA	AB8270SL+
MC38034-2	SW846 8270D BY SIM	24-APR-15 14:37	MR	19-APR-15	SC	B8270SIMSL
MC38034-2	SW846 8260C	28-APR-15 21:58	KD			V8260SL+
MC38034-2	SW846 8260C	29-APR-15 16:42	JB			V8260SL+
MC38034-3 Collected: 15-APR-15 13:10 By: ESDC Received: 16-APR-15 By: T12-ROX-041515						
MC38034-3	SW846 8011	18-APR-15 12:19	NK	16-APR-15	AW	V8011SL
MC38034-3	SW846 8270D	23-APR-15 17:25	KD	19-APR-15	PA	AB8270SL+
MC38034-3	SW846 8270D BY SIM	24-APR-15 15:01	MR	19-APR-15	SC	B8270SIMSL
MC38034-3	SW846 8260C	28-APR-15 22:26	KD			V8260SL+
MC38034-3	SW846 8260C	29-APR-15 17:10	JB			V8260SL+
MC38034-4 Collected: 15-APR-15 15:40 By: ESDC Received: 16-APR-15 By: P74-ROX-041515						
MC38034-4	SW846 8011	18-APR-15 13:15	NK	16-APR-15	AW	V8011SL
MC38034-4	SW846 8270D	23-APR-15 17:50	KD	19-APR-15	PA	AB8270SL+
MC38034-4	SW846 8270D BY SIM	24-APR-15 15:24	MR	19-APR-15	SC	B8270SIMSL
MC38034-4	SW846 8260C	29-APR-15 15:47	JB			V8260SL+
MC38034-5 Collected: 15-APR-15 00:00 By: ESDC Received: 16-APR-15 By: TB-ROX-041515-HCL						
MC38034-5	SW846 8260C	28-APR-15 14:49	KD			V8260SL+

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC38034

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC38034-6 Collected: 15-APR-15 00:00 By: ESDC Received: 16-APR-15 By: TB-ROX-041515-ST						
MC38034-6	SW846 8011	18-APR-15 13:43	NK	16-APR-15	AW	V8011SL

Accutest Internal Chain of Custody

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Received: 04/16/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC38034-1.2	Walk In Ref #22	Michael DiBuono	04/19/15 13:29	Retrieve from Storage
MC38034-1.2	Michael DiBuono		05/05/15 10:33	Depleted
MC38034-1.3	VOC Ref #4	Krysten Dufort	04/28/15 12:59	Retrieve from Storage
MC38034-1.3	Krysten Dufort	GCMSV	04/28/15 12:59	Load on Instrument
MC38034-1.3	GCMSV	Krysten Dufort	04/29/15 12:13	Unload from Instrument
MC38034-1.3	Krysten Dufort	VOC Ref #4	04/29/15 12:13	Return to Storage
MC38034-1.6	VOC Ref #4	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC38034-1.6	Nicole Estey		04/16/15 23:05	Depleted
MC38034-2.1	Walk In Ref #22	Michael DiBuono	04/19/15 13:29	Retrieve from Storage
MC38034-2.1	Michael DiBuono		05/05/15 10:33	Depleted
MC38034-2.3	VOC Ref #4	Krysten Dufort	04/29/15 14:09	Retrieve from Storage
MC38034-2.3	Krysten Dufort	GCMSN	04/29/15 14:09	Load on Instrument
MC38034-2.3	GCMSN	Jaclyn Bergeron	04/29/15 14:25	Unload from Instrument
MC38034-2.3	Jaclyn Bergeron	VOC Ref #4	04/29/15 14:25	Return to Storage
MC38034-2.4	VOC Ref #4	Krysten Dufort	04/28/15 14:22	Retrieve from Storage
MC38034-2.4	Krysten Dufort	GCMSV	04/28/15 14:22	Load on Instrument
MC38034-2.4	GCMSV	Krysten Dufort	04/29/15 12:13	Unload from Instrument
MC38034-2.4	Krysten Dufort	VOC Ref #4	04/29/15 12:13	Return to Storage
MC38034-2.5	VOC Ref #4	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC38034-2.5	Nicole Estey		04/16/15 23:05	Depleted
MC38034-3.1	Walk In Ref #22	Michael DiBuono	04/19/15 13:29	Retrieve from Storage
MC38034-3.1	Michael DiBuono		05/05/15 10:33	Depleted
MC38034-3.3	VOC Ref #4	Krysten Dufort	04/28/15 14:22	Retrieve from Storage
MC38034-3.3	Krysten Dufort	GCMSV	04/28/15 14:22	Load on Instrument
MC38034-3.3	GCMSV	Krysten Dufort	04/29/15 12:13	Unload from Instrument
MC38034-3.3	Krysten Dufort	VOC Ref #4	04/29/15 12:13	Return to Storage
MC38034-3.4	VOC Ref #4	Krysten Dufort	04/29/15 14:09	Retrieve from Storage
MC38034-3.4	Krysten Dufort	GCMSN	04/29/15 14:09	Load on Instrument
MC38034-3.4	GCMSN	Jaclyn Bergeron	04/29/15 14:25	Unload from Instrument
MC38034-3.4	Jaclyn Bergeron	VOC Ref #4	04/29/15 14:25	Return to Storage
MC38034-3.6	VOC Ref #4	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC38034-3.6	Nicole Estey		04/16/15 23:05	Depleted
MC38034-4.1	Walk In Ref #22	Michael DiBuono	04/19/15 13:29	Retrieve from Storage

5.3

Accutest Internal Chain of Custody

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Received: 04/16/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC38034-4.1	Michael DiBuono		05/05/15 10:33	Depleted
MC38034-4.3	VOC Ref #4	Krysten Dufort	04/28/15 14:22	Retrieve from Storage
MC38034-4.3	Krysten Dufort	GCMSV	04/28/15 14:22	Load on Instrument
MC38034-4.3	GCMSV	Krysten Dufort	04/29/15 12:13	Unload from Instrument
MC38034-4.3	Krysten Dufort	VOC Ref #4	04/29/15 12:13	Return to Storage
MC38034-4.4	VOC Ref #4	Krysten Dufort	04/29/15 14:09	Retrieve from Storage
MC38034-4.4	Krysten Dufort	GCMSN	04/29/15 14:09	Load on Instrument
MC38034-4.4	GCMSN	Jaclyn Bergeron	04/29/15 14:25	Unload from Instrument
MC38034-4.4	Jaclyn Bergeron	VOC Ref #4	04/29/15 14:25	Return to Storage
MC38034-4.5	VOC Ref #4	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC38034-4.5	Nicole Estey		04/16/15 23:05	Depleted
MC38034-5.1	VOC Ref #4	Krysten Dufort	04/28/15 12:59	Retrieve from Storage
MC38034-5.1	Krysten Dufort	GCMSV	04/28/15 12:59	Load on Instrument
MC38034-5.1	GCMSV	Krysten Dufort	04/29/15 12:13	Unload from Instrument
MC38034-5.1	Krysten Dufort	VOC Ref #4	04/29/15 12:13	Return to Storage
MC38034-6.1	VOC Ref #4	Nicole Estey	04/16/15 17:03	Retrieve from Storage
MC38034-6.1	Nicole Estey		04/16/15 23:05	Depleted

5.3

New England ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1387-MB	V38489.D	1	04/28/15	KD	n/a	n/a	MSV1387

The QC reported here applies to the following samples: Method: SW846 8260C

MC38034-1, MC38034-2, MC38034-3, MC38034-5

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	

6.1.1

Method Blank Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1387-MB	V38489.D	1	04/28/15	KD	n/a	n/a	MSV1387

The QC reported here applies to the following samples: Method: SW846 8260C

MC38034-1, MC38034-2, MC38034-3, MC38034-5

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

6.1.1

Method Blank Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1387-MB	V38489.D	1	04/28/15	KD	n/a	n/a	MSV1387

The QC reported here applies to the following samples: Method: SW846 8260C

MC38034-1, MC38034-2, MC38034-3, MC38034-5

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	108%	72-133%
2037-26-5	Toluene-D8	101%	85-114%
460-00-4	4-Bromofluorobenzene	99%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

6.1.1

Method Blank Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3568-MB	N96915.D	1	04/29/15	JB	n/a	n/a	MSN3568

The QC reported here applies to the following samples: Method: SW846 8260C

MC38034-2, MC38034-3, MC38034-4

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	

6.1.2

Method Blank Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3568-MB	N96915.D	1	04/29/15	JB	n/a	n/a	MSN3568

The QC reported here applies to the following samples: Method: SW846 8260C

MC38034-2, MC38034-3, MC38034-4

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

6.1.2

Method Blank Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3568-MB	N96915.D	1	04/29/15	JB	n/a	n/a	MSN3568

The QC reported here applies to the following samples: Method: SW846 8260C

MC38034-2, MC38034-3, MC38034-4

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	99%	72-133%
2037-26-5	Toluene-D8	100%	85-114%
460-00-4	4-Bromofluorobenzene	96%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1387-BS	V38486.D	1	04/28/15	KD	n/a	n/a	MSV1387

The QC reported here applies to the following samples: Method: SW846 8260C

MC38034-1, MC38034-2, MC38034-3, MC38034-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	64.9	130	14-172
107-02-8	Acrolein	250	189	76	10-168
107-13-1	Acrylonitrile	50	46.7	93	41-158
71-43-2	Benzene	50	46.2	92	68-127
108-86-1	Bromobenzene	50	49.3	99	74-124
74-97-5	Bromochloromethane	50	45.6	91	68-135
75-27-4	Bromodichloromethane	50	52.8	106	72-144
75-25-2	Bromoform	50	43.0	86	59-147
74-83-9	Bromomethane	50	56.2	112	34-175
78-93-3	2-Butanone (MEK)	50	50.9	102	43-147
104-51-8	n-Butylbenzene	50	52.4	105	77-136
135-98-8	sec-Butylbenzene	50	52.4	105	75-134
98-06-6	tert-Butylbenzene	50	51.9	104	74-132
75-15-0	Carbon disulfide	50	46.6	93	34-171
56-23-5	Carbon tetrachloride	50	53.1	106	55-153
108-90-7	Chlorobenzene	50	49.1	98	71-123
75-00-3	Chloroethane	50	53.1	106	58-175
110-75-8	2-Chloroethyl vinyl ether	50	41.9	84	44-169
67-66-3	Chloroform	50	49.9	100	67-136
74-87-3	Chloromethane	50	53.0	106	25-182
95-49-8	o-Chlorotoluene	50	51.2	102	72-130
106-43-4	p-Chlorotoluene	50	51.4	103	73-127
124-48-1	Dibromochloromethane	50	45.4	91	73-139
95-50-1	1,2-Dichlorobenzene	50	47.3	95	77-125
541-73-1	1,3-Dichlorobenzene	50	49.0	98	77-124
106-46-7	1,4-Dichlorobenzene	50	47.5	95	73-128
75-71-8	Dichlorodifluoromethane	50	60.1	120	23-157
75-34-3	1,1-Dichloroethane	50	49.5	99	63-145
107-06-2	1,2-Dichloroethane	50	50.7	101	58-145
75-35-4	1,1-Dichloroethene	50	48.4	97	56-158
156-59-2	cis-1,2-Dichloroethene	50	46.6	93	67-133
156-60-5	trans-1,2-Dichloroethene	50	47.3	95	66-136
78-87-5	1,2-Dichloropropane	50	51.2	102	75-133
142-28-9	1,3-Dichloropropane	50	47.0	94	70-127
594-20-7	2,2-Dichloropropane	50	51.1	102	52-163
563-58-6	1,1-Dichloropropene	50	50.2	100	77-140

* = Outside of Control Limits.

6.2.1

Blank Spike Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1387-BS	V38486.D	1	04/28/15	KD	n/a	n/a	MSV1387

The QC reported here applies to the following samples: Method: SW846 8260C

MC38034-1, MC38034-2, MC38034-3, MC38034-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-01-5	cis-1,3-Dichloropropene	50	46.9	94	74-141
10061-02-6	trans-1,3-Dichloropropene	50	48.1	96	77-143
123-91-1	1,4-Dioxane	250	219	88	30-182
97-63-2	Ethyl methacrylate	50	46.4	93	64-131
100-41-4	Ethylbenzene	50	51.4	103	71-129
87-68-3	Hexachlorobutadiene	50	46.5	93	64-146
591-78-6	2-Hexanone	50	49.5	99	22-163
98-82-8	Isopropylbenzene	50	53.0	106	72-133
99-87-6	p-Isopropyltoluene	50	52.0	104	77-134
1634-04-4	Methyl Tert Butyl Ether	50	50.9	102	46-151
108-10-1	4-Methyl-2-pentanone (MIBK)	50	45.7	91	47-145
74-95-3	Methylene bromide	50	49.5	99	70-132
75-09-2	Methylene chloride	50	45.7	91	55-146
91-20-3	Naphthalene	50	36.5	73	39-176
103-65-1	n-Propylbenzene	50	54.9	110	74-134
100-42-5	Styrene	50	50.0	100	71-134
630-20-6	1,1,1,2-Tetrachloroethane	50	45.7	91	70-137
79-34-5	1,1,2,2-Tetrachloroethane	50	48.3	97	58-145
127-18-4	Tetrachloroethene	50	49.9	100	63-137
108-88-3	Toluene	50	49.5	99	75-126
87-61-6	1,2,3-Trichlorobenzene	50	40.1	80	27-181
120-82-1	1,2,4-Trichlorobenzene	50	42.7	85	40-176
71-55-6	1,1,1-Trichloroethane	50	49.0	98	68-144
79-00-5	1,1,2-Trichloroethane	50	50.9	102	72-133
79-01-6	Trichloroethene	50	48.9	98	73-126
75-69-4	Trichlorofluoromethane	50	63.4	127	43-152
96-18-4	1,2,3-Trichloropropane	50	43.6	87	58-141
95-63-6	1,2,4-Trimethylbenzene	50	52.6	105	76-129
108-67-8	1,3,5-Trimethylbenzene	50	52.4	105	71-127
108-05-4	Vinyl Acetate	50	49.5	99	10-170
75-01-4	Vinyl chloride	50	51.3	103	36-167
	m,p-Xylene	100	101	101	68-130
95-47-6	o-Xylene	50	50.1	100	69-126
1330-20-7	Xylene (total)	150	151	101	67-129

* = Outside of Control Limits.

6.2.1

Blank Spike Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1387-BS	V38486.D	1	04/28/15	KD	n/a	n/a	MSV1387

The QC reported here applies to the following samples: Method: SW846 8260C

MC38034-1, MC38034-2, MC38034-3, MC38034-5

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	104%	72-133%
2037-26-5	Toluene-D8	103%	85-114%
460-00-4	4-Bromofluorobenzene	104%	70-134%

6.2.1

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3568-BS	N96913.D	1	04/29/15	JB	n/a	n/a	MSN3568

6.2.2

The QC reported here applies to the following samples: Method: SW846 8260C

MC38034-2, MC38034-3, MC38034-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	57.6	115	14-172
107-02-8	Acrolein	250	238	95	10-168
107-13-1	Acrylonitrile	50	48.1	96	41-158
71-43-2	Benzene	50	51.6	103	68-127
108-86-1	Bromobenzene	50	46.2	92	74-124
74-97-5	Bromochloromethane	50	52.6	105	68-135
75-27-4	Bromodichloromethane	50	46.8	94	72-144
75-25-2	Bromoform	50	46.4	93	59-147
74-83-9	Bromomethane	50	34.2	68	34-175
78-93-3	2-Butanone (MEK)	50	54.3	109	43-147
104-51-8	n-Butylbenzene	50	51.8	104	77-136
135-98-8	sec-Butylbenzene	50	44.7	89	75-134
98-06-6	tert-Butylbenzene	50	43.5	87	74-132
75-15-0	Carbon disulfide	50	64.7	129	34-171
56-23-5	Carbon tetrachloride	50	51.1	102	55-153
108-90-7	Chlorobenzene	50	45.9	92	71-123
75-00-3	Chloroethane	50	48.6	97	58-175
110-75-8	2-Chloroethyl vinyl ether	50	49.6	99	44-169
67-66-3	Chloroform	50	45.6	91	67-136
74-87-3	Chloromethane	50	53.8	108	25-182
95-49-8	o-Chlorotoluene	50	43.4	87	72-130
106-43-4	p-Chlorotoluene	50	44.7	89	73-127
124-48-1	Dibromochloromethane	50	49.7	99	73-139
95-50-1	1,2-Dichlorobenzene	50	47.3	95	77-125
541-73-1	1,3-Dichlorobenzene	50	45.7	91	77-124
106-46-7	1,4-Dichlorobenzene	50	46.0	92	73-128
75-71-8	Dichlorodifluoromethane	50	44.2	88	23-157
75-34-3	1,1-Dichloroethane	50	49.5	99	63-145
107-06-2	1,2-Dichloroethane	50	47.1	94	58-145
75-35-4	1,1-Dichloroethene	50	59.7	119	56-158
156-59-2	cis-1,2-Dichloroethene	50	52.0	104	67-133
156-60-5	trans-1,2-Dichloroethene	50	56.4	113	66-136
78-87-5	1,2-Dichloropropane	50	49.6	99	75-133
142-28-9	1,3-Dichloropropane	50	50.7	101	70-127
594-20-7	2,2-Dichloropropane	50	54.8	110	52-163
563-58-6	1,1-Dichloropropene	50	49.9	100	77-140

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL.

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3568-BS	N96913.D	1	04/29/15	JB	n/a	n/a	MSN3568

The QC reported here applies to the following samples: Method: SW846 8260C

MC38034-2, MC38034-3, MC38034-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-01-5	cis-1,3-Dichloropropene	50	55.5	111	74-141
10061-02-6	trans-1,3-Dichloropropene	50	52.2	104	77-143
123-91-1	1,4-Dioxane	250	310	124	30-182
97-63-2	Ethyl methacrylate	50	50.5	101	64-131
100-41-4	Ethylbenzene	50	48.8	98	71-129
87-68-3	Hexachlorobutadiene	50	52.6	105	64-146
591-78-6	2-Hexanone	50	58.1	116	22-163
98-82-8	Isopropylbenzene	50	42.9	86	72-133
99-87-6	p-Isopropyltoluene	50	47.2	94	77-134
1634-04-4	Methyl Tert Butyl Ether	50	51.8	104	46-151
108-10-1	4-Methyl-2-pentanone (MIBK)	50	44.8	90	47-145
74-95-3	Methylene bromide	50	48.4	97	70-132
75-09-2	Methylene chloride	50	55.3	111	55-146
91-20-3	Naphthalene	50	62.1	124	39-176
103-65-1	n-Propylbenzene	50	43.4	87	74-134
100-42-5	Styrene	50	52.8	106	71-134
630-20-6	1,1,1,2-Tetrachloroethane	50	49.4	99	70-137
79-34-5	1,1,2,2-Tetrachloroethane	50	44.6	89	58-145
127-18-4	Tetrachloroethene	50	50.0	100	63-137
108-88-3	Toluene	50	46.9	94	75-126
87-61-6	1,2,3-Trichlorobenzene	50	59.6	119	27-181
120-82-1	1,2,4-Trichlorobenzene	50	54.2	108	40-176
71-55-6	1,1,1-Trichloroethane	50	47.7	95	68-144
79-00-5	1,1,2-Trichloroethane	50	45.5	91	72-133
79-01-6	Trichloroethene	50	48.7	97	73-126
75-69-4	Trichlorofluoromethane	50	44.9	90	43-152
96-18-4	1,2,3-Trichloropropane	50	48.8	98	58-141
95-63-6	1,2,4-Trimethylbenzene	50	45.3	91	76-129
108-67-8	1,3,5-Trimethylbenzene	50	47.2	94	71-127
108-05-4	Vinyl Acetate	50	115	230* a	10-170
75-01-4	Vinyl chloride	50	44.1	88	36-167
	m,p-Xylene	100	96.4	96	68-130
95-47-6	o-Xylene	50	46.7	93	69-126
1330-20-7	Xylene (total)	150	143	95	67-129

* = Outside of Control Limits.

6.2.2

Blank Spike Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3568-BS	N96913.D	1	04/29/15	JB	n/a	n/a	MSN3568

The QC reported here applies to the following samples: Method: SW846 8260C

MC38034-2, MC38034-3, MC38034-4

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	92%	72-133%
2037-26-5	Toluene-D8	99%	85-114%
460-00-4	4-Bromofluorobenzene	93%	70-134%

(a) Outside control limits. Associated samples are non-detect for this compound.

6.2.2

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC38001-3MS	V38509.D	5	04/28/15	KD	n/a	n/a	MSV1387
MC38001-3MSD	V38510.D	5	04/28/15	KD	n/a	n/a	MSV1387
MC38001-3	V38493.D	1	04/28/15	KD	n/a	n/a	MSV1387

The QC reported here applies to the following samples: Method: SW846 8260C

MC38034-1, MC38034-2, MC38034-3, MC38034-5

CAS No.	Compound	MC38001-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250	156	62	250	173	69	10	10-135/30
107-02-8	Acrolein	ND		1250	1070	86	1250	1080	86	1	10-175/30
107-13-1	Acrylonitrile	ND		250	245	98	250	254	102	4	37-163/30
71-43-2	Benzene	ND		250	235	94	250	238	95	1	61-138/30
108-86-1	Bromobenzene	ND		250	255	102	250	261	104	2	71-126/30
74-97-5	Bromochloromethane	ND		250	230	92	250	240	96	4	70-136/30
75-27-4	Bromodichloromethane	ND		250	260	104	250	269	108	3	73-146/30
75-25-2	Bromoform	ND		250	215	86	250	224	90	4	54-147/30
74-83-9	Bromomethane	ND		250	268	107	250	269	108	0	20-171/30
78-93-3	2-Butanone (MEK)	ND		250	191	76	250	193	77	1	33-127/30
104-51-8	n-Butylbenzene	ND		250	252	101	250	260	104	3	69-138/30
135-98-8	sec-Butylbenzene	ND		250	260	104	250	266	106	2	71-137/30
98-06-6	tert-Butylbenzene	ND		250	254	102	250	264	106	4	68-137/30
75-15-0	Carbon disulfide	ND		250	230	92	250	234	94	2	29-178/30
56-23-5	Carbon tetrachloride	ND		250	250	100	250	255	102	2	57-155/30
108-90-7	Chlorobenzene	ND		250	250	100	250	255	102	2	69-126/30
75-00-3	Chloroethane	ND		250	253	101	250	259	104	2	57-182/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	ND	0* [a]	250	ND	0* [a]	nc	10-200/30
67-66-3	Chloroform	ND		250	253	101	250	257	103	2	66-142/30
74-87-3	Chloromethane	ND		250	255	102	250	257	103	1	18-182/30
95-49-8	o-Chlorotoluene	ND		250	257	103	250	261	104	2	60-145/30
106-43-4	p-Chlorotoluene	ND		250	260	104	250	264	106	2	64-138/30
124-48-1	Dibromochloromethane	ND		250	228	91	250	238	95	4	71-138/30
95-50-1	1,2-Dichlorobenzene	ND		250	237	95	250	245	98	3	75-125/30
541-73-1	1,3-Dichlorobenzene	ND		250	245	98	250	252	101	3	74-125/30
106-46-7	1,4-Dichlorobenzene	ND		250	238	95	250	246	98	3	72-128/30
75-71-8	Dichlorodifluoromethane	ND		250	278	111	250	275	110	1	23-159/30
75-34-3	1,1-Dichloroethane	ND		250	252	101	250	257	103	2	63-150/30
107-06-2	1,2-Dichloroethane	ND		250	253	101	250	259	104	2	57-150/30
75-35-4	1,1-Dichloroethene	ND		250	241	96	250	244	98	1	53-165/30
156-59-2	cis-1,2-Dichloroethene	ND		250	238	95	250	241	96	1	66-138/30
156-60-5	trans-1,2-Dichloroethene	ND		250	238	95	250	241	96	1	65-141/30
78-87-5	1,2-Dichloropropane	ND		250	259	104	250	264	106	2	76-136/30
142-28-9	1,3-Dichloropropane	ND		250	243	97	250	252	101	4	71-127/30
594-20-7	2,2-Dichloropropane	ND		250	206	82	250	204	82	1	33-175/30
563-58-6	1,1-Dichloropropene	ND		250	247	99	250	251	100	2	76-145/30

* = Outside of Control Limits.

6.3.1

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC38001-3MS	V38509.D	5	04/28/15	KD	n/a	n/a	MSV1387
MC38001-3MSD	V38510.D	5	04/28/15	KD	n/a	n/a	MSV1387
MC38001-3	V38493.D	1	04/28/15	KD	n/a	n/a	MSV1387

The QC reported here applies to the following samples: Method: SW846 8260C

MC38034-1, MC38034-2, MC38034-3, MC38034-5

CAS No.	Compound	MC38001-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		250	222	89	250	232	93	4	75-137/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	233	93	250	242	97	4	77-139/30
123-91-1	1,4-Dioxane	ND		1250	901	72	1250	1060	85	16	29-167/30
97-63-2	Ethyl methacrylate	ND		250	241	96	250	253	101	5	60-135/30
100-41-4	Ethylbenzene	0.33	J	250	267	107	250	269	107	1	61-137/30
87-68-3	Hexachlorobutadiene	ND		250	215	86	250	229	92	6	59-141/30
591-78-6	2-Hexanone	ND		250	182	73	250	190	76	4	12-141/30
98-82-8	Isopropylbenzene	ND		250	267	107	250	273	109	2	64-141/30
99-87-6	p-Isopropyltoluene	ND		250	256	102	250	261	104	2	73-135/30
1634-04-4	Methyl Tert Butyl Ether	7.5		250	272	106	250	279	109	3	34-160/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	232	93	250	244	98	5	47-143/30
74-95-3	Methylene bromide	ND		250	249	100	250	259	104	4	73-132/30
75-09-2	Methylene chloride	ND		250	229	92	250	231	92	1	52-154/30
91-20-3	Naphthalene	ND		250	190	76	250	199	80	5	21-185/30
103-65-1	n-Propylbenzene	ND		250	273	109	250	279	112	2	66-141/30
100-42-5	Styrene	ND		250	254	102	250	259	104	2	60-142/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	231	92	250	239	96	3	69-138/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	251	100	250	261	104	4	58-147/30
127-18-4	Tetrachloroethene	ND		250	251	100	250	254	102	1	60-140/30
108-88-3	Toluene	0.35	J	250	251	100	250	253	101	1	74-131/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	198	79	250	214	86	8	12-184/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	210	84	250	220	88	5	30-175/30
71-55-6	1,1,1-Trichloroethane	ND		250	243	97	250	243	97	0	67-151/30
79-00-5	1,1,2-Trichloroethane	ND		250	256	102	250	262	105	2	73-134/30
79-01-6	Trichloroethene	ND		250	243	97	250	248	99	2	68-133/30
75-69-4	Trichlorofluoromethane	ND		250	289	116	250	292	117	1	40-159/30
96-18-4	1,2,3-Trichloropropane	ND		250	216	86	250	229	92	6	54-141/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	263	105	250	267	107	2	62-142/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	264	106	250	269	108	2	62-133/30
108-05-4	Vinyl Acetate	ND		250	253	101	250	255	102	1	10-169/30
75-01-4	Vinyl chloride	ND		250	243	97	250	246	98	1	29-176/30
	m,p-Xylene	0.57	J	500	518	103	500	525	105	1	58-139/30
95-47-6	o-Xylene	0.24	J	250	255	102	250	259	104	2	61-135/30
1330-20-7	Xylene (total)	0.82	J	750	773	103	750	784	104	1	60-136/30

* = Outside of Control Limits.

6.3.1

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC38001-3MS	V38509.D	5	04/28/15	KD	n/a	n/a	MSV1387
MC38001-3MSD	V38510.D	5	04/28/15	KD	n/a	n/a	MSV1387
MC38001-3	V38493.D	1	04/28/15	KD	n/a	n/a	MSV1387

The QC reported here applies to the following samples: Method: SW846 8260C

MC38034-1, MC38034-2, MC38034-3, MC38034-5

CAS No.	Surrogate Recoveries	MS	MSD	MC38001-3	Limits
1868-53-7	Dibromofluoromethane	103%	102%	116%	72-133%
2037-26-5	Toluene-D8	102%	101%	102%	85-114%
460-00-4	4-Bromofluorobenzene	104%	104%	107%	70-134%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

6.3.1

6

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC38034-4MS	N96935.D	5	04/30/15	JB	n/a	n/a	MSN3568
MC38034-4MSD	N96936.D	5	04/30/15	JB	n/a	n/a	MSN3568
MC38034-4	N96917.D	1	04/29/15	JB	n/a	n/a	MSN3568

The QC reported here applies to the following samples: Method: SW846 8260C

MC38034-2, MC38034-3, MC38034-4

CAS No.	Compound	MC38034-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250	125	50	250	148	59	17	10-135/30
107-02-8	Acrolein	ND		1250	1290	103	1250	1350	108	5	10-175/30
107-13-1	Acrylonitrile	ND		250	274	110	250	290	116	6	37-163/30
71-43-2	Benzene	32.0		250	291	104	250	288	102	1	61-138/30
108-86-1	Bromobenzene	ND		250	211	84	250	213	85	1	71-126/30
74-97-5	Bromochloromethane	ND		250	273	109	250	271	108	1	70-136/30
75-27-4	Bromodichloromethane	ND		250	241	96	250	239	96	1	73-146/30
75-25-2	Bromoform	ND		250	232	93	250	240	96	3	54-147/30
74-83-9	Bromomethane	ND		250	170	68	250	194	78	13	20-171/30
78-93-3	2-Butanone (MEK)	ND		250	199	80	250	208	83	4	33-127/30
104-51-8	n-Butylbenzene	ND		250	235	94	250	234	94	0	69-138/30
135-98-8	sec-Butylbenzene	ND		250	211	84	250	206	82	2	71-137/30
98-06-6	tert-Butylbenzene	ND		250	204	82	250	200	80	2	68-137/30
75-15-0	Carbon disulfide	ND		250	367	147	250	362	145	1	29-178/30
56-23-5	Carbon tetrachloride	ND		250	275	110	250	276	110	0	57-155/30
108-90-7	Chlorobenzene	ND		250	220	88	250	222	89	1	69-126/30
75-00-3	Chloroethane	ND		250	278	111	250	269	108	3	57-182/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	258	103	250	256	102	1	10-200/30
67-66-3	Chloroform	ND		250	256	102	250	250	100	2	66-142/30
74-87-3	Chloromethane	ND		250	278	111	250	288	115	4	18-182/30
95-49-8	o-Chlorotoluene	ND		250	201	80	250	198	79	2	60-145/30
106-43-4	p-Chlorotoluene	ND		250	205	82	250	204	82	0	64-138/30
124-48-1	Dibromochloromethane	ND		250	237	95	250	240	96	1	71-138/30
95-50-1	1,2-Dichlorobenzene	ND		250	219	88	250	218	87	0	75-125/30
541-73-1	1,3-Dichlorobenzene	ND		250	213	85	250	211	84	1	74-125/30
106-46-7	1,4-Dichlorobenzene	ND		250	211	84	250	212	85	0	72-128/30
75-71-8	Dichlorodifluoromethane	ND		250	225	90	250	229	92	2	23-159/30
75-34-3	1,1-Dichloroethane	ND		250	279	112	250	275	110	1	63-150/30
107-06-2	1,2-Dichloroethane	ND		250	249	100	250	248	99	0	57-150/30
75-35-4	1,1-Dichloroethene	ND		250	348	139	250	338	135	3	53-165/30
156-59-2	cis-1,2-Dichloroethene	ND		250	301	120	250	291	116	3	66-138/30
156-60-5	trans-1,2-Dichloroethene	ND		250	310	124	250	308	123	1	65-141/30
78-87-5	1,2-Dichloropropane	ND		250	258	103	250	256	102	1	76-136/30
142-28-9	1,3-Dichloropropane	ND		250	238	95	250	245	98	3	71-127/30
594-20-7	2,2-Dichloropropane	ND		250	267	107	250	259	104	3	33-175/30
563-58-6	1,1-Dichloropropene	ND		250	261	104	250	262	105	0	76-145/30

* = Outside of Control Limits.

6.3.2

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC38034-4MS	N96935.D	5	04/30/15	JB	n/a	n/a	MSN3568
MC38034-4MSD	N96936.D	5	04/30/15	JB	n/a	n/a	MSN3568
MC38034-4	N96917.D	1	04/29/15	JB	n/a	n/a	MSN3568

The QC reported here applies to the following samples: Method: SW846 8260C

MC38034-2, MC38034-3, MC38034-4

6.3.2

CAS No.	Compound	MC38034-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		250	288	115	250	288	115	0	75-137/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	277	111	250	277	111	0	77-139/30
123-91-1	1,4-Dioxane	ND		1250	1190	95	1250	1440	115	19	29-167/30
97-63-2	Ethyl methacrylate	ND		250	261	104	250	269	108	3	60-135/30
100-41-4	Ethylbenzene	5.8		250	238	93	250	237	92	0	61-137/30
87-68-3	Hexachlorobutadiene	ND		250	235	94	250	238	95	1	59-141/30
591-78-6	2-Hexanone	ND		250	179	72	250	188	75	5	12-141/30
98-82-8	Isopropylbenzene	ND		250	203	81	250	202	81	0	64-141/30
99-87-6	p-Isopropyltoluene	0.33	J	250	217	87	250	217	87	0	73-135/30
1634-04-4	Methyl Tert Butyl Ether	ND		250	291	116	250	298	119	2	34-160/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	232	93	250	242	97	4	47-143/30
74-95-3	Methylene bromide	ND		250	255	102	250	255	102	0	73-132/30
75-09-2	Methylene chloride	ND		250	312	125	250	314	126	1	52-154/30
91-20-3	Naphthalene	ND		250	287	115	250	240	96	18	21-185/30
103-65-1	n-Propylbenzene	0.42	J	250	201	80	250	198	79	2	66-141/30
100-42-5	Styrene	ND		250	245	98	250	250	100	2	60-142/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	236	94	250	236	94	0	69-138/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	217	87	250	221	88	2	58-147/30
127-18-4	Tetrachloroethene	ND		250	238	95	250	241	96	1	60-140/30
108-88-3	Toluene	1.3		250	259	103	250	252	100	3	74-131/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	254	102	250	239	96	6	12-184/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	241	96	250	235	94	3	30-175/30
71-55-6	1,1,1-Trichloroethane	ND		250	271	108	250	269	108	1	67-151/30
79-00-5	1,1,2-Trichloroethane	ND		250	239	96	250	243	97	2	73-134/30
79-01-6	Trichloroethene	ND		250	263	105	250	260	104	1	68-133/30
75-69-4	Trichlorofluoromethane	ND		250	245	98	250	244	98	0	40-159/30
96-18-4	1,2,3-Trichloropropane	ND		250	222	89	250	225	90	1	54-141/30
95-63-6	1,2,4-Trimethylbenzene	8.6		250	226	87	250	221	85	2	62-142/30
108-67-8	1,3,5-Trimethylbenzene	4.4	J	250	225	88	250	220	86	2	62-133/30
108-05-4	Vinyl Acetate	ND		250	636	254* a	250	563	225* a	12	10-169/30
75-01-4	Vinyl chloride	ND		250	256	102	250	255	102	0	29-176/30
	m,p-Xylene	20.2		500	475	91	500	472	90	1	58-139/30
95-47-6	o-Xylene	1.2		250	231	92	250	229	91	1	61-135/30
1330-20-7	Xylene (total)	21.4		750	706	91	750	701	91	1	60-136/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC38034-4MS	N96935.D	5	04/30/15	JB	n/a	n/a	MSN3568
MC38034-4MSD	N96936.D	5	04/30/15	JB	n/a	n/a	MSN3568
MC38034-4	N96917.D	1	04/29/15	JB	n/a	n/a	MSN3568

The QC reported here applies to the following samples: Method: SW846 8260C

MC38034-2, MC38034-3, MC38034-4

CAS No.	Surrogate Recoveries	MS	MSD	MC38034-4	Limits
1868-53-7	Dibromofluoromethane	101%	99%	100%	72-133%
2037-26-5	Toluene-D8	100%	100%	99%	85-114%
460-00-4	4-Bromofluorobenzene	92%	92%	95%	70-134%

(a) Outside control limits. Associated samples are non-detect for this compound.

* = Outside of Control Limits.

6.3.2

Volatile Internal Standard Area Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSN3568-CC3567	Injection Date:	04/29/15
Lab File ID:	N96913.D	Injection Time:	13:43
Instrument ID:	GCMSN	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	820473	9.10	1358871	9.97	764772	13.23	538126	15.78	370210	6.69
Upper Limit [a]	1640946	9.60	2717742	10.47	1529544	13.73	1076252	16.28	740420	7.19
Lower Limit [b]	410237	8.60	679436	9.47	382386	12.73	269063	15.28	185105	6.19

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSN3568-BS	820473	9.10	1358871	9.97	764772	13.23	538126	15.78	370210	6.69
MSN3568-MB	709322	9.10	1272507	9.97	756427	13.23	527424	15.79	334758	6.70
ZZZZZZ	648427	9.10	1140383	9.97	700025	13.23	494094	15.78	316640	6.73
MC38034-4	651844	9.10	1165205	9.97	717168	13.23	506999	15.78	326701	6.70
ZZZZZZ	662007	9.10	1185730	9.98	719289	13.23	504121	15.78	361543	6.71
MC38034-2	663814	9.10	1164275	9.97	716308	13.23	511926	15.78	329078	6.73
MC38034-3	650664	9.10	1153971	9.97	716830	13.23	508678	15.78	356550	6.73
ZZZZZZ	642749	9.10	1123558	9.98	691211	13.23	488734	15.79	360036	6.73
ZZZZZZ	617890	9.10	1097706	9.98	685243	13.23	465122	15.78	357577	6.72
ZZZZZZ	619408	9.11	1097894	9.98	682038	13.23	481361	15.79	358581	6.71
ZZZZZZ	613854	9.11	1094373	9.98	674018	13.23	469516	15.78	378641	6.72
ZZZZZZ	601534	9.11	1053750	9.98	651985	13.23	462037	15.78	382204	6.70
ZZZZZZ	630013	9.11	1104117	9.98	692932	13.23	512477	15.78	370542	6.72
ZZZZZZ	659002	9.10	1159243	9.98	708682	13.23	526261	15.79	421469	6.71
ZZZZZZ	673926	9.11	1196675	9.98	727911	13.23	520995	15.78	455334	6.71
ZZZZZZ	676663	9.11	1223228	9.98	760610	13.23	587049	15.78	409193	6.71
ZZZZZZ	701992	9.11	1244997	9.98	783829	13.23	623855	15.78	462798	6.70
ZZZZZZ	731683	9.11	1284903	9.98	808857	13.23	614082	15.78	438533	6.70
ZZZZZZ	751525	9.11	1362750	9.98	822240	13.23	634710	15.78	470481	6.71
ZZZZZZ	761484	9.11	1359644	9.98	819680	13.23	618020	15.78	412577	6.71
ZZZZZZ	738952	9.11	1299680	9.98	818344	13.23	624040	15.78	479916	6.70
MC38034-4MS	745124	9.11	1322433	9.98	826627	13.23	600886	15.78	443544	6.70
MC38034-4MSD	737939	9.11	1305619	9.98	806426	13.23	601138	15.78	479625	6.70
MSN3568-ECC3567	703953	9.11	1233730	9.98	785264	13.23	597892	15.78	482980	6.71

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

6.4.1

Volatile Internal Standard Area Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSV1387-CC1332	Injection Date:	04/28/15
Lab File ID:	V38486.D	Injection Time:	12:26
Instrument ID:	GCMSV	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	478562	6.56	749873	7.74	376770	11.09	402608	13.30	80303	3.52
Upper Limit [a]	957124	7.06	1499746	8.24	753540	11.59	805216	13.80	160606	4.02
Lower Limit [b]	239281	6.06	374937	7.24	188385	10.59	201304	12.80	40152	3.02
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV1387-BS	478562	6.56	749873	7.74	376770	11.09	402608	13.30	80303	3.52
MSV1387-MB	385214	6.57	624004	7.75	317691	11.09	341946	13.30	67255	3.53
ZZZZZZ	381718	6.57	628903	7.75	317816	11.09	339190	13.30	66779	3.53
MC38034-5	356401	6.56	600950	7.75	307314	11.09	320056	13.30	64189	3.52
MC38034-1	348975	6.57	587797	7.75	302596	11.09	315694	13.30	60566	3.52
MC38001-3	349793	6.56	592304	7.75	312902	11.09	330926	13.30	67410	3.52
ZZZZZZ	365582	6.57	591086	7.75	310567	11.09	319191	13.30	66796	3.52
ZZZZZZ	364161	6.57	597224	7.75	306880	11.09	345942	13.30	69246	3.53
ZZZZZZ	383541	6.57	618016	7.75	316356	11.09	346058	13.30	73852	3.53
ZZZZZZ	401365	6.57	649791	7.75	329719	11.09	361443	13.30	78219	3.53
ZZZZZZ	425504	6.56	680366	7.75	339690	11.09	361107	13.30	67671	3.52
ZZZZZZ	405526	6.57	676939	7.75	340134	11.09	365465	13.30	59701	3.53
ZZZZZZ	421008	6.57	701370	7.75	359220	11.09	371741	13.30	66832	3.53
ZZZZZZ	364293	6.56	624686	7.75	313656	11.09	325168	13.30	58106	3.52
ZZZZZZ	355386	6.57	577445	7.75	296739	11.09	309275	13.30	58512	3.52
ZZZZZZ	343707	6.57	563562	7.75	291556	11.09	304961	13.30	57947	3.53
ZZZZZZ	338372	6.56	562035	7.75	292707	11.09	303461	13.30	55423	3.52
MC38034-2	415288	6.56	652779	7.75	346567	11.09	353311	13.30	202780[c]	3.53
MC38034-3	482818	6.57	769787	7.75	390612	11.09	398274	13.30	296766[c]	3.54
MC38001-3MS	478050	6.56	761971	7.75	376770	11.09	402392	13.30	80471	3.52
MC38001-3MSD	490987	6.56	776425	7.75	382735	11.09	405455	13.30	88164	3.52

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

6.4.2

Volatile Surrogate Recovery Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8260C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC38034-1	V38492.D	117	102	101
MC38034-2	N96919.D	99	100	94
MC38034-2	V38506.D	100	107	105
MC38034-3	N96920.D	102	100	93
MC38034-3	V38507.D	98	103	105
MC38034-4	N96917.D	100	99	95
MC38034-5	V38491.D	115	100	101
MC38001-3MS	V38509.D	103	102	104
MC38001-3MSD	V38510.D	102	101	104
MC38034-4MS	N96935.D	101	100	92
MC38034-4MSD	N96936.D	99	100	92
MSN3568-BS	N96913.D	92	99	93
MSN3568-MB	N96915.D	99	100	96
MSV1387-BS	V38486.D	104	103	104
MSV1387-MB	V38489.D	108	101	99

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	72-133%
S2 = Toluene-D8	85-114%
S3 = 4-Bromofluorobenzene	70-134%

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42730-MB	W21610.D	1	04/23/15	KD	04/19/15	OP42730	MSW924

The QC reported here applies to the following samples: Method: SW846 8270D

MC38034-1, MC38034-2, MC38034-3, MC38034-4

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.5	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.29	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.51	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.47	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.34	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.59	ug/l	
95-48-7	2-Methylphenol	ND	10	0.30	ug/l	
	3&4-Methylphenol	ND	10	0.44	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.47	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.35	ug/l	
108-95-2	Phenol	ND	5.0	0.32	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.45	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.45	ug/l	
62-53-3	Aniline	ND	10	0.46	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.25	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.24	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.32	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.34	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.49	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.42	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.42	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.26	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.37	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.38	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.53	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.27	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	0.29	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.27	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.24	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.32	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.24	ug/l	

Method Blank Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42730-MB	W21610.D	1	04/23/15	KD	04/19/15	OP42730	MSW924

The QC reported here applies to the following samples: Method: SW846 8270D

MC38034-1, MC38034-2, MC38034-3, MC38034-4

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.28	ug/l	
78-59-1	Isophorone	ND	5.0	0.47	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.36	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.40	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.51	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.48	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.25	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.25	ug/l	
110-86-1	Pyridine	ND	10	0.36	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	48%	10-79%
4165-62-2	Phenol-d5	34%	10-72%
118-79-6	2,4,6-Tribromophenol	90%	35-138%
4165-60-0	Nitrobenzene-d5	77%	30-116%
321-60-8	2-Fluorobiphenyl	73%	35-107%
1718-51-0	Terphenyl-d14	98%	43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

Method Blank Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42731-MB	I95266.D	1	04/23/15	MR	04/19/15	OP42731	MSI3564

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC38034-1, MC38034-2, MC38034-3, MC38034-4

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.0075	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.0084	ug/l	
120-12-7	Anthracene	ND	0.10	0.0098	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.015	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.019	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.013	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.0074	ug/l	
86-73-7	Fluorene	ND	0.10	0.015	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.020	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	0.012	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	0.011	ug/l	
85-01-8	Phenanthrene	ND	0.050	0.011	ug/l	
129-00-0	Pyrene	ND	0.10	0.0085	ug/l	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	77%	26-121%
321-60-8	2-Fluorobiphenyl	70%	28-107%
1718-51-0	Terphenyl-d14	100%	29-129%

Blank Spike Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42730-BS	W21611.D	1	04/23/15	KD	04/19/15	OP42730	MSW924

The QC reported here applies to the following samples: Method: SW846 8270D

MC38034-1, MC38034-2, MC38034-3, MC38034-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	50	18.8	38	10-73
95-57-8	2-Chlorophenol	50	37.0	74	47-106
59-50-7	4-Chloro-3-methyl phenol	50	46.3	93	50-111
120-83-2	2,4-Dichlorophenol	50	42.1	84	53-114
105-67-9	2,4-Dimethylphenol	50	38.8	78	23-110
51-28-5	2,4-Dinitrophenol	50	53.1	106	10-156
534-52-1	4,6-Dinitro-o-cresol	50	57.1	114	17-159
95-48-7	2-Methylphenol	50	33.8	68	40-92
	3&4-Methylphenol	100	69.3	69	38-86
88-75-5	2-Nitrophenol	50	43.3	87	53-115
100-02-7	4-Nitrophenol	50	24.2	48	10-83
87-86-5	Pentachlorophenol	50	48.0	96	41-122
108-95-2	Phenol	50	19.4	39	15-55
95-95-4	2,4,5-Trichlorophenol	50	48.8	98	52-120
88-06-2	2,4,6-Trichlorophenol	50	47.6	95	53-119
62-53-3	Aniline	50	24.2	48	26-87
101-55-3	4-Bromophenyl phenyl ether	50	49.8	100	65-127
85-68-7	Butyl benzyl phthalate	50	49.5	99	68-128
100-51-6	Benzyl Alcohol	50	36.4	73	13-108
91-58-7	2-Chloronaphthalene	50	44.3	89	58-120
106-47-8	4-Chloroaniline	50	36.3	73	48-106
111-91-1	bis(2-Chloroethoxy)methane	50	39.5	79	42-118
111-44-4	bis(2-Chloroethyl)ether	50	37.1	74	35-123
108-60-1	bis(2-Chloroisopropyl)ether	50	40.7	81	37-160
7005-72-3	4-Chlorophenyl phenyl ether	50	49.1	98	57-121
122-66-7	1,2-Diphenylhydrazine	50	42.9	86	54-128
121-14-2	2,4-Dinitrotoluene	50	55.0	110	64-127
606-20-2	2,6-Dinitrotoluene	50	50.8	102	55-135
91-94-1	3,3'-Dichlorobenzidine	50	40.7	81	49-141
132-64-9	Dibenzofuran	50	46.5	93	60-107
84-74-2	Di-n-butyl phthalate	50	49.3	99	68-117
117-84-0	Di-n-octyl phthalate	50	50.0	100	60-139
84-66-2	Diethyl phthalate	50	50.5	101	51-127
131-11-3	Dimethyl phthalate	50	49.5	99	22-147
117-81-7	bis(2-Ethylhexyl)phthalate	50	51.6	103	69-133
118-74-1	Hexachlorobenzene	50	51.6	103	62-131

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42730-BS	W21611.D	1	04/23/15	KD	04/19/15	OP42730	MSW924

The QC reported here applies to the following samples: Method: SW846 8270D

MC38034-1, MC38034-2, MC38034-3, MC38034-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	14.4	29	10-74
67-72-1	Hexachloroethane	50	34.6	69	15-104
78-59-1	Isophorone	50	35.9	72	44-110
88-74-4	2-Nitroaniline	50	51.8	104	63-123
99-09-2	3-Nitroaniline	50	44.3	89	63-112
100-01-6	4-Nitroaniline	50	50.7	101	58-114
98-95-3	Nitrobenzene	50	38.2	76	37-130
62-75-9	n-Nitrosodimethylamine	50	30.1	60	18-80
621-64-7	N-Nitroso-di-n-propylamine	50	38.2	76	44-128
86-30-6	N-Nitrosodiphenylamine	50	42.7	85	62-107
110-86-1	Pyridine	50	17.7	35	10-77

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	52%	10-79%
4165-62-2	Phenol-d5	38%	10-72%
118-79-6	2,4,6-Tribromophenol	107%	35-138%
4165-60-0	Nitrobenzene-d5	81%	30-116%
321-60-8	2-Fluorobiphenyl	80%	35-107%
1718-51-0	Terphenyl-d14	103%	43-135%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42731-BS	I95267.D	1	04/23/15	MR	04/19/15	OP42731	MSI3564

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC38034-1, MC38034-2, MC38034-3, MC38034-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	41.8	84	45-116
208-96-8	Acenaphthylene	50	39.0	78	34-110
120-12-7	Anthracene	50	45.4	91	50-117
56-55-3	Benzo(a)anthracene	50	53.0	106	55-139
50-32-8	Benzo(a)pyrene	50	55.6	111	48-131
205-99-2	Benzo(b)fluoranthene	50	50.0	100	49-141
191-24-2	Benzo(g,h,i)perylene	50	57.8	116	60-130
207-08-9	Benzo(k)fluoranthene	50	50.0	100	49-133
218-01-9	Chrysene	50	48.6	97	52-128
53-70-3	Dibenzo(a,h)anthracene	50	56.3	113	60-136
206-44-0	Fluoranthene	50	47.0	94	46-132
86-73-7	Fluorene	50	44.7	89	53-120
193-39-5	Indeno(1,2,3-cd)pyrene	50	57.9	116	57-134
90-12-0	1-Methylnaphthalene	50	38.7	77	41-105
91-57-6	2-Methylnaphthalene	50	39.1	78	36-111
85-01-8	Phenanthrene	50	44.2	88	50-120
129-00-0	Pyrene	50	46.5	93	48-127

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	82%	26-121%
321-60-8	2-Fluorobiphenyl	76%	28-107%
1718-51-0	Terphenyl-d14	104%	29-129%

* = Outside of Control Limits.

7.2.2

7

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42730-MS	W21612.D	1	04/23/15	KD	04/19/15	OP42730	MSW924
OP42730-MSD	W21613.D	1	04/23/15	KD	04/19/15	OP42730	MSW924
MC38000-10	W21614.D	1	04/23/15	KD	04/19/15	OP42730	MSW924

The QC reported here applies to the following samples: Method: SW846 8270D

MC38034-1, MC38034-2, MC38034-3, MC38034-4

CAS No.	Compound	MC38000-10 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		50	17.3	35	50	16.3	33	6	10-76/20
95-57-8	2-Chlorophenol	ND		50	37.9	76	50	37.1	74	2	37-112/20
59-50-7	4-Chloro-3-methyl phenol	ND		50	44.5	89	50	45.6	91	2	43-115/20
120-83-2	2,4-Dichlorophenol	ND		50	41.9	84	50	42.3	85	1	47-119/20
105-67-9	2,4-Dimethylphenol	ND		50	37.1	74	50	38.5	77	4	15-118/20
51-28-5	2,4-Dinitrophenol	ND		50	57.8	116	50	52.9	106	9	10-165/20
534-52-1	4,6-Dinitro-o-cresol	ND		50	59.4	119	50	59.7	119	1	13-165/20
95-48-7	2-Methylphenol	ND		50	33.0	66	50	33.0	66	0	30-99/20
	3&4-Methylphenol	ND		100	66.8	67	100	65.7	66	2	32-89/20
88-75-5	2-Nitrophenol	ND		50	43.6	87	50	43.1	86	1	44-120/20
100-02-7	4-Nitrophenol	ND		50	22.3	45	50	21.7	43	3	10-93/20
87-86-5	Pentachlorophenol	ND		50	49.3	99	50	48.5	97	2	33-131/20
108-95-2	Phenol	ND		50	18.2	36	50	18.4	37	1	15-53/20
95-95-4	2,4,5-Trichlorophenol	ND		50	49.4	99	50	49.8	100	1	45-126/20
88-06-2	2,4,6-Trichlorophenol	ND		50	47.7	95	50	49.4	99	4	45-124/20
62-53-3	Aniline	ND		50	16.8	34	50	29.4	59	55* [a]	18-91/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	52.5	105	50	53.5	107	2	57-131/20
85-68-7	Butyl benzyl phthalate	ND		50	52.8	106	50	51.5	103	2	58-135/20
100-51-6	Benzyl Alcohol	ND		50	36.2	72	50	35.3	71	3	10-109/20
91-58-7	2-Chloronaphthalene	ND		50	45.6	91	50	46.5	93	2	51-123/20
106-47-8	4-Chloroaniline	ND		50	27.2	54	50	40.4	81	39* [a]	39-109/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	40.9	82	50	40.6	81	1	36-120/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	38.6	77	50	37.4	75	3	30-124/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	42.6	85	50	41.5	83	3	25-171/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	50.7	101	50	50.7	101	0	51-122/20
122-66-7	1,2-Diphenylhydrazine	ND		50	44.4	89	50	50.9	102	14	47-130/20
121-14-2	2,4-Dinitrotoluene	ND		50	56.8	114	50	56.1	112	1	57-131/20
606-20-2	2,6-Dinitrotoluene	ND		50	52.4	105	50	52.2	104	0	52-135/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	25.3	51	50	55.9	112	75* [a]	25-157/20
132-64-9	Dibenzofuran	ND		50	47.7	95	50	47.7	95	0	54-110/20
84-74-2	Di-n-butyl phthalate	ND		50	50.7	101	50	50.6	101	0	60-122/20
117-84-0	Di-n-octyl phthalate	ND		50	55.3	111	50	53.0	106	4	54-142/20
84-66-2	Diethyl phthalate	ND		50	52.7	105	50	51.2	102	3	40-132/20
131-11-3	Dimethyl phthalate	ND		50	51.5	103	50	51.0	102	1	13-149/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		50	54.9	110	50	54.1	108	1	59-139/20
118-74-1	Hexachlorobenzene	ND		50	54.5	109	50	54.1	108	1	56-135/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42730-MS	W21612.D	1	04/23/15	KD	04/19/15	OP42730	MSW924
OP42730-MSD	W21613.D	1	04/23/15	KD	04/19/15	OP42730	MSW924
MC38000-10	W21614.D	1	04/23/15	KD	04/19/15	OP42730	MSW924

The QC reported here applies to the following samples: Method: SW846 8270D

MC38034-1, MC38034-2, MC38034-3, MC38034-4

CAS No.	Compound	MC38000-10 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		50	16.6	33	50	16.9	34	2	10-73/20
67-72-1	Hexachloroethane	ND		50	39.7	79	50	39.3	79	1	13-103/20
78-59-1	Isophorone	ND		50	36.2	72	50	36.4	73	1	41-110/20
88-74-4	2-Nitroaniline	ND		50	53.7	107	50	54.1	108	1	57-126/20
99-09-2	3-Nitroaniline	ND		50	42.9	86	50	48.0	96	11	53-118/20
100-01-6	4-Nitroaniline	ND		50	49.7	99	50	51.8	104	4	50-119/20
98-95-3	Nitrobenzene	ND		50	39.5	79	50	39.2	78	1	35-127/20
62-75-9	n-Nitrosodimethylamine	ND		50	29.8	60	50	29.4	59	1	11-82/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	39.9	80	50	39.2	78	2	39-129/20
86-30-6	N-Nitrosodiphenylamine	ND		50	44.6	89	50	45.5	91	2	55-112/20
110-86-1	Pyridine	ND		50	18.9	38	50	25.1	50	28* [a]	15-71/20

CAS No.	Surrogate Recoveries	MS	MSD	MC38000-10	Limits
367-12-4	2-Fluorophenol	50%	49%	46%	10-79%
4165-62-2	Phenol-d5	35%	35%	32%	10-72%
118-79-6	2,4,6-Tribromophenol	110%	109%	95%	35-138%
4165-60-0	Nitrobenzene-d5	82%	80%	76%	30-116%
321-60-8	2-Fluorobiphenyl	81%	81%	74%	35-107%
1718-51-0	Terphenyl-d14	108%	106%	99%	43-135%

(a) High RPD due to possible matrix interference and/or sample non-homogeneity.

* = Outside of Control Limits.

7.3.1

7

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42731-MS	I95268.D	1	04/23/15	MR	04/19/15	OP42731	MSI3564
OP42731-MSD	I95269.D	1	04/23/15	MR	04/19/15	OP42731	MSI3564
MC38000-11	I95270.D	1	04/23/15	MR	04/19/15	OP42731	MSI3564

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC38034-1, MC38034-2, MC38034-3, MC38034-4

7.3.2

7

CAS No.	Compound	MC38000-11 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	42.2	84	50	42.4	85	0	36-124/20
208-96-8	Acenaphthylene	ND		50	39.3	79	50	39.5	79	1	25-116/20
120-12-7	Anthracene	0.017	J	50	46.3	93	50	46.0	92	1	42-122/20
56-55-3	Benzo(a)anthracene	ND		50	55.0	110	50	54.5	109	1	45-145/20
50-32-8	Benzo(a)pyrene	ND		50	58.8	118	50	56.1	112	5	40-136/20
205-99-2	Benzo(b)fluoranthene	ND		50	53.6	107	50	50.1	100	7	41-148/20
191-24-2	Benzo(g,h,i)perylene	ND		50	61.0	122	50	57.5	115	6	48-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	53.4	107	50	51.0	102	5	45-131/20
218-01-9	Chrysene	ND		50	49.8	100	50	50.1	100	1	41-135/20
53-70-3	Dibenzo(a,h)anthracene	ND		50	59.9	120	50	56.0	112	7	49-144/20
206-44-0	Fluoranthene	0.039	J	50	48.6	97	50	48.6	97	0	38-136/20
86-73-7	Fluorene	ND		50	46.0	92	50	45.2	90	2	43-127/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	61.6	123	50	57.7	115	7	45-142/20
90-12-0	1-Methylnaphthalene	ND		50	39.3	79	50	38.6	77	2	29-116/20
91-57-6	2-Methylnaphthalene	ND		50	40.2	80	50	39.8	80	1	27-117/20
85-01-8	Phenanthrene	0.025	J	50	45.4	91	50	45.3	91	0	41-126/20
129-00-0	Pyrene	0.030	J	50	48.1	96	50	48.0	96	0	41-131/20

CAS No.	Surrogate Recoveries	MS	MSD	MC38000-11 Limits	
4165-60-0	Nitrobenzene-d5	83%	79%	78%	26-121%
321-60-8	2-Fluorobiphenyl	74%	74%	69%	28-107%
1718-51-0	Terphenyl-d14	106%	106%	101%	29-129%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3564-CC3561	Injection Date:	04/23/15
Lab File ID:	I95265.D	Injection Time:	08:23
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	239757	3.57	502395	4.60	291507	6.12	518482	7.43	403684	10.20	1081059	11.63
Upper Limit [a]	479514	4.07	1004790	5.10	583014	6.62	1036964	7.93	807368	10.70	2162118	12.13
Lower Limit [b]	119879	3.07	251198	4.10	145754	5.62	259241	6.93	201842	9.70	540530	11.13
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP42731-MB	231092	3.56	492621	4.60	284181	6.12	513274	7.43	392143	10.20	1046511	11.63
OP42731-BS	242479	3.57	531934	4.61	304611	6.12	563015	7.43	433344	10.21	1116322	11.63
OP42731-MS	233437	3.57	511325	4.61	293127	6.12	542941	7.43	413974	10.21	1023453	11.63
OP42731-MSD	259752	3.57	560701	4.61	319624	6.12	588280	7.43	441546	10.21	1143725	11.63
MC38000-11	233005	3.56	500244	4.60	292584	6.12	524373	7.43	407568	10.20	1083926	11.63
ZZZZZZ	239866	3.56	510191	4.60	293586	6.12	513843	7.43	413461	10.20	1106197	11.63
ZZZZZZ	212969	3.56	451349	4.60	261764	6.12	470151	7.43	379770	10.20	1032559	11.63
ZZZZZZ	261135	3.57	545440	4.60	313106	6.12	552676	7.43	408465	10.20	1069353	11.63
OP42705-MB	184067	3.56	406414	4.60	245365	6.12	456398	7.42	370264	10.20	1021040	11.63
OP42705-BS	191059	3.56	434556	4.60	254109	6.12	493952	7.43	403794	10.20	1077613	11.63
OP42705-MS	273580	3.57	597600	4.61	335589	6.12	618115	7.44	469703	10.21	1180468	11.64
OP42705-MSD	251316	3.57	545243	4.61	311493	6.12	569585	7.44	438832	10.21	1119817	11.64
MC37976-3	246108	3.57	525610	4.60	303172	6.12	551155	7.43	432846	10.20	1125703	11.64
ZZZZZZ	237200	3.57	510658	4.60	298318	6.12	532517	7.43	418899	10.20	1095316	11.63
ZZZZZZ	218068	3.56	469129	4.60	278281	6.12	504109	7.43	411987	10.20	1107447	11.63
ZZZZZZ	210228	3.57	450783	4.60	271460	6.12	499818	7.43	406583	10.20	1098419	11.63
ZZZZZZ	204619	3.56	436770	4.60	263307	6.12	494118	7.43	401397	10.20	1098361	11.63
ZZZZZZ	205491	3.56	438008	4.60	265117	6.12	488522	7.43	400792	10.20	1078044	11.63
ZZZZZZ	217605	3.56	462914	4.60	278286	6.12	514670	7.43	412774	10.20	1043398	11.63
ZZZZZZ	216748	3.56	460246	4.60	279161	6.12	518904	7.43	413324	10.20	1118359	11.63
ZZZZZZ	231702	3.56	499551	4.60	293437	6.12	516567	7.43	413740	10.20	1094590	11.63
ZZZZZZ	247934	3.56	533852	4.60	313369	6.12	509397	7.43	437440	10.20	1159648	11.63
ZZZZZZ	247170	3.56	516784	4.60	304171	6.12	499856	7.43	425782	10.20	1131609	11.63
ZZZZZZ	249578	3.56	524135	4.60	313317	6.12	507765	7.43	439595	10.20	1171693	11.63
ZZZZZZ	245594	3.56	513616	4.60	307605	6.12	531641	7.43	433896	10.20	1152524	11.63
ZZZZZZ	254108	3.56	536906	4.60	317405	6.12	560271	7.43	449774	10.20	1181350	11.63
ZZZZZZ	244037	3.56	520800	4.60	307121	6.12	516051	7.43	427357	10.20	1147582	11.63
ZZZZZZ	258263	3.56	553035	4.60	324362	6.12	527273	7.43	454277	10.20	1206653	11.63

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

7.4.1

7

Semivolatile Internal Standard Area Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3564-CC3561	Injection Date:	04/23/15
Lab File ID:	I95265.D	Injection Time:	08:23
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3565-CC3561	Injection Date:	04/24/15
Lab File ID:	I95296.D	Injection Time:	08:17
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	212964	3.56	455284	4.60	271047	6.12	492887	7.43	389600	10.20	1034954	11.63
Upper Limit [a]	425928	4.06	910568	5.10	542094	6.62	985774	7.93	779200	10.70	2069908	12.13
Lower Limit [b]	106482	3.06	227642	4.10	135524	5.62	246444	6.93	194800	9.70	517477	11.13
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP42767-MB	246824	3.56	525971	4.60	311465	6.12	566061	7.43	448748	10.20	1179862	11.63
OP42767-BS	251501	3.56	562915	4.60	325350	6.12	605754	7.43	464514	10.21	1201535	11.63
OP42767-MS	238386	3.56	533270	4.60	311484	6.12	578146	7.43	445059	10.21	1163807	11.63
OP42767-MSD	213572	3.56	478525	4.60	281565	6.12	533258	7.43	421308	10.21	1123196	11.63
MC38000-22	267193	3.56	577376	4.60	340800	6.12	622323	7.43	475206	10.20	1252349	11.63
ZZZZZZ	247014	3.56	525122	4.60	308157	6.12	552273	7.43	420411	10.20	1127793	11.63
ZZZZZZ	278635	3.56	593116	4.60	344147	6.12	612993	7.43	458105	10.20	1201991	11.63
ZZZZZZ	281137	3.56	590907	4.60	347033	6.12	618669	7.43	462206	10.20	1195360	11.63
ZZZZZZ	257440	3.56	549417	4.60	321493	6.12	577899	7.43	441089	10.20	1179137	11.63
ZZZZZZ	265899	3.57	574803	4.61	361314	6.12	638487	7.44	497182	10.20	1279100	11.63
ZZZZZZ	275481	3.56	587552	4.60	340963	6.12	603881	7.43	464147	10.21	1151295	11.64
ZZZZZZ	269244	3.56	582089	4.60	344172	6.12	621593	7.43	480927	10.20	1256565	11.63
ZZZZZZ	262255	3.57	556695	4.60	329003	6.12	576371	7.43	447681	10.20	1137346	11.63
ZZZZZZ	269482	3.57	582360	4.60	348963	6.12	623107	7.44	482147	10.21	1253757	11.64
MC38034-1	265719	3.56	573404	4.60	339958	6.12	612817	7.43	482784	10.20	1260226	11.63
MC38034-2	274199	3.57	569946	4.61	343545	6.12	610713	7.43	480349	10.20	1233311	11.63
MC38034-3	281883	3.57	597890	4.61	352063	6.12	629069	7.43	498152	10.20	1278132	11.63
MC38034-4	258733	3.56	541265	4.60	311622	6.12	553606	7.43	415779	10.20	1022585	11.63

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW924-CC902	Injection Date:	04/23/15
Lab File ID:	W21601.D	Injection Time:	08:18
Instrument ID:	GCMSW	Method:	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	288631	5.11	1101889	6.22	637784	7.76	1145647	9.05	1197242	11.60	1188230	13.28
Upper Limit [a]	577262	5.61	2203778	6.72	1275568	8.26	2291294	9.55	2394484	12.10	2376460	13.78
Lower Limit [b]	144316	4.61	550945	5.72	318892	7.26	572824	8.55	598621	11.10	594115	12.78
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP42704-MB	260192	5.10	982938	6.21	594634	7.76	1011224	9.05	1095299	11.59	1126318	13.28
OP42704-BS	283154	5.11	1058870	6.21	624535	7.76	1099492	9.05	1192747	11.59	1199863	13.28
OP42704-MS	262293	5.11	990720	6.21	590453	7.76	1029688	9.05	1123991	11.59	1159740	13.28
OP42704-MSD	246887	5.11	932208	6.21	552500	7.76	977904	9.05	1073031	11.59	1109774	13.28
MC37976-3	266963	5.10	1009476	6.21	611045	7.76	1032437	9.05	1082882	11.59	1092726	13.28
ZZZZZZ	271506	5.10	1009337	6.21	613894	7.76	1042079	9.05	1083546	11.59	1077874	13.28
ZZZZZZ	263147	5.10	1003811	6.21	600297	7.76	1055076	9.05	1156585	11.59	1208242	13.28
ZZZZZZ	262968	5.11	976377	6.21	603878	7.76	1045982	9.05	1166068	11.59	1204171	13.28
OP42730-MB	255550	5.10	965337	6.21	585775	7.76	1021983	9.05	1115788	11.59	1140718	13.28
OP42730-BS	273488	5.11	1022883	6.21	610698	7.76	1074163	9.05	1171570	11.59	1194858	13.28
OP42730-MS	300568	5.11	1130785	6.21	654560	7.76	1140391	9.05	1160911	11.59	1117432	13.28
OP42730-MSD	310140	5.11	1151589	6.21	663105	7.76	1132453	9.05	1176208	11.59	1162243	13.28
MC38000-10	273457	5.10	1040495	6.21	622558	7.76	1090143	9.05	1179181	11.59	1201203	13.28
ZZZZZZ	295944	5.10	1095184	6.21	647842	7.76	1106838	9.05	1166456	11.59	1161886	13.28
ZZZZZZ	330910	5.11	1326840	6.63	676889	7.76	1214209	9.05	1227373	11.59	1194959	13.28
ZZZZZZ	279076	5.10	1048982	6.21	624343	7.76	1077041	9.05	1156746	11.59	1165049	13.28
ZZZZZZ	269900	5.10	1020838	6.21	618569	7.76	1056845	9.05	1153791	11.59	1184731	13.28
ZZZZZZ	265704	5.10	991351	6.21	610580	7.76	1048247	9.05	1132389	11.59	1163368	13.28
ZZZZZZ	319778	5.11	1163882	6.21	705119	7.76	1152388	9.05	1150823	11.59	1152219	13.28
MC38034-1	281762	5.10	1064686	6.21	644048	7.76	1112210	9.05	1196158	11.59	1219802	13.28
MC38034-2	282681	5.11	1036953	6.21	637744	7.76	1096873	9.05	1196391	11.59	1209712	13.28
MC38034-3	325634	5.11	1190736	6.21	721770	7.76	1212024	9.05	1211602	11.59	1196915	13.28
MC38034-4	244780	5.10	928330	6.21	558473	7.76	984291	9.05	1064634	11.59	1098966	13.28
ZZZZZZ	266622	5.10	1011794	6.21	613870	7.76	1072981	9.05	1155589	11.59	1173009	13.27
ZZZZZZ	264456	5.10	980236	6.21	596159	7.76	1026221	9.04	1149097	11.59	1162378	13.27
ZZZZZZ	267619	5.10	991995	6.21	607589	7.76	1065269	9.05	1154980	11.59	1182085	13.27
ZZZZZZ	291502	5.11	1054337	6.21	647080	7.76	1072361	9.05	1126244	11.59	1107666	13.27

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

7.4.3

7

Semivolatile Internal Standard Area Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW924-CC902	Injection Date:	04/23/15
Lab File ID:	W21601.D	Injection Time:	08:18
Instrument ID:	GCMSW	Method:	SW846 8270D

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.4.3

7

Semivolatile Surrogate Recovery Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8270D Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC38034-1	W21621.D	37	26	92	68	66	98
MC38034-2	W21622.D	55	37	106	81	77	97
MC38034-3	W21623.D	55	33	107	81	77	105
MC38034-4	W21624.D	45	31	99	81	80	98
OP42730-BS	W21611.D	52	38	107	81	80	103
OP42730-MB	W21610.D	48	34	90	77	73	98
OP42730-MS	W21612.D	50	35	110	82	81	108
OP42730-MSD	W21613.D	49	35	109	80	81	106

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	10-79%
S2 = Phenol-d5	10-72%
S3 = 2,4,6-Tribromophenol	35-138%
S4 = Nitrobenzene-d5	30-116%
S5 = 2-Fluorobiphenyl	35-107%
S6 = Terphenyl-d14	43-135%

Semivolatile Surrogate Recovery Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8270D BY SIM Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC38034-1	I95311.D	69	61	100
MC38034-2	I95312.D	80	71	102
MC38034-3	I95313.D	78	71	104
MC38034-4	I95314.D	82	74	103
OP42731-BS	I95267.D	82	76	104
OP42731-MB	I95266.D	77	70	100
OP42731-MS	I95268.D	83	74	106
OP42731-MSD	I95269.D	79	74	106

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	26-121%
S2 = 2-Fluorobiphenyl	28-107%
S3 = Terphenyl-d14	29-129%

7.5.2

7

New England ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

8

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries

Method Blank Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42706-MB	BB62824.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420

The QC reported here applies to the following samples: Method: SW846 8011

MC38034-1, MC38034-2, MC38034-3, MC38034-4, MC38034-6

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.0061	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.0061	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	Bromofluorobenzene (S)	138%	60-140%
460-00-4	Bromofluorobenzene (S)	135%	60-140%

8.1.1

8

Blank Spike Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL.

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42706-BS	BB62825.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420

The QC reported here applies to the following samples: Method: SW846 8011

MC38034-1, MC38034-2, MC38034-3, MC38034-4, MC38034-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.078	110	45-149
106-93-4	1,2-Dibromoethane	0.071	0.082	115	51-149

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	109%	60-140%
460-00-4	Bromofluorobenzene (S)	103%	60-140%

8.2.1

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42706-MS	BB62826.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420
OP42706-MSD	BB62827.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420
MC37976-3	BB62828.D	1	04/18/15	NK	04/16/15	OP42706	GBB3420

The QC reported here applies to the following samples: Method: SW846 8011

MC38034-1, MC38034-2, MC38034-3, MC38034-4, MC38034-6

CAS No.	Compound	MC37976-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	ND		0.0672	0.078	116	0.0681	0.077	113	1	31-169/30
106-93-4	1,2-Dibromoethane	ND		0.0672	0.058	86	0.0681	0.061	90	5	34-175/30

CAS No.	Surrogate Recoveries	MS	MSD	MC37976-3	Limits
460-00-4	Bromofluorobenzene (S)	100%	102%	112%	60-140%
460-00-4	Bromofluorobenzene (S)	115%	115%	128%	60-140%

* = Outside of Control Limits.

8.3.1

Volatile Surrogate Recovery Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8011 Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
MC38034-1	BB62841.D	112	125
MC38034-2	BB62842.D	112	126
MC38034-3	BB62843.D	107	136
MC38034-4	BB62845.D	114	116
MC38034-6	BB62846.D	106	113
OP42706-BS	BB62825.D	109	103
OP42706-MB	BB62824.D	138	135
OP42706-MS	BB62826.D	100	115
OP42706-MSD	BB62827.D	102	115

Surrogate Compounds	Recovery Limits
S1 = Bromofluorobenzene (S)	60-140%

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

8.4.1

GC Surrogate Retention Time Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBB3420-CC3420	Injection Date:	04/18/15
Lab File ID:	BB62822.D	Injection Time:	02:18
Instrument ID:	GCBB	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	6.89	7.25

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	BB62823.D	04/18/15	02:48	6.88	7.25
OP42706-MB	BB62824.D	04/18/15	03:17	6.88	7.25
OP42706-BS	BB62825.D	04/18/15	03:46	6.88	7.25
OP42706-MS	BB62826.D	04/18/15	04:16	6.88	7.25
OP42706-MSD	BB62827.D	04/18/15	04:45	6.88	7.25
MC37976-3	BB62828.D	04/18/15	05:14	6.88	7.25
ZZZZZZ	BB62829.D	04/18/15	05:43	6.88	7.25
ZZZZZZ	BB62830.D	04/18/15	06:11	6.88	7.25
ZZZZZZ	BB62831.D	04/18/15	06:39	6.88	7.25
ZZZZZZ	BB62832.D	04/18/15	07:07	6.88	7.25

Surrogate Compounds

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.5.1

GC Surrogate Retention Time Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBB3420-CC3420	Injection Date:	04/18/15
Lab File ID:	BB62833.D	Injection Time:	07:35
Instrument ID:	GCBB	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	6.88	7.25

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	BB62834.D	04/18/15	08:03	6.88	7.25
ZZZZZZ	BB62835.D	04/18/15	08:32	6.88	7.26
ZZZZZZ	BB62836.D	04/18/15	09:01	6.88	7.25
ZZZZZZ	BB62837.D	04/18/15	09:30	6.88	7.25
ZZZZZZ	BB62838.D	04/18/15	09:58	6.88	7.25
ZZZZZZ	BB62839.D	04/18/15	10:26	6.88	7.25
ZZZZZZ	BB62840.D	04/18/15	10:54	6.88	7.25
MC38034-1	BB62841.D	04/18/15	11:22	6.88	7.25
MC38034-2	BB62842.D	04/18/15	11:50	6.88	7.25
MC38034-3	BB62843.D	04/18/15	12:19	6.88	7.25

Surrogate Compounds

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.5.2

GC Surrogate Retention Time Summary

Job Number: MC38034
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBB3420-CC3420	Injection Date:	04/18/15
Lab File ID:	BB62844.D	Injection Time:	12:47
Instrument ID:	GCBB	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	6.88	7.25

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
MC38034-4	BB62845.D	04/18/15	13:15	6.88	7.25
MC38034-6	BB62846.D	04/18/15	13:43	6.88	7.25
GBB3420-ECC3420	BB62847.D	04/18/15	14:11	6.88	7.25

Surrogate Compounds

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.5.3

Roxana Groundwater Quarterly – 2nd Quarter 2015 Data Review

Laboratory SDG: MC38075

Data Reviewer: Darcy Chase

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 5/6/2015

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2014

Sample Identification	Sample Identification
P93B-ROX-041615	P93B-ROX-041615-Dup
P93C-ROX-041615	P59-ROX-041615
TB-ROX-041615-HCL	TB-ROX-041615-ST

1.0 Data Package Completeness

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

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

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

Yes, the laboratory case narrative indicated PAHs were detected in the method blank. Phenol was qualified due to field duplicate RPD outside evaluation criteria in the field duplicate pair P93B-ROX-041615/P93B-ROX-041615-Dup. VOCs in several samples were diluted due to high levels of target analytes. These issues are addressed further in the appropriate sections below. Additionally, the initial calibration verification for 2-hexanone and hexachlorocyclopentadiene exceeded 30 percent difference (%D).

The cooler receipt form indicated that one of one cooler was received by the laboratory at a temperature of 0.6°C, which is outside the 4ºC ± 2ºC criteria. Samples were received in good condition; therefore, no qualification of data was required.

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
OP42753-MB	PAHs	1-Methylnaphthalene	0.067 µg/L
OP42753-MB	PAHs	2-Methylnaphthalene	0.089 µg/L

Please see Section 12.0 of this review for qualifications regarding samples associated with 1-methylnaphthalene and 2-methylnaphthalene in method blank OP42753-MB.

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

Yes

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

Yes

Field ID	Field Duplicate ID
P93B-ROX-041615	P93B-ROX-041615-Dup

Were field duplicates within evaluation criteria?

No

Field ID	Field Duplicate ID	Parameter	Analyte	RPD	Qualification
P93B-ROX-041615	P93B-ROX-041615-Dup	SVOCs	Phenol	**26**	**J/J**

11.0 Sample Dilutions

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

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

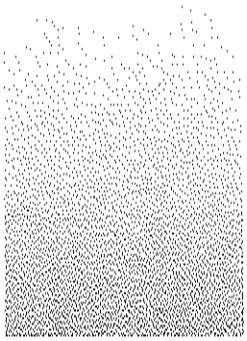
Were additional qualifications applied?

Yes, professional judgment was used to qualify as estimated, however not reject, data that was associated with 1-methylnaphthalene and 2-methylnaphthalene in method blank OP42753-MB, due to comparable historical detections.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
P93B-ROX-041615	PAHs	1-Methylnaphthalene	-	**J**
P93B-ROX-041615	PAHs	2-Methylnaphthalene	-	**J**
P93B-ROX-041615-DUP	PAHs	1-Methylnaphthalene	-	**J**
P93B-ROX-041615-DUP	PAHs	2-Methylnaphthalene	-	**J**
P93C-ROX-041615	PAHs	1-Methylnaphthalene	-	**J**
P93-ROX-041615	PAHs	2-Methylnaphthalene	-	**J**

New England ACCUTEST LABORATORIES

05/06/15



Technical Report for

Shell Oil

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana,

Accutest Job Number: MC38075

Sampling Date: 04/16/15

Report to:

AECOM, INC.

darcy.chase@urs.com

ATTN: Darcy Chase

Total number of pages in report: 83

Reviewed on 5/6/15 DAC

Reza Pand
Lab Director

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Sections: 1 2 3 4 5 6 7 8

Table of Contents

-1-

Section 1: Sample Summary 3
Section 2: Case Narrative/Conformance Summary 4
Section 3: Summary of Hits 6
Section 4: Sample Results 8
4.1: MC38075-1: P93B-ROX-041615 9
4.2: MC38075-2: P93B-ROX-041615-DUP 16
4.3: MC38075-3: P93C-ROX-041615 23
4.4: MC38075-4: P59-ROX-041615 30
4.5: MC38075-5: TB-ROX-041615-HCL 37
4.6: MC38075-6: TB-ROX-041615-ST 40
Section 5: Misc. Forms 41
5.1: Chain of Custody 42
5.2: Sample Tracking Chronicle 44
5.3: Internal Chain of Custody 46
Section 6: GC/MS Volatiles - QC Data Summaries 48
6.1: Method Blank Summary 49
6.2: Blank Spike Summary 53
6.3: Matrix Spike/Matrix Spike Duplicate Summary 57
6.4: Internal Standard Area Summaries 61
6.5: Surrogate Recovery Summaries 63
Section 7: GC/MS Semi-volatiles - QC Data Summaries 64
7.1: Method Blank Summary 65
7.2: Blank Spike Summary 68
7.3: Matrix Spike/Matrix Spike Duplicate Summary 71
7.4: Internal Standard Area Summaries 74
7.5: Surrogate Recovery Summaries 76
Section 8: GC Volatiles - QC Data Summaries 78
8.1: Method Blank Summary 79
8.2: Blank Spike Summary 80
8.3: Matrix Spike/Matrix Spike Duplicate Summary 81
8.4: Surrogate Recovery Summaries 82
8.5: GC Surrogate Retention Time Summaries 83

Sample Summary

Shell Oil

Job No: MC38075

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
MC38075-1	04/16/15	12:25 DCES	04/17/15	AQ	Ground Water	P93B-ROX-041615
MC38075-2	04/16/15	12:25 DCES	04/17/15	AQ	Ground Water	P93B-ROX-041615-DUP
MC38075-3	04/16/15	14:45 DCES	04/17/15	AQ	Ground Water	P93C-ROX-041615
MC38075-4	04/16/15	15:35 DCES	04/17/15	AQ	Ground Water	P59-ROX-041615
MC38075-5	04/16/15	00:00 DCES	04/17/15	AQ	Trip Blank Water	TB-ROX-041615-HCL
MC38075-6	04/16/15	00:00 DCES	04/17/15	AQ	Trip Blank Water	TB-ROX-041615-ST

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	MC38075
Site:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central	**Report Date**	5/5/2015 8:56:12 AM

4 Sample(s), 2 Trip Blank(s) and 0 Field Blank(s) were collected on 04/16/2015 and were received at Accutest on 04/17/2015 properly preserved, at 0.6 Deg. C and intact. These Samples received an Accutest job number of MC38075. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report. 1-Chlorohexane, Benzenethiol, Dibenz(a,h)acridine, Indene, and Quinoline were searched in the library search and reported only if detections were found.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix: AQ **Batch ID:** MSV1388

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC38051-1MS, MC38051-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- MC38051-1MS/MSD for 2-Chloroethyl vinyl ether are outside control limits due to possible matrix interference. Refer to Blank Spike.
- Initial calibration verification standard MSV1332-ICV1332 for 2-hexanone exceed 30% Difference (response biased high). Associated samples are non-detect for these compounds.
- Continuing calibration check standard MSV1389-ECC1332 is not associated with this job.

Matrix: AQ **Batch ID:** MSV1390

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC38219-4MS, MC38219-4MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Extractables by GCMS By Method SW846 8270D

Matrix: AQ **Batch ID:** OP42752

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC38000-17MS, MC38000-17MSD were used as the QC samples indicated.
- Initial calibration verification MSW902-ICV902 for Hexachlorocyclopentadiene exceed 30% Difference. Hexachlorocyclopentadiene is within c riteria in continuing calibration check MSW925-CC902.

Extractables by GCMS By Method SW846 8270D BY SIM

Matrix: AQ **Batch ID:** OP42753

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC38000-18MS, MC38000-18MSD were used as the QC samples indicated.
- Sample(s) MC38075-1, MC38075-2, MC38075-3 have compound(s) reported with a "B" qualifier, indicating analyte is found in the associated method blank.

Volatiles by GC By Method SW846 8011

Matrix: AQ	Batch ID: OP42754

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC38000-19MS, MC38000-19MSD were used as the QC samples indicated.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC38075).

Summary of Hits

Job Number: MC38075
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Collected: 04/16/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC38075-1	P93B-ROX-041615					
Benzene		400000	5000	2700	ug/l	SW846 8260C
tert-Butylbenzene		1.0 J	5.0	0.57	ug/l	SW846 8260C
Ethylbenzene		94.7	1.0	0.24	ug/l	SW846 8260C
Isopropylbenzene		22.6	5.0	0.27	ug/l	SW846 8260C
Naphthalene		3.3 J	5.0	2.0	ug/l	SW846 8260C
n-Propylbenzene		28.6	5.0	0.29	ug/l	SW846 8260C
Tetrachloroethene		0.73 J	1.0	0.21	ug/l	SW846 8260C
Toluene		111	1.0	0.29	ug/l	SW846 8260C
1,2,4-Trimethylbenzene		12.4	5.0	0.29	ug/l	SW846 8260C
1,3,5-Trimethylbenzene		4.3 J	5.0	0.20	ug/l	SW846 8260C
m,p-Xylene		99.3	1.0	0.47	ug/l	SW846 8260C
o-Xylene		37.8	1.0	0.22	ug/l	SW846 8260C
Xylene (total)		137	1.0	0.22	ug/l	SW846 8260C
2,4-Dimethylphenol		0.99 J	11	0.36	ug/l	SW846 8270D
Phenol		104 J	5.3	0.34	ug/l	SW846 8270D
1-Methylnaphthalene		0.034 JB J	2.1	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		0.080 JB J	2.1	0.012	ug/l	SW846 8270D BY SIM
MC38075-2	P93B-ROX-041615-DUP					
Benzene		388000	5000	2700	ug/l	SW846 8260C
Ethylbenzene		249 J	1000	240	ug/l	SW846 8260C
Tetrachloroethene		216 J	1000	210	ug/l	SW846 8260C
Xylene (total)		338 J	1000	220	ug/l	SW846 8260C
2,4-Dimethylphenol		0.84 J	11	0.36	ug/l	SW846 8270D
Phenol		80.0 J	5.3	0.34	ug/l	SW846 8270D
Fluorene		0.020 J	0.11	0.016	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		0.028 JB J	2.1	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		0.048 JB J	2.1	0.012	ug/l	SW846 8270D BY SIM
MC38075-3	P93C-ROX-041615					
Benzene		55300	500	270	ug/l	SW846 8260C
Toluene		29.5 J	100	29	ug/l	SW846 8260C
Phenol		21.5	5.4	0.35	ug/l	SW846 8270D
1-Methylnaphthalene		0.060 JB J	2.2	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		0.084 JB J	2.2	0.012	ug/l	SW846 8270D BY SIM
Phenanthrene		0.024 J	0.054	0.012	ug/l	SW846 8270D BY SIM
MC38075-4	P59-ROX-041615					
Benzene		9430	100	54	ug/l	SW846 8260C
Ethylbenzene		2130	10	2.4	ug/l	SW846 8260C

Summary of Hits

Job Number: MC38075
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Collected: 04/16/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Isopropylbenzene		43.2 J	50	2.7	ug/l	SW846 8260C
Naphthalene		161	50	20	ug/l	SW846 8260C
n-Propylbenzene		76.3	50	2.9	ug/l	SW846 8260C
Tetrachloroethene		3.2 J	10	2.1	ug/l	SW846 8260C
Toluene		690	10	2.9	ug/l	SW846 8260C
1,2,4-Trimethylbenzene		576	50	2.9	ug/l	SW846 8260C
1,3,5-Trimethylbenzene		177	50	2.0	ug/l	SW846 8260C
m,p-Xylene		4780	10	4.7	ug/l	SW846 8260C
o-Xylene		534	10	2.2	ug/l	SW846 8260C
Xylene (total)		5320	10	2.2	ug/l	SW846 8260C
2,4-Dimethylphenol		165	11	0.36	ug/l	SW846 8270D
2-Methylphenol		66.1	11	0.32	ug/l	SW846 8270D
3&4-Methylphenol		168	11	0.48	ug/l	SW846 8270D
Phenol		90.9	5.4	0.34	ug/l	SW846 8270D
Acenaphthene		0.31	0.11	0.0081	ug/l	SW846 8270D BY SIM
Fluoranthene		0.078 J	0.11	0.0080	ug/l	SW846 8270D BY SIM
Fluorene		0.28	0.11	0.016	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		13.6	2.2	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		18.9	2.2	0.012	ug/l	SW846 8270D BY SIM
Phenanthrene		0.81	0.054	0.012	ug/l	SW846 8270D BY SIM
Pyrene		0.14	0.11	0.0091	ug/l	SW846 8270D BY SIM
Total TIC, Semi-Volatile		57 J			ug/l	

MC38075-5 **TB-ROX-041615-HCL**

No hits reported in this sample.

MC38075-6 **TB-ROX-041615-ST**

No hits reported in this sample.

New England ACCUTEST LABORATORIES

4

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	P93B-ROX-041615		
Lab Sample ID:	MC38075-1	**Date Sampled:**	04/16/15
Matrix:	AQ - Ground Water	**Date Received:**	04/17/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38533.D	1	04/29/15	KD	n/a	n/a	MSV1388
Run #2	V38591.D	10000	04/30/15	KD	n/a	n/a	MSV1390

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	400000 [a]	5000	2700	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	1.0	5.0	0.57	ug/l	J
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93B-ROX-041615		
Lab Sample ID:	MC38075-1	Date Sampled:	04/16/15
Matrix:	AQ - Ground Water	Date Received:	04/17/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	94.7	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	22.6	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	3.3	5.0	2.0	ug/l	J
103-65-1	n-Propylbenzene	28.6	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	0.73	1.0	0.21	ug/l	J
108-88-3	Toluene	111	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	12.4	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	4.3	5.0	0.20	ug/l	J
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	99.3	1.0	0.47	ug/l	
95-47-6	o-Xylene	37.8	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	137	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93B-ROX-041615		
Lab Sample ID:	MC38075-1	**Date Sampled:**	04/16/15
Matrix:	AQ - Ground Water	**Date Received:**	04/17/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%	128%	72-133%
2037-26-5	Toluene-D8	94%	102%	85-114%
460-00-4	4-Bromofluorobenzene	93%	99%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93B-ROX-041615		
Lab Sample ID:	MC38075-1	**Date Sampled:**	04/16/15
Matrix:	AQ - Ground Water	**Date Received:**	04/17/15
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21638.D	1	04/24/15	KD	04/20/15	OP42752	MSW925
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.3	0.31	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.53	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.49	ug/l	
105-67-9	2,4-Dimethylphenol	0.99	11	0.36	ug/l	J
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	0.62	ug/l	
95-48-7	2-Methylphenol	ND	11	0.31	ug/l	
	3&4-Methylphenol	ND	11	0.47	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.49	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	11	0.36	ug/l	
108-95-2	Phenol	104 J	5.3	0.34	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.47	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.47	ug/l	
62-53-3	Aniline	ND	11	0.48	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.26	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.34	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	0.36	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.38	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	0.52	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.44	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.44	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	0.27	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	0.31	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.39	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.40	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.56	ug/l	
132-64-9	Dibenzofuran	ND	2.1	0.26	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.3	0.28	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	0.30	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93B-ROX-041615		
Lab Sample ID:	MC38075-1	**Date Sampled:**	04/16/15
Matrix:	AQ - Ground Water	**Date Received:**	04/17/15
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.3	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	5.3	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.33	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.26	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.3	0.30	ug/l	
78-59-1	Isophorone	ND	5.3	0.49	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.38	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.43	ug/l	
100-01-6	4-Nitroaniline	ND	11	0.54	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.51	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	0.27	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.26	ug/l	
110-86-1	Pyridine	ND	11	0.38	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	53%		10-79%
4165-62-2	Phenol-d5	38%		10-72%
118-79-6	2,4,6-Tribromophenol	100%		35-138%
4165-60-0	Nitrobenzene-d5	79%		30-116%
321-60-8	2-Fluorobiphenyl	72%		35-107%
1718-51-0	Terphenyl-d14	96%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93B-ROX-041615		
Lab Sample ID:	MC38075-1	Date Sampled:	04/16/15
Matrix:	AQ - Ground Water	Date Received:	04/17/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95324.D	1	04/27/15	MR	04/20/15	OP42753	MSI3566
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.11	0.0079	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.0088	ug/l	
120-12-7	Anthracene	ND	0.11	0.010	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.053	0.025	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.053	0.020	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.011	ug/l	
218-01-9	Chrysene	ND	0.11	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.016	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.0078	ug/l	
86-73-7	Fluorene	ND	0.11	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.021	ug/l	
90-12-0	1-Methylnaphthalene	0.034 J	2.1	0.013	ug/l	JB
91-57-6	2-Methylnaphthalene	0.080 J	2.1	0.012	ug/l	JB
85-01-8	Phenanthrene	ND	0.053	0.011	ug/l	
129-00-0	Pyrene	ND	0.11	0.0089	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	78%		26-121%
321-60-8	2-Fluorobiphenyl	68%		28-107%
1718-51-0	Terphenyl-d14	101%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93B-ROX-041615		
Lab Sample ID:	MC38075-1	**Date Sampled:**	04/16/15
Matrix:	AQ - Ground Water	**Date Received:**	04/17/15
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62913.D	1	04/21/15	NK	04/20/15	OP42754	GBB3423
Run #2							

	Initial Volume	Final Volume
Run #1	36.8 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0058	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0058	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	109%		60-140%
460-00-4	Bromofluorobenzene (S)	121%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93B-ROX-041615-DUP		
Lab Sample ID:	MC38075-2	**Date Sampled:**	04/16/15
Matrix:	AQ - Ground Water	**Date Received:**	04/17/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38534.D	1000	04/29/15	KD	n/a	n/a	MSV1388
Run #2	V38592.D	10000	04/30/15	KD	n/a	n/a	MSV1390

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10000	2000	ug/l	
107-02-8	Acrolein	ND	25000	11000	ug/l	
107-13-1	Acrylonitrile	ND	5000	2300	ug/l	
71-43-2	Benzene	388000 [a]	5000	2700	ug/l	
108-86-1	Bromobenzene	ND	5000	260	ug/l	
74-97-5	Bromochloromethane	ND	5000	370	ug/l	
75-27-4	Bromodichloromethane	ND	1000	180	ug/l	
75-25-2	Bromoform	ND	1000	390	ug/l	
74-83-9	Bromomethane	ND	2000	790	ug/l	
78-93-3	2-Butanone (MEK)	ND	5000	3000	ug/l	
104-51-8	n-Butylbenzene	ND	5000	500	ug/l	
135-98-8	sec-Butylbenzene	ND	5000	500	ug/l	
98-06-6	tert-Butylbenzene	ND	5000	570	ug/l	
75-15-0	Carbon disulfide	ND	5000	190	ug/l	
56-23-5	Carbon tetrachloride	ND	1000	340	ug/l	
108-90-7	Chlorobenzene	ND	1000	240	ug/l	
75-00-3	Chloroethane	ND	2000	490	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5000	1300	ug/l	
67-66-3	Chloroform	ND	1000	400	ug/l	
74-87-3	Chloromethane	ND	2000	490	ug/l	
95-49-8	o-Chlorotoluene	ND	5000	600	ug/l	
106-43-4	p-Chlorotoluene	ND	5000	460	ug/l	
124-48-1	Dibromochloromethane	ND	1000	220	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1000	240	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1000	240	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1000	370	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2000	530	ug/l	
75-34-3	1,1-Dichloroethane	ND	1000	280	ug/l	
107-06-2	1,2-Dichloroethane	ND	1000	310	ug/l	
75-35-4	1,1-Dichloroethene	ND	1000	280	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1000	310	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1000	480	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93B-ROX-041615-DUP		
Lab Sample ID:	MC38075-2	Date Sampled:	04/16/15
Matrix:	AQ - Ground Water	Date Received:	04/17/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2000	210	ug/l	
142-28-9	1,3-Dichloropropane	ND	5000	290	ug/l	
594-20-7	2,2-Dichloropropane	ND	5000	1700	ug/l	
563-58-6	1,1-Dichloropropene	ND	5000	230	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	500	270	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	500	430	ug/l	
123-91-1	1,4-Dioxane	ND	25000	20000	ug/l	
97-63-2	Ethyl methacrylate	ND	5000	500	ug/l	
100-41-4	Ethylbenzene	249	1000	240	ug/l	J
87-68-3	Hexachlorobutadiene	ND	5000	450	ug/l	
591-78-6	2-Hexanone	ND	5000	2700	ug/l	
98-82-8	Isopropylbenzene	ND	5000	270	ug/l	
99-87-6	p-Isopropyltoluene	ND	5000	320	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1000	350	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5000	770	ug/l	
74-95-3	Methylene bromide	ND	5000	300	ug/l	
75-09-2	Methylene chloride	ND	2000	270	ug/l	
91-20-3	Naphthalene	ND	5000	2000	ug/l	
103-65-1	n-Propylbenzene	ND	5000	290	ug/l	
100-42-5	Styrene	ND	5000	280	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1000	250	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	500	290	ug/l	
127-18-4	Tetrachloroethene	216	1000	210	ug/l	J
108-88-3	Toluene	ND	1000	290	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5000	780	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5000	740	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1000	420	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1000	320	ug/l	
79-01-6	Trichloroethene	ND	1000	250	ug/l	
75-69-4	Trichlorofluoromethane	ND	1000	470	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5000	390	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5000	290	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5000	200	ug/l	
108-05-4	Vinyl Acetate	ND	5000	1400	ug/l	
75-01-4	Vinyl chloride	ND	1000	450	ug/l	
	m,p-Xylene	ND	1000	470	ug/l	
95-47-6	o-Xylene	ND	1000	220	ug/l	
1330-20-7	Xylene (total)	338	1000	220	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93B-ROX-041615-DUP		
Lab Sample ID:	MC38075-2	**Date Sampled:**	04/16/15
Matrix:	AQ - Ground Water	**Date Received:**	04/17/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%	131%	72-133%
2037-26-5	Toluene-D8	98%	103%	85-114%
460-00-4	4-Bromofluorobenzene	99%	100%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93B-ROX-041615-DUP		
Lab Sample ID:	MC38075-2	**Date Sampled:**	04/16/15
Matrix:	AQ - Ground Water	**Date Received:**	04/17/15
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21639.D	1	04/24/15	KD	04/20/15	OP42752	MSW925
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.3	0.31	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.53	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.49	ug/l	
105-67-9	2,4-Dimethylphenol	0.84	11	0.36	ug/l	J
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	0.62	ug/l	
95-48-7	2-Methylphenol	ND	11	0.31	ug/l	
	3&4-Methylphenol	ND	11	0.47	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.49	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	11	0.36	ug/l	
108-95-2	Phenol	80.0 J	5.3	0.34	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.47	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.47	ug/l	
62-53-3	Aniline	ND	11	0.48	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.26	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.34	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	0.36	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.38	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	0.52	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.44	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.44	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	0.27	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	0.31	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.39	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.40	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.56	ug/l	
132-64-9	Dibenzofuran	ND	2.1	0.26	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.3	0.28	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	0.30	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93B-ROX-041615-DUP		
Lab Sample ID:	MC38075-2	**Date Sampled:**	04/16/15
Matrix:	AQ - Ground Water	**Date Received:**	04/17/15
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.3	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	5.3	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.33	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.26	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.3	0.30	ug/l	
78-59-1	Isophorone	ND	5.3	0.49	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.38	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.43	ug/l	
100-01-6	4-Nitroaniline	ND	11	0.54	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.51	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	0.27	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.26	ug/l	
110-86-1	Pyridine	ND	11	0.38	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	42%		10-79%
4165-62-2	Phenol-d5	28%		10-72%
118-79-6	2,4,6-Tribromophenol	100%		35-138%
4165-60-0	Nitrobenzene-d5	73%		30-116%
321-60-8	2-Fluorobiphenyl	71%		35-107%
1718-51-0	Terphenyl-d14	97%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93B-ROX-041615-DUP		
Lab Sample ID:	MC38075-2	Date Sampled:	04/16/15
Matrix:	AQ - Ground Water	Date Received:	04/17/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL.:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL.		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95325.D	1	04/27/15	MR	04/20/15	OP42753	MSI3566
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.11	0.0079	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.0088	ug/l	
120-12-7	Anthracene	ND	0.11	0.010	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.053	0.025	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.053	0.020	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.011	ug/l	
218-01-9	Chrysene	ND	0.11	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.016	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.0078	ug/l	
86-73-7	Fluorene	0.020	0.11	0.016	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.021	ug/l	
90-12-0	1-Methylnaphthalene	0.028 J	2.1	0.013	ug/l	JB J
91-57-6	2-Methylnaphthalene	0.048 J	2.1	0.012	ug/l	JB J
85-01-8	Phenanthrene	ND	0.053	0.011	ug/l	
129-00-0	Pyrene	ND	0.11	0.0089	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	73%		26-121%
321-60-8	2-Fluorobiphenyl	66%		28-107%
1718-51-0	Terphenyl-d14	102%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93B-ROX-041615-DUP		
Lab Sample ID:	MC38075-2	**Date Sampled:**	04/16/15
Matrix:	AQ - Ground Water	**Date Received:**	04/17/15
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62914.D	1	04/21/15	NK	04/20/15	OP42754	GBB3423
Run #2							

	Initial Volume	Final Volume
Run #1	37.8 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0057	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0057	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	113%		60-140%
460-00-4	Bromofluorobenzene (S)	123%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93C-ROX-041615		
Lab Sample ID:	MC38075-3	**Date Sampled:**	04/16/15
Matrix:	AQ - Ground Water	**Date Received:**	04/17/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38535.D	100	04/29/15	KD	n/a	n/a	MSV1388
Run #2	V38593.D	1000	04/30/15	KD	n/a	n/a	MSV1390

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	1000	200	ug/l	
107-02-8	Acrolein	ND	2500	1100	ug/l	
107-13-1	Acrylonitrile	ND	500	230	ug/l	
71-43-2	Benzene	55300 [a]	500	270	ug/l	
108-86-1	Bromobenzene	ND	500	26	ug/l	
74-97-5	Bromochloromethane	ND	500	37	ug/l	
75-27-4	Bromodichloromethane	ND	100	18	ug/l	
75-25-2	Bromoform	ND	100	39	ug/l	
74-83-9	Bromomethane	ND	200	79	ug/l	
78-93-3	2-Butanone (MEK)	ND	500	300	ug/l	
104-51-8	n-Butylbenzene	ND	500	50	ug/l	
135-98-8	sec-Butylbenzene	ND	500	50	ug/l	
98-06-6	tert-Butylbenzene	ND	500	57	ug/l	
75-15-0	Carbon disulfide	ND	500	19	ug/l	
56-23-5	Carbon tetrachloride	ND	100	34	ug/l	
108-90-7	Chlorobenzene	ND	100	24	ug/l	
75-00-3	Chloroethane	ND	200	49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	500	130	ug/l	
67-66-3	Chloroform	ND	100	40	ug/l	
74-87-3	Chloromethane	ND	200	49	ug/l	
95-49-8	o-Chlorotoluene	ND	500	60	ug/l	
106-43-4	p-Chlorotoluene	ND	500	46	ug/l	
124-48-1	Dibromochloromethane	ND	100	22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	100	24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	100	24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	100	37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	200	53	ug/l	
75-34-3	1,1-Dichloroethane	ND	100	28	ug/l	
107-06-2	1,2-Dichloroethane	ND	100	31	ug/l	
75-35-4	1,1-Dichloroethene	ND	100	28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	100	31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	100	48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93C-ROX-041615		
Lab Sample ID:	MC38075-3	**Date Sampled:**	04/16/15
Matrix:	AQ - Ground Water	**Date Received:**	04/17/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	200	21	ug/l	
142-28-9	1,3-Dichloropropane	ND	500	29	ug/l	
594-20-7	2,2-Dichloropropane	ND	500	170	ug/l	
563-58-6	1,1-Dichloropropene	ND	500	23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	50	27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	50	43	ug/l	
123-91-1	1,4-Dioxane	ND	2500	2000	ug/l	
97-63-2	Ethyl methacrylate	ND	500	50	ug/l	
100-41-4	Ethylbenzene	ND	100	24	ug/l	
87-68-3	Hexachlorobutadiene	ND	500	45	ug/l	
591-78-6	2-Hexanone	ND	500	270	ug/l	
98-82-8	Isopropylbenzene	ND	500	27	ug/l	
99-87-6	p-Isopropyltoluene	ND	500	32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	100	35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	500	77	ug/l	
74-95-3	Methylene bromide	ND	500	30	ug/l	
75-09-2	Methylene chloride	ND	200	27	ug/l	
91-20-3	Naphthalene	ND	500	200	ug/l	
103-65-1	n-Propylbenzene	ND	500	29	ug/l	
100-42-5	Styrene	ND	500	28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	100	25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	29	ug/l	
127-18-4	Tetrachloroethene	ND	100	21	ug/l	
108-88-3	Toluene	29.5	100	29	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	ND	500	78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	500	74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	100	42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	100	32	ug/l	
79-01-6	Trichloroethene	ND	100	25	ug/l	
75-69-4	Trichlorofluoromethane	ND	100	47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	500	39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	500	29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	500	20	ug/l	
108-05-4	Vinyl Acetate	ND	500	140	ug/l	
75-01-4	Vinyl chloride	ND	100	45	ug/l	
	m,p-Xylene	ND	100	47	ug/l	
95-47-6	o-Xylene	ND	100	22	ug/l	
1330-20-7	Xylene (total)	ND	100	22	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93C-ROX-041615		
Lab Sample ID:	MC38075-3	**Date Sampled:**	04/16/15
Matrix:	AQ - Ground Water	**Date Received:**	04/17/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%	130%	72-133%
2037-26-5	Toluene-D8	98%	102%	85-114%
460-00-4	4-Bromofluorobenzene	96%	100%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93C-ROX-041615		
Lab Sample ID:	MC38075-3	**Date Sampled:**	04/16/15
Matrix:	AQ - Ground Water	**Date Received:**	04/17/15
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21640.D	1	04/24/15	KD	04/20/15	OP42752	MSW925
Run #2							

	Initial Volume	Final Volume
Run #1	920 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	2.7	ug/l	
95-57-8	2-Chlorophenol	ND	5.4	0.32	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.51	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	0.37	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	0.64	ug/l	
95-48-7	2-Methylphenol	ND	11	0.33	ug/l	
	3&4-Methylphenol	ND	11	0.48	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.51	ug/l	
100-02-7	4-Nitrophenol	ND	22	1.4	ug/l	
87-86-5	Pentachlorophenol	ND	11	0.38	ug/l	
108-95-2	Phenol	21.5	5.4	0.35	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.49	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.49	ug/l	
62-53-3	Aniline	ND	11	0.50	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.4	0.27	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.4	0.26	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.35	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.4	0.37	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.39	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.4	0.54	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.4	0.45	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.4	0.46	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.4	0.28	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.4	0.32	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.40	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.41	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.4	0.58	ug/l	
132-64-9	Dibenzofuran	ND	2.2	0.27	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.4	0.29	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.4	0.31	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93C-ROX-041615		
Lab Sample ID:	MC38075-3	**Date Sampled:**	04/16/15
Matrix:	AQ - Ground Water	**Date Received:**	04/17/15
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.4	0.29	ug/l	
131-11-3	Dimethyl phthalate	ND	5.4	0.26	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.35	ug/l	
118-74-1	Hexachlorobenzene	ND	5.4	0.27	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.4	ug/l	
67-72-1	Hexachloroethane	ND	5.4	0.31	ug/l	
78-59-1	Isophorone	ND	5.4	0.51	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.39	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.44	ug/l	
100-01-6	4-Nitroaniline	ND	11	0.56	ug/l	
98-95-3	Nitrobenzene	ND	5.4	0.53	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.4	0.27	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.4	0.28	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.4	0.27	ug/l	
110-86-1	Pyridine	ND	11	0.39	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	53%		10-79%
4165-62-2	Phenol-d5	37%		10-72%
118-79-6	2,4,6-Tribromophenol	105%		35-138%
4165-60-0	Nitrobenzene-d5	90%		30-116%
321-60-8	2-Fluorobiphenyl	85%		35-107%
1718-51-0	Terphenyl-d14	100%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93C-ROX-041615		
Lab Sample ID:	MC38075-3	Date Sampled:	04/16/15
Matrix:	AQ - Ground Water	Date Received:	04/17/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95326.D	1	04/27/15	MR	04/20/15	OP42753	MSI3566
Run #2							

	Initial Volume	Final Volume
Run #1	920 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.11	0.0082	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.0091	ug/l	
120-12-7	Anthracene	ND	0.11	0.011	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.054	0.026	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.054	0.021	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.014	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.011	ug/l	
218-01-9	Chrysene	ND	0.11	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.016	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.0080	ug/l	
86-73-7	Fluorene	ND	0.11	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.022	ug/l	
90-12-0	1-Methylnaphthalene	0.060 J	2.2	0.013	ug/l	JB J
91-57-6	2-Methylnaphthalene	0.084 J	2.2	0.012	ug/l	JB J
85-01-8	Phenanthrene	0.024	0.054	0.012	ug/l	J
129-00-0	Pyrene	ND	0.11	0.0092	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	90%		26-121%
321-60-8	2-Fluorobiphenyl	77%		28-107%
1718-51-0	Terphenyl-d14	107%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93C-ROX-041615		
Lab Sample ID:	MC38075-3	**Date Sampled:**	04/16/15
Matrix:	AQ - Ground Water	**Date Received:**	04/17/15
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62915.D	1	04/21/15	NK	04/20/15	OP42754	GBB3423
Run #2							

	Initial Volume	Final Volume
Run #1	38.5 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0056	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0055	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	113%		60-140%
460-00-4	Bromofluorobenzene (S)	116%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P59-ROX-041615		
Lab Sample ID:	MC38075-4	**Date Sampled:**	04/16/15
Matrix:	AQ - Ground Water	**Date Received:**	04/17/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38536.D	10	04/29/15	KD	n/a	n/a	MSV1388
Run #2	V38594.D	200	04/30/15	KD	n/a	n/a	MSV1390

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	100	20	ug/l	
107-02-8	Acrolein	ND	250	110	ug/l	
107-13-1	Acrylonitrile	ND	50	23	ug/l	
71-43-2	Benzene	9430 [a]	100	54	ug/l	
108-86-1	Bromobenzene	ND	50	2.6	ug/l	
74-97-5	Bromochloromethane	ND	50	3.7	ug/l	
75-27-4	Bromodichloromethane	ND	10	1.8	ug/l	
75-25-2	Bromoform	ND	10	3.9	ug/l	
74-83-9	Bromomethane	ND	20	7.9	ug/l	
78-93-3	2-Butanone (MEK)	ND	50	30	ug/l	
104-51-8	n-Butylbenzene	ND	50	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	50	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	50	5.7	ug/l	
75-15-0	Carbon disulfide	ND	50	1.9	ug/l	
56-23-5	Carbon tetrachloride	ND	10	3.4	ug/l	
108-90-7	Chlorobenzene	ND	10	2.4	ug/l	
75-00-3	Chloroethane	ND	20	4.9	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	50	13	ug/l	
67-66-3	Chloroform	ND	10	4.0	ug/l	
74-87-3	Chloromethane	ND	20	4.9	ug/l	
95-49-8	o-Chlorotoluene	ND	50	6.0	ug/l	
106-43-4	p-Chlorotoluene	ND	50	4.6	ug/l	
124-48-1	Dibromochloromethane	ND	10	2.2	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	10	2.4	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	10	2.4	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	10	3.7	ug/l	
75-71-8	Dichlorodifluoromethane	ND	20	5.3	ug/l	
75-34-3	1,1-Dichloroethane	ND	10	2.8	ug/l	
107-06-2	1,2-Dichloroethane	ND	10	3.1	ug/l	
75-35-4	1,1-Dichloroethene	ND	10	2.8	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	10	3.1	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	10	4.8	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P59-ROX-041615		
Lab Sample ID:	MC38075-4	**Date Sampled:**	04/16/15
Matrix:	AQ - Ground Water	**Date Received:**	04/17/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	20	2.1	ug/l	
142-28-9	1,3-Dichloropropane	ND	50	2.9	ug/l	
594-20-7	2,2-Dichloropropane	ND	50	17	ug/l	
563-58-6	1,1-Dichloropropene	ND	50	2.3	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	2.7	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	4.3	ug/l	
123-91-1	1,4-Dioxane	ND	250	200	ug/l	
97-63-2	Ethyl methacrylate	ND	50	5.0	ug/l	
100-41-4	Ethylbenzene	2130	10	2.4	ug/l	
87-68-3	Hexachlorobutadiene	ND	50	4.5	ug/l	
591-78-6	2-Hexanone	ND	50	27	ug/l	
98-82-8	Isopropylbenzene	43.2	50	2.7	ug/l	J
99-87-6	p-Isopropyltoluene	ND	50	3.2	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	10	3.5	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	50	7.7	ug/l	
74-95-3	Methylene bromide	ND	50	3.0	ug/l	
75-09-2	Methylene chloride	ND	20	2.7	ug/l	
91-20-3	Naphthalene	161	50	20	ug/l	
103-65-1	n-Propylbenzene	76.3	50	2.9	ug/l	
100-42-5	Styrene	ND	50	2.8	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	10	2.5	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	2.9	ug/l	
127-18-4	Tetrachloroethene	3.2	10	2.1	ug/l	J
108-88-3	Toluene	690	10	2.9	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	50	7.8	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	50	7.4	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	10	4.2	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	10	3.2	ug/l	
79-01-6	Trichloroethene	ND	10	2.5	ug/l	
75-69-4	Trichlorofluoromethane	ND	10	4.7	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	50	3.9	ug/l	
95-63-6	1,2,4-Trimethylbenzene	576	50	2.9	ug/l	
108-67-8	1,3,5-Trimethylbenzene	177	50	2.0	ug/l	
108-05-4	Vinyl Acetate	ND	50	14	ug/l	
75-01-4	Vinyl chloride	ND	10	4.5	ug/l	
	m,p-Xylene	4780	10	4.7	ug/l	
95-47-6	o-Xylene	534	10	2.2	ug/l	
1330-20-7	Xylene (total)	5320	10	2.2	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P59-ROX-041615		
Lab Sample ID:	MC38075-4	**Date Sampled:**	04/16/15
Matrix:	AQ - Ground Water	**Date Received:**	04/17/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%	124%	72-133%
2037-26-5	Toluene-D8	99%	103%	85-114%
460-00-4	4-Bromofluorobenzene	99%	101%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P59-ROX-041615		
Lab Sample ID:	MC38075-4	**Date Sampled:**	04/16/15
Matrix:	AQ - Ground Water	**Date Received:**	04/17/15
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21641.D	1	04/24/15	KD	04/20/15	OP42752	MSW925
Run #2							

	Initial Volume	Final Volume
Run #1	930 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	2.7	ug/l	
95-57-8	2-Chlorophenol	ND	5.4	0.31	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.54	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.50	ug/l	
105-67-9	2,4-Dimethylphenol	165	11	0.36	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	0.63	ug/l	
95-48-7	2-Methylphenol	66.1	11	0.32	ug/l	
	3&4-Methylphenol	168	11	0.48	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.50	ug/l	
100-02-7	4-Nitrophenol	ND	22	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	11	0.37	ug/l	
108-95-2	Phenol	90.9	5.4	0.34	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.49	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.48	ug/l	
62-53-3	Aniline	ND	11	0.49	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.4	0.27	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.4	0.26	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.35	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.4	0.37	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.38	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.4	0.53	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.4	0.45	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.4	0.45	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.4	0.28	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.4	0.32	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.40	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.40	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.4	0.57	ug/l	
132-64-9	Dibenzofuran	ND	2.2	0.27	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.4	0.29	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.4	0.31	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P59-ROX-041615		
Lab Sample ID:	MC38075-4	**Date Sampled:**	04/16/15
Matrix:	AQ - Ground Water	**Date Received:**	04/17/15
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.4	0.29	ug/l	
131-11-3	Dimethyl phthalate	ND	5.4	0.26	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.34	ug/l	
118-74-1	Hexachlorobenzene	ND	5.4	0.26	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.4	0.31	ug/l	
78-59-1	Isophorone	ND	5.4	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.38	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.43	ug/l	
100-01-6	4-Nitroaniline	ND	11	0.55	ug/l	
98-95-3	Nitrobenzene	ND	5.4	0.52	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.4	0.27	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.4	0.28	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.4	0.27	ug/l	
110-86-1	Pyridine	ND	11	0.39	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	52%		10-79%
4165-62-2	Phenol-d5	40%		10-72%
118-79-6	2,4,6-Tribromophenol	116%		35-138%
4165-60-0	Nitrobenzene-d5	93%		30-116%
321-60-8	2-Fluorobiphenyl	72%		35-107%
1718-51-0	Terphenyl-d14	101%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
95-13-6	Indene	5.35	57	ug/l	JN
	Total TIC, Semi-Volatile		57	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P59-ROX-041615		
Lab Sample ID:	MC38075-4	**Date Sampled:**	04/16/15
Matrix:	AQ - Ground Water	**Date Received:**	04/17/15
Method:	SW846 8270D BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95327.D	1	04/27/15	MR	04/20/15	OP42753	MSI3566
Run #2							

	Initial Volume	Final Volume
Run #1	930 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.31	0.11	0.0081	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.0090	ug/l	
120-12-7	Anthracene	ND	0.11	0.011	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.054	0.025	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.054	0.020	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.011	ug/l	
218-01-9	Chrysene	ND	0.11	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.016	ug/l	
206-44-0	Fluoranthene	0.078	0.11	0.0080	ug/l	J
86-73-7	Fluorene	0.28	0.11	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.022	ug/l	
90-12-0	1-Methylnaphthalene	13.6	2.2	0.013	ug/l	
91-57-6	2-Methylnaphthalene	18.9	2.2	0.012	ug/l	
85-01-8	Phenanthrene	0.81	0.054	0.012	ug/l	
129-00-0	Pyrene	0.14	0.11	0.0091	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	97%		26-121%
321-60-8	2-Fluorobiphenyl	33%		28-107%
1718-51-0	Terphenyl-d14	108%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P59-ROX-041615		
Lab Sample ID:	MC38075-4	**Date Sampled:**	04/16/15
Matrix:	AQ - Ground Water	**Date Received:**	04/17/15
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62916.D	1	04/21/15	NK	04/20/15	OP42754	GBB3423
Run #2							

	Initial Volume	Final Volume
Run #1	37.4 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0057	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0057	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	107%		60-140%
460-00-4	Bromofluorobenzene (S)	117%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-041615-HCL		
Lab Sample ID:	MC38075-5	**Date Sampled:**	04/16/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	04/17/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38531.D	1	04/29/15	KD	n/a	n/a	MSV1388
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-041615-HCL		
Lab Sample ID:	MC38075-5	**Date Sampled:**	04/16/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	04/17/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-041615-HCL		
Lab Sample ID:	MC38075-5	**Date Sampled:**	04/16/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	04/17/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

4.5

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		72-133%
2037-26-5	Toluene-D8	100%		85-114%
460-00-4	4-Bromofluorobenzene	102%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-041615-ST		
Lab Sample ID:	MC38075-6	**Date Sampled:**	04/16/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	04/17/15
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62917.D	1	04/21/15	NK	04/20/15	OP42754	GBB3423
Run #2							

	Initial Volume	Final Volume
Run #1	37.3 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0057	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0057	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	114%		60-140%
460-00-4	Bromofluorobenzene (S)	121%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

LAB (LOCA

☐ VENDO ( )
☐ CALSCIENCE ( )
☑ OTHER (Accutest Labs, 495 Technology Ctr W Marlborough, MA 01752 (508-481-6200))
☐ JD Vendor # ( )
☐ SPL ( )
Lab Vendor #

Shell Oil Products Chain Of Custody Record

ECOM

Please Check Appropriate Box:
☑ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SUNCH ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name: Bob Billman
PO #

INCIDENT # (ENV SERVICES): 0 7 2 1 6 6 4 0
SAP #: 3 4 0 0 0 1

☐ CHECK IF NO INCIDENT # APPLIES
DATE: 4-16-15
PAGE: 1 of 1

URS CORPORATION

1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300, ST. LOUIS, MO 63110

Elizabeth Kunkel, Bob Billman, Lindsay Rathnow

314-429-0100 | 314-429-0462 | bob.billman@aecom.com; elizabeth.kunkel@aecom.com; lindsay.rathnow@aecom.com

SITE ADDRESS: 900 South Central Ave; ROXANA | IL

Roxana Quarterly GW / 21563720.03002

DChase/Eschumacher

LAB USE ONLY: mc38075

TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (10 DAY) ☐ 5 DAYS ☐ 1 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:

DELIVERABLES: ☐ LEVEL 1 ☐ LEVEL 2 ☐ LEVEL 3 ☐ LEVEL 4 ☐ OTHER (GW/DFY) FDD

TEMPERATURE ON RECEIPT C° Cooler #1 Cooler #2 Cooler #3

SPECIAL INSTRUCTIONS OR NOTES:
* Please include "J" values on Reports.
* Please provide sample receipt upon login.

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ FDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE USED DISK

REQUESTED ANALYSIS

FIELD NOTES:
TEMPERATURE ON RECEIPT C°

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE NO.	HNO3	HCl	NONE	OTHER	NO. OF CONT.	VOC 8260C SL+TICS	VOC 8011 SL	SVOC 8270D SL+TICS	PAH 8270LL	Container PID Readings or Laboratory Notes
-1	P93B-ROX-041615	4/16-15	1225	water	2			2	2	6	X	X	X	X	0.0
-2	P93B-ROX-041615-DUP		1225		2			2	2	6	X	X	X	X	
-3	P93C-ROX-041615		1445		2			2	2	6	X	X	X	X	
-4	P59-ROX-041615		1535		2			2	2	6	X	X	X	X	
-5	TB-ROX-041615-HCL		0000		2					2	X				
-6	TB-ROX-041615-ST		0000						2	2		X			
															16B, 4F3

Relinquished by (Signature)	Received by (Signature)	Date	Time
[signature]	80662852 5073 FED EX	4-16-15	1800
Fx	[signature]	4-17-15	730

-0.6°C

MC38075: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC38075 Client: URS Project: 900 SOUTH CENTRAL AVE

Date / Time Received: 4/17/2015 9:30:00 AM Delivery Method: Airbill #'s:

Cooler Temps (Initial/Adjusted): #1: (0.6/0.6):

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Thermometer ID:	G1;		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☑		☐	☐
2. Trip Blank listed on COC:	☑		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories
V:(508) 481-6200

495 Technology Center West, Bldg One
F: (508) 481-7753

Marlborough, MA 01752
www.accutest.com

5.1

MC38075: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC38075

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC38075-1 Collected: 16-APR-15 12:25 By: DCES Received: 17-APR-15 By: P93B-ROX-041615						
MC38075-1	SW846 8011	21-APR-15 20:34	NK	20-APR-15	NE	V8011SL
MC38075-1	SW846 8270D	24-APR-15 10:58	KD	20-APR-15	FC	AB8270SL+
MC38075-1	SW846 8270D BY SIM	27-APR-15 10:56	MR	20-APR-15	FC	B8270SIMSL
MC38075-1	SW846 8260C	29-APR-15 10:48	KD			V8260SL+
MC38075-1	SW846 8260C	30-APR-15 14:32	KD			V8260SL+
MC38075-2 Collected: 16-APR-15 12:25 By: DCES Received: 17-APR-15 By: P93B-ROX-041615-DUP						
MC38075-2	SW846 8011	21-APR-15 21:03	NK	20-APR-15	NE	V8011SL
MC38075-2	SW846 8270D	24-APR-15 11:23	KD	20-APR-15	FC	AB8270SL+
MC38075-2	SW846 8270D BY SIM	27-APR-15 11:20	MR	20-APR-15	FC	B8270SIMSL
MC38075-2	SW846 8260C	29-APR-15 11:21	KD			V8260SL+
MC38075-2	SW846 8260C	30-APR-15 15:01	KD			V8260SL+
MC38075-3 Collected: 16-APR-15 14:45 By: DCES Received: 17-APR-15 By: P93C-ROX-041615						
MC38075-3	SW846 8011	21-APR-15 21:34	NK	20-APR-15	NE	V8011SL
MC38075-3	SW846 8270D	24-APR-15 11:48	KD	20-APR-15	FC	AB8270SL+
MC38075-3	SW846 8270D BY SIM	27-APR-15 11:45	MR	20-APR-15	FC	B8270SIMSL
MC38075-3	SW846 8260C	29-APR-15 11:49	KD			V8260SL+
MC38075-3	SW846 8260C	30-APR-15 15:29	KD			V8260SL+
MC38075-4 Collected: 16-APR-15 15:35 By: DCES Received: 17-APR-15 By: P59-ROX-041615						
MC38075-4	SW846 8011	21-APR-15 22:05	NK	20-APR-15	NE	V8011SL
MC38075-4	SW846 8270D	24-APR-15 12:12	KD	20-APR-15	FC	AB8270SL+
MC38075-4	SW846 8270D BY SIM	27-APR-15 12:09	MR	20-APR-15	FC	B8270SIMSL
MC38075-4	SW846 8260C	29-APR-15 12:18	KD			V8260SL+
MC38075-4	SW846 8260C	30-APR-15 15:57	KD			V8260SL+
MC38075-5 Collected: 16-APR-15 00:00 By: DCES Received: 17-APR-15 By: TB-ROX-041615-HCL						
MC38075-5	SW846 8260C	29-APR-15 09:50	KD			V8260SL+

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC38075

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC38075-6 Collected: 16-APR-15 00:00 By: DCES Received: 17-APR-15 By: TB-ROX-041615-ST						
MC38075-6	SW846 8011	21-APR-15 22:35	NK	20-APR-15	NE	V8011SL

Accutest Internal Chain of Custody

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Received: 04/17/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC38075-1.2	Walk In Ref #22	Forrest Thompson	04/20/15 15:30	Retrieve from Storage
MC38075-1.2	Forrest Thompson		05/03/15 16:58	Depleted
MC38075-1.3	VOC Ref #4	Krysten Dufort	04/29/15 08:52	Retrieve from Storage
MC38075-1.3	Krysten Dufort	GCMSV	04/29/15 08:52	Load on Instrument
MC38075-1.3	GCMSV	Krysten Dufort	04/29/15 12:13	Unload from Instrument
MC38075-1.3	Krysten Dufort	VOC Ref #4	04/29/15 12:13	Return to Storage
MC38075-1.4	VOC Ref #4	Krysten Dufort	04/30/15 12:32	Retrieve from Storage
MC38075-1.4	Krysten Dufort	GCMSV	04/30/15 14:00	Load on Instrument
MC38075-1.4	GCMSV	Krysten Dufort	05/01/15 12:45	Unload from Instrument
MC38075-1.4	Krysten Dufort	VOC Ref #4	05/01/15 12:45	Return to Storage
MC38075-1.6	VOC Ref #4	Nicole Estey	04/20/15 14:22	Retrieve from Storage
MC38075-1.6	Nicole Estey		04/20/15 21:01	Depleted
MC38075-2.1	Walk In Ref #22	Forrest Thompson	04/20/15 15:30	Retrieve from Storage
MC38075-2.1	Forrest Thompson		05/03/15 16:58	Depleted
MC38075-2.3	VOC Ref #4	Krysten Dufort	04/29/15 08:52	Retrieve from Storage
MC38075-2.3	Krysten Dufort	GCMSV	04/29/15 08:52	Load on Instrument
MC38075-2.3	GCMSV	Krysten Dufort	04/29/15 12:13	Unload from Instrument
MC38075-2.3	Krysten Dufort	VOC Ref #4	04/29/15 12:13	Return to Storage
MC38075-2.4	VOC Ref #4	Krysten Dufort	04/30/15 12:32	Retrieve from Storage
MC38075-2.4	Krysten Dufort	GCMSV	04/30/15 14:00	Load on Instrument
MC38075-2.4	GCMSV	Krysten Dufort	05/01/15 12:45	Unload from Instrument
MC38075-2.4	Krysten Dufort	VOC Ref #4	05/01/15 12:45	Return to Storage
MC38075-2.6	VOC Ref #4	Nicole Estey	04/20/15 14:22	Retrieve from Storage
MC38075-2.6	Nicole Estey		04/20/15 21:01	Depleted
MC38075-3.2	Walk In Ref #22	Forrest Thompson	04/20/15 15:30	Retrieve from Storage
MC38075-3.2	Forrest Thompson		05/03/15 16:58	Depleted
MC38075-3.3	VOC Ref #4	Krysten Dufort	04/30/15 12:32	Retrieve from Storage
MC38075-3.3	Krysten Dufort	GCMSV	04/30/15 14:00	Load on Instrument
MC38075-3.3	GCMSV	Krysten Dufort	05/01/15 12:45	Unload from Instrument
MC38075-3.3	Krysten Dufort	VOC Ref #4	05/01/15 12:45	Return to Storage
MC38075-3.4	VOC Ref #4	Krysten Dufort	04/29/15 08:52	Retrieve from Storage
MC38075-3.4	Krysten Dufort	GCMSV	04/29/15 08:52	Load on Instrument
MC38075-3.4	GCMSV	Krysten Dufort	04/29/15 12:13	Unload from Instrument
MC38075-3.4	Krysten Dufort	VOC Ref #4	04/29/15 12:13	Return to Storage

5.3

Accutest Internal Chain of Custody

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Received: 04/17/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC38075-3.5	VOC Ref #4	Nicole Estey	04/20/15 14:22	Retrieve from Storage
MC38075-3.5	Nicole Estey		04/20/15 21:01	Depleted
MC38075-4.2	Walk In Ref #22	Forrest Thompson	04/20/15 15:30	Retrieve from Storage
MC38075-4.2	Forrest Thompson		05/03/15 16:58	Depleted
MC38075-4.3	VOC Ref #4	Krysten Dufort	04/29/15 08:52	Retrieve from Storage
MC38075-4.3	Krysten Dufort	GCMSV	04/29/15 08:52	Load on Instrument
MC38075-4.3	GCMSV	Krysten Dufort	04/29/15 12:13	Unload from Instrument
MC38075-4.3	Krysten Dufort	VOC Ref #4	04/29/15 12:13	Return to Storage
MC38075-4.4	VOC Ref #4	Krysten Dufort	04/30/15 12:32	Retrieve from Storage
MC38075-4.4	Krysten Dufort	GCMSV	04/30/15 14:00	Load on Instrument
MC38075-4.4	GCMSV	Krysten Dufort	05/01/15 12:45	Unload from Instrument
MC38075-4.4	Krysten Dufort	VOC Ref #4	05/01/15 12:45	Return to Storage
MC38075-4.6	VOC Ref #4	Nicole Estey	04/20/15 14:22	Retrieve from Storage
MC38075-4.6	Nicole Estey		04/20/15 21:01	Depleted
MC38075-5.2	VOC Ref #4	Krysten Dufort	04/29/15 08:52	Retrieve from Storage
MC38075-5.2	Krysten Dufort	GCMSV	04/29/15 08:52	Load on Instrument
MC38075-5.2	GCMSV	Krysten Dufort	04/29/15 12:13	Unload from Instrument
MC38075-5.2	Krysten Dufort	VOC Ref #4	04/29/15 12:13	Return to Storage
MC38075-6.1	VOC Ref #4	Nicole Estey	04/20/15 14:22	Retrieve from Storage
MC38075-6.1	Nicole Estey		04/20/15 21:01	Depleted

5.3

New England ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1388-MB	V38516.D	1	04/29/15	KD	n/a	n/a	MSV1388

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC38075-1, MC38075-2, MC38075-3, MC38075-4, MC38075-5

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	

Method Blank Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1388-MB	V38516.D	1	04/29/15	KD	n/a	n/a	MSV1388

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC38075-1, MC38075-2, MC38075-3, MC38075-4, MC38075-5

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

Method Blank Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1388-MB	V38516.D	1	04/29/15	KD	n/a	n/a	MSV1388

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC38075-1, MC38075-2, MC38075-3, MC38075-4, MC38075-5

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	111%	72-133%
2037-26-5	Toluene-D8	101%	85-114%
460-00-4	4-Bromofluorobenzene	101%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

6.1.1

Method Blank Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1390-MB	V38590.D	1	04/30/15	KD	n/a	n/a	MSV1390

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC38075-1, MC38075-2, MC38075-3, MC38075-4

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.27	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	129%	72-133%
2037-26-5	Toluene-D8	104%	85-114%
460-00-4	4-Bromofluorobenzene	102%	70-134%

Blank Spike Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1388-BS	V38513.D	1	04/29/15	KD	n/a	n/a	MSV1388

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC38075-1, MC38075-2, MC38075-3, MC38075-4, MC38075-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	34.8	70	14-172
107-02-8	Acrolein	250	182	73	10-168
107-13-1	Acrylonitrile	50	52.6	105	41-158
71-43-2	Benzene	50	49.3	99	68-127
108-86-1	Bromobenzene	50	53.3	107	74-124
74-97-5	Bromochloromethane	50	50.3	101	68-135
75-27-4	Bromodichloromethane	50	56.4	113	72-144
75-25-2	Bromoform	50	46.2	92	59-147
74-83-9	Bromomethane	50	58.1	116	34-175
78-93-3	2-Butanone (MEK)	50	38.7	77	43-147
104-51-8	n-Butylbenzene	50	54.6	109	77-136
135-98-8	sec-Butylbenzene	50	55.8	112	75-134
98-06-6	tert-Butylbenzene	50	54.6	109	74-132
75-15-0	Carbon disulfide	50	50.0	100	34-171
56-23-5	Carbon tetrachloride	50	56.4	113	55-153
108-90-7	Chlorobenzene	50	52.2	104	71-123
75-00-3	Chloroethane	50	56.0	112	58-175
110-75-8	2-Chloroethyl vinyl ether	50	42.4	85	44-169
67-66-3	Chloroform	50	53.6	107	67-136
74-87-3	Chloromethane	50	53.4	107	25-182
95-49-8	o-Chlorotoluene	50	54.7	109	72-130
106-43-4	p-Chlorotoluene	50	54.2	108	73-127
124-48-1	Dibromochloromethane	50	48.2	96	73-139
95-50-1	1,2-Dichlorobenzene	50	50.5	101	77-125
541-73-1	1,3-Dichlorobenzene	50	52.3	105	77-124
106-46-7	1,4-Dichlorobenzene	50	50.5	101	73-128
75-71-8	Dichlorodifluoromethane	50	60.7	121	23-157
75-34-3	1,1-Dichloroethane	50	53.6	107	63-145
107-06-2	1,2-Dichloroethane	50	53.9	108	58-145
75-35-4	1,1-Dichloroethene	50	52.2	104	56-158
156-59-2	cis-1,2-Dichloroethene	50	50.5	101	67-133
156-60-5	trans-1,2-Dichloroethene	50	51.1	102	66-136
78-87-5	1,2-Dichloropropane	50	54.9	110	75-133
142-28-9	1,3-Dichloropropane	50	50.5	101	70-127
594-20-7	2,2-Dichloropropane	50	41.9	84	52-163
563-58-6	1,1-Dichloropropene	50	52.6	105	77-140

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1388-BS	V38513.D	1	04/29/15	KD	n/a	n/a	MSV1388

6.2.1

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC38075-1, MC38075-2, MC38075-3, MC38075-4, MC38075-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-01-5	cis-1,3-Dichloropropene	50	47.5	95	74-141
10061-02-6	trans-1,3-Dichloropropene	50	48.1	96	77-143
123-91-1	1,4-Dioxane	250	219	88	30-182
97-63-2	Ethyl methacrylate	50	49.0	98	64-131
100-41-4	Ethylbenzene	50	55.4	111	71-129
87-68-3	Hexachlorobutadiene	50	45.9	92	64-146
591-78-6	2-Hexanone	50	37.1	74	22-163
98-82-8	Isopropylbenzene	50	56.9	114	72-133
99-87-6	p-Isopropyltoluene	50	55.1	110	77-134
1634-04-4	Methyl Tert Butyl Ether	50	56.5	113	46-151
108-10-1	4-Methyl-2-pentanone (MIBK)	50	49.5	99	47-145
74-95-3	Methylene bromide	50	53.0	106	70-132
75-09-2	Methylene chloride	50	50.6	101	55-146
91-20-3	Naphthalene	50	39.3	79	39-176
103-65-1	n-Propylbenzene	50	57.6	115	74-134
100-42-5	Styrene	50	53.6	107	71-134
630-20-6	1,1,1,2-Tetrachloroethane	50	50.6	101	70-137
79-34-5	1,1,2,2-Tetrachloroethane	50	53.3	107	58-145
127-18-4	Tetrachloroethene	50	52.4	105	63-137
108-88-3	Toluene	50	52.2	104	75-126
87-61-6	1,2,3-Trichlorobenzene	50	42.8	86	27-181
120-82-1	1,2,4-Trichlorobenzene	50	44.5	89	40-176
71-55-6	1,1,1-Trichloroethane	50	52.2	104	68-144
79-00-5	1,1,2-Trichloroethane	50	53.8	108	72-133
79-01-6	Trichloroethene	50	51.1	102	73-126
75-69-4	Trichlorofluoromethane	50	63.3	127	43-152
96-18-4	1,2,3-Trichloropropane	50	46.9	94	58-141
95-63-6	1,2,4-Trimethylbenzene	50	56.2	112	76-129
108-67-8	1,3,5-Trimethylbenzene	50	56.6	113	71-127
108-05-4	Vinyl Acetate	50	54.4	109	10-170
75-01-4	Vinyl chloride	50	53.0	106	36-167
	m,p-Xylene	100	108	108	68-130
95-47-6	o-Xylene	50	54.5	109	69-126
1330-20-7	Xylene (total)	150	162	108	67-129

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1388-BS	V38513.D	1	04/29/15	KD	n/a	n/a	MSV1388

6.2.1

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC38075-1, MC38075-2, MC38075-3, MC38075-4, MC38075-5

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	106%	72-133%
2037-26-5	Toluene-D8	103%	85-114%
460-00-4	4-Bromofluorobenzene	103%	70-134%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1390-BS	V38584.D	1	04/30/15	KD	n/a	n/a	MSV1390

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC38075-1, MC38075-2, MC38075-3, MC38075-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	44.0	88	68-127

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	108%	72-133%
2037-26-5	Toluene-D8	106%	85-114%
460-00-4	4-Bromofluorobenzene	103%	70-134%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC38051-1MS	V38528.D	5	04/29/15	KD	n/a	n/a	MSV1388
MC38051-1MSD	V38529.D	5	04/29/15	KD	n/a	n/a	MSV1388
MC38051-1	V38519.D	1	04/29/15	KD	n/a	n/a	MSV1388

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC38075-1, MC38075-2, MC38075-3, MC38075-4, MC38075-5

CAS No.	Compound	MC38051-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250	161	64	250	156	62	3	10-135/30
107-02-8	Acrolein	ND		1250	993	79	1250	1010	81	2	10-175/30
107-13-1	Acrylonitrile	ND		250	228	91	250	233	93	2	37-163/30
71-43-2	Benzene	ND		250	222	89	250	226	90	2	61-138/30
108-86-1	Bromobenzene	ND		250	243	97	250	250	100	3	71-126/30
74-97-5	Bromochloromethane	ND		250	217	87	250	224	90	3	70-136/30
75-27-4	Bromodichloromethane	ND		250	256	102	250	259	104	1	73-146/30
75-25-2	Bromoform	ND		250	204	82	250	205	82	0	54-147/30
74-83-9	Bromomethane	ND		250	256	102	250	267	107	4	20-171/30
78-93-3	2-Butanone (MEK)	ND		250	176	70	250	177	71	1	33-127/30
104-51-8	n-Butylbenzene	ND		250	238	95	250	245	98	3	69-138/30
135-98-8	sec-Butylbenzene	ND		250	245	98	250	254	102	4	71-137/30
98-06-6	tert-Butylbenzene	ND		250	244	98	250	252	101	3	68-137/30
75-15-0	Carbon disulfide	ND		250	214	86	250	223	89	4	29-178/30
56-23-5	Carbon tetrachloride	ND		250	244	98	250	249	100	2	57-155/30
108-90-7	Chlorobenzene	ND		250	235	94	250	237	95	1	69-126/30
75-00-3	Chloroethane	ND		250	245	98	250	253	101	3	57-182/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	ND	0* [a]	250	ND	0* [a]	nc	10-200/30
67-66-3	Chloroform	ND		250	243	97	250	248	99	2	66-142/30
74-87-3	Chloromethane	ND		250	239	96	250	248	99	4	18-182/30
95-49-8	o-Chlorotoluene	ND		250	246	98	250	254	102	3	60-145/30
106-43-4	p-Chlorotoluene	ND		250	247	99	250	255	102	3	64-138/30
124-48-1	Dibromochloromethane	ND		250	219	88	250	216	86	1	71-138/30
95-50-1	1,2-Dichlorobenzene	ND		250	227	91	250	233	93	3	75-125/30
541-73-1	1,3-Dichlorobenzene	ND		250	234	94	250	240	96	3	74-125/30
106-46-7	1,4-Dichlorobenzene	ND		250	226	90	250	234	94	3	72-128/30
75-71-8	Dichlorodifluoromethane	1.2		250	268	107	250	270	108	1	23-159/30
75-34-3	1,1-Dichloroethane	ND		250	238	95	250	245	98	3	63-150/30
107-06-2	1,2-Dichloroethane	ND		250	247	99	250	250	100	1	57-150/30
75-35-4	1,1-Dichloroethene	ND		250	225	90	250	233	93	3	53-165/30
156-59-2	cis-1,2-Dichloroethene	ND		250	223	89	250	229	92	3	66-138/30
156-60-5	trans-1,2-Dichloroethene	ND		250	223	89	250	229	92	3	65-141/30
78-87-5	1,2-Dichloropropane	ND		250	247	99	250	250	100	1	76-136/30
142-28-9	1,3-Dichloropropane	ND		250	232	93	250	232	93	0	71-127/30
594-20-7	2,2-Dichloropropane	ND		250	146	58	250	148	59	1	33-175/30
563-58-6	1,1-Dichloropropene	ND		250	238	95	250	241	96	1	76-145/30

* = Outside of Control Limits.

6.3.1

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC38051-1MS	V38528.D	5	04/29/15	KD	n/a	n/a	MSV1388
MC38051-1MSD	V38529.D	5	04/29/15	KD	n/a	n/a	MSV1388
MC38051-1	V38519.D	1	04/29/15	KD	n/a	n/a	MSV1388

6.3.1

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC38075-1, MC38075-2, MC38075-3, MC38075-4, MC38075-5

CAS No.	Compound	MC38051-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		250	204	82	250	207	83	1	75-137/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	213	85	250	214	86	0	77-139/30
123-91-1	1,4-Dioxane	ND		1250	647	52	1250	613	49	5	29-167/30
97-63-2	Ethyl methacrylate	ND		250	231	92	250	230	92	0	60-135/30
100-41-4	Ethylbenzene	ND		250	247	99	250	249	100	1	61-137/30
87-68-3	Hexachlorobutadiene	ND		250	200	80	250	210	84	5	59-141/30
591-78-6	2-Hexanone	ND		250	173	69	250	167	67	4	12-141/30
98-82-8	Isopropylbenzene	ND		250	252	101	250	259	104	3	64-141/30
99-87-6	p-Isopropyltoluene	ND		250	239	96	250	247	99	3	73-135/30
1634-04-4	Methyl Tert Butyl Ether	7.2		250	256	100	250	259	101	1	34-160/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	227	91	250	219	88	4	47-143/30
74-95-3	Methylene bromide	ND		250	241	96	250	239	96	1	73-132/30
75-09-2	Methylene chloride	ND		250	215	86	250	224	90	4	52-154/30
91-20-3	Naphthalene	ND		250	182	73	250	180	72	1	21-185/30
103-65-1	n-Propylbenzene	ND		250	258	103	250	267	107	3	66-141/30
100-42-5	Styrene	ND		250	237	95	250	240	96	1	60-142/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	221	88	250	223	89	1	69-138/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	242	97	250	245	98	1	58-147/30
127-18-4	Tetrachloroethene	ND		250	232	93	250	232	93	0	60-140/30
108-88-3	Toluene	ND		250	240	96	250	241	96	0	74-131/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	187	75	250	195	78	4	12-184/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	197	79	250	203	81	3	30-175/30
71-55-6	1,1,1-Trichloroethane	ND		250	232	93	250	237	95	2	67-151/30
79-00-5	1,1,2-Trichloroethane	ND		250	248	99	250	248	99	0	73-134/30
79-01-6	Trichloroethene	ND		250	233	93	250	235	94	1	68-133/30
75-69-4	Trichlorofluoromethane	ND		250	282	113	250	291	116	3	40-159/30
96-18-4	1,2,3-Trichloropropane	ND		250	212	85	250	208	83	2	54-141/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	249	100	250	257	103	3	62-142/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	248	99	250	256	102	3	62-133/30
108-05-4	Vinyl Acetate	ND		250	239	96	250	242	97	1	10-169/30
75-01-4	Vinyl chloride	ND		250	229	92	250	242	97	6	29-176/30
	m,p-Xylene	ND		500	481	96	500	485	97	1	58-139/30
95-47-6	o-Xylene	ND		250	241	96	250	241	96	0	61-135/30
1330-20-7	Xylene (total)	ND		750	722	96	750	726	97	1	60-136/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC38051-1MS	V38528.D	5	04/29/15	KD	n/a	n/a	MSV1388
MC38051-1MSD	V38529.D	5	04/29/15	KD	n/a	n/a	MSV1388
MC38051-1	V38519.D	1	04/29/15	KD	n/a	n/a	MSV1388

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC38075-1, MC38075-2, MC38075-3, MC38075-4, MC38075-5

CAS No.	Surrogate Recoveries	MS	MSD	MC38051-1	Limits
1868-53-7	Dibromofluoromethane	103%	104%	115%	72-133%
2037-26-5	Toluene-D8	102%	101%	105%	85-114%
460-00-4	4-Bromofluorobenzene	105%	106%	104%	70-134%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC38219-4MS	V38607.D	5	04/30/15	KD	n/a	n/a	MSV1390
MC38219-4MSD	V38608.D	5	04/30/15	KD	n/a	n/a	MSV1390
MC38219-4	V38598.D	1	04/30/15	KD	n/a	n/a	MSV1390

6.3.2

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC38075-1, MC38075-2, MC38075-3, MC38075-4

CAS No.	Compound	MC38219-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	60.8		250	273	85	250	272	84	0	61-138/30

CAS No.	Surrogate Recoveries	MS	MSD	MC38219-4	Limits
1868-53-7	Dibromofluoromethane	108%	106%	114%	72-133%
2037-26-5	Toluene-D8	104%	104%	107%	85-114%
460-00-4	4-Bromofluorobenzene	104%	102%	99%	70-134%

* = Outside of Control Limits.

Volatile Internal Standard Area Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSV1388-CC1332	**Injection Date:**	04/29/15
Lab File ID:	V38513.D	**Injection Time:**	01:19
Instrument ID:	GCMSV	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	444335	6.57	698470	7.75	346350	11.09	371739	13.30	76446	3.53
Upper Limit [a]	888670	7.07	1396940	8.25	692700	11.59	743478	13.80	152892	4.03
Lower Limit [b]	222168	6.07	349235	7.25	173175	10.59	185870	12.80	38223	3.03

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV1388-BS	444335	6.57	698470	7.75	346350	11.09	371739	13.30	76446	3.53
MSV1388-MB	380777	6.57	629774	7.75	323419	11.09	341614	13.30	71243	3.53
ZZZZZZ	373859	6.57	622629	7.75	319537	11.09	328619	13.30	65275	3.53
ZZZZZZ	343177	6.57	588159	7.75	305786	11.09	311990	13.30	63210	3.52
MC38051-1	345016	6.57	586379	7.75	314811	11.09	316486	13.30	60200	3.52
ZZZZZZ	319564	6.57	547098	7.75	285314	11.09	292365	13.30	52045	3.52
ZZZZZZ	373478	6.57	578877	7.75	300013	11.09	331224	13.30	68806	3.53
ZZZZZZ	346806	6.57	581287	7.75	298206	11.09	311214	13.30	58200	3.53
ZZZZZZ	363926	6.57	584980	7.75	303772	11.09	336003	13.30	60158	3.53
ZZZZZZ	347922	6.57	587915	7.75	300491	11.09	329138	13.30	61051	3.53
ZZZZZZ	389066	6.57	601438	7.75	311921	11.09	337149	13.30	67268	3.53
ZZZZZZ	410248	6.57	659561	7.75	334021	11.09	357820	13.30	73357	3.53
ZZZZZZ	454536	6.57	728099	7.75	371745	11.09	403603	13.30	80944	3.54
MC38051-1MS	450447	6.56	711143	7.75	357430	11.09	378822	13.30	66656	3.52
MC38051-1MSD	454595	6.56	723607	7.75	364872	11.09	376938	13.30	66487	3.52
MC38075-5	384723	6.57	638432	7.75	324075	11.09	337177	13.30	60589	3.53
ZZZZZZ	376993	6.57	620926	7.75	320675	11.09	327098	13.30	62576	3.52
MC38075-1	541877	6.76	996544	7.83	441547	11.09	521918	13.30	123071	3.55
MC38075-2	520062	6.56	802268	7.75	387956	11.09	435813	13.30	93178	3.52
MC38075-3	503243	6.57	769492	7.75	366124	11.09	432882	13.30	93818	3.53
MC38075-4	527841	6.57	809368	7.75	382312	11.09	434729	13.30	106492	3.53

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

6.4.1

Volatile Internal Standard Area Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSV1390-CC1332	Injection Date:	04/30/15
Lab File ID:	V38584.D	Injection Time:	11:06
Instrument ID:	GCMSV	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	356426	6.55	554082	7.74	290273	11.08	316891	13.29	53927	3.51
Upper Limit [a]	712852	7.05	1108164	8.24	580546	11.58	633782	13.79	107854	4.01
Lower Limit [b]	178213	6.05	277041	7.24	145137	10.58	158446	12.79	26964	3.01

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV1390-BS	356426	6.55	554082	7.74	290273	11.08	316891	13.29	53927	3.51
MSV1390-MB	265160	6.55	466713	7.74	253686	11.08	257625	13.29	39303	3.51
MC38075-1	264101	6.56	468564	7.74	251467	11.08	261411	13.29	41373	3.52
MC38075-2	256966	6.55	465395	7.74	249295	11.08	254939	13.29	38957	3.51
MC38075-3	256288	6.56	464925	7.74	246791	11.08	254303	13.29	37289	3.52
MC38075-4	264891	6.56	456286	7.74	240140	11.08	259302	13.29	40052	3.52
ZZZZZZ	284511	6.56	454043	7.74	242929	11.08	270686	13.29	39315	3.52
ZZZZZZ	269876	6.55	464824	7.74	252569	11.08	257266	13.29	41861	3.51
ZZZZZZ	258381	6.55	447773	7.74	242043	11.08	250117	13.29	42666	3.51
MC38219-4	326522	6.55	508721	7.74	267014	11.08	300338	13.29	57042	3.52
ZZZZZZ	362731	6.55	568225	7.74	292491	11.08	319650	13.29	62833	3.52
ZZZZZZ	370166	6.55	580252	7.73	296534	11.08	318109	13.29	57496	3.51
ZZZZZZ	362736	6.55	582923	7.74	299540	11.08	336242	13.29	65028	3.52
ZZZZZZ	353374	6.55	581110	7.73	294943	11.08	313080	13.29	48334	3.51
ZZZZZZ	380270	6.55	563378	7.73	290942	11.08	306877	13.29	56006	3.51
ZZZZZZ	344099	6.54	547263	7.73	286025	11.08	295919	13.29	49201	3.50
ZZZZZZ	363642	6.54	567642	7.73	297684	11.08	318455	13.29	69311	3.50
MC38219-4MS	359719	6.54	569227	7.73	292415	11.07	314753	13.29	56247	3.50
MC38219-4MSD	376816	6.54	592254	7.73	300283	11.08	322585	13.29	58645	3.51

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

6.4.2

Volatile Surrogate Recovery Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC38075-1	V38591.D	128	102	99
MC38075-1	V38533.D	103	94	93
MC38075-2	V38592.D	131	103	100
MC38075-2	V38534.D	91	98	99
MC38075-3	V38593.D	130	102	100
MC38075-3	V38535.D	94	98	96
MC38075-4	V38594.D	124	103	101
MC38075-4	V38536.D	92	99	99
MC38075-5	V38531.D	111	100	102
MC38051-1MS	V38528.D	103	102	105
MC38051-1MSD	V38529.D	104	101	106
MC38219-4MS	V38607.D	108	104	104
MC38219-4MSD	V38608.D	106	104	102
MSV1388-BS	V38513.D	106	103	103
MSV1388-MB	V38516.D	111	101	101
MSV1390-BS	V38584.D	108	106	103
MSV1390-MB	V38590.D	129	104	102

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	72-133%
S2 = Toluene-D8	85-114%
S3 = 4-Bromofluorobenzene	70-134%

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42752-MB	W21633.D	1	04/24/15	KD	04/20/15	OP42752	MSW925

The QC reported here applies to the following samples: **Method:** SW846 8270D

MC38075-1, MC38075-2, MC38075-3, MC38075-4

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.5	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.29	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.51	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.47	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.34	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.59	ug/l	
95-48-7	2-Methylphenol	ND	10	0.30	ug/l	
	3&4-Methylphenol	ND	10	0.44	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.47	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.35	ug/l	
108-95-2	Phenol	ND	5.0	0.32	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.45	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.45	ug/l	
62-53-3	Aniline	ND	10	0.46	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.25	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.24	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.32	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.34	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.49	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.42	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.42	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.26	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.37	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.38	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.53	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.27	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	0.29	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.27	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.24	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.32	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.24	ug/l	

7.1.1

Method Blank Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42752-MB	W21633.D	1	04/24/15	KD	04/20/15	OP42752	MSW925

The QC reported here applies to the following samples: **Method:** SW846 8270D

MC38075-1, MC38075-2, MC38075-3, MC38075-4

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.28	ug/l	
78-59-1	Isophorone	ND	5.0	0.47	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.36	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.40	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.51	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.48	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.25	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.25	ug/l	
110-86-1	Pyridine	ND	10	0.36	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	48%	10-79%
4165-62-2	Phenol-d5	35%	10-72%
118-79-6	2,4,6-Tribromophenol	95%	35-138%
4165-60-0	Nitrobenzene-d5	82%	30-116%
321-60-8	2-Fluorobiphenyl	79%	35-107%
1718-51-0	Terphenyl-d14	100%	43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

7.1.1

Method Blank Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42753-MB	I95319.D	1	04/27/15	MR	04/20/15	OP42753	MSI3566

The QC reported here applies to the following samples: **Method:** SW846 8270D BY SIM

MC38075-1, MC38075-2, MC38075-3, MC38075-4

7.1.2

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.0075	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.0084	ug/l	
120-12-7	Anthracene	ND	0.10	0.0098	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.015	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.019	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.013	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.0074	ug/l	
86-73-7	Fluorene	ND	0.10	0.015	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.020	ug/l	
90-12-0	1-Methylnaphthalene	0.067	2.0	0.012	ug/l	J
91-57-6	2-Methylnaphthalene	0.089	2.0	0.011	ug/l	J
85-01-8	Phenanthrene	ND	0.050	0.011	ug/l	
129-00-0	Pyrene	ND	0.10	0.0085	ug/l	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	84%	26-121%
321-60-8	2-Fluorobiphenyl	73%	28-107%
1718-51-0	Terphenyl-d14	104%	29-129%

Blank Spike Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42752-BS	W21634.D	1	04/24/15	KD	04/20/15	OP42752	MSW925

The QC reported here applies to the following samples: **Method:** SW846 8270D

MC38075-1, MC38075-2, MC38075-3, MC38075-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	50	13.6	27	10-73
95-57-8	2-Chlorophenol	50	43.1	86	47-106
59-50-7	4-Chloro-3-methyl phenol	50	47.2	94	50-111
120-83-2	2,4-Dichlorophenol	50	47.6	95	53-114
105-67-9	2,4-Dimethylphenol	50	43.6	87	23-110
51-28-5	2,4-Dinitrophenol	50	45.7	91	10-156
534-52-1	4,6-Dinitro-o-cresol	50	55.0	110	17-159
95-48-7	2-Methylphenol	50	37.8	76	40-92
	3&4-Methylphenol	100	75.1	75	38-86
88-75-5	2-Nitrophenol	50	50.0	100	53-115
100-02-7	4-Nitrophenol	50	21.1	42	10-83
87-86-5	Pentachlorophenol	50	42.7	85	41-122
108-95-2	Phenol	50	20.8	42	15-55
95-95-4	2,4,5-Trichlorophenol	50	50.6	101	52-120
88-06-2	2,4,6-Trichlorophenol	50	51.1	102	53-119
62-53-3	Aniline	50	33.3	67	26-87
101-55-3	4-Bromophenyl phenyl ether	50	51.4	103	65-127
85-68-7	Butyl benzyl phthalate	50	49.9	100	68-128
100-51-6	Benzyl Alcohol	50	41.2	82	13-108
91-58-7	2-Chloronaphthalene	50	49.6	99	58-120
106-47-8	4-Chloroaniline	50	44.2	88	48-106
111-91-1	bis(2-Chloroethoxy)methane	50	46.4	93	42-118
111-44-4	bis(2-Chloroethyl)ether	50	43.1	86	35-123
108-60-1	bis(2-Chloroisopropyl)ether	50	47.2	94	37-160
7005-72-3	4-Chlorophenyl phenyl ether	50	50.4	101	57-121
122-66-7	1,2-Diphenylhydrazine	50	49.1	98	54-128
121-14-2	2,4-Dinitrotoluene	50	55.0	110	64-127
606-20-2	2,6-Dinitrotoluene	50	51.5	103	55-135
91-94-1	3,3'-Dichlorobenzidine	50	55.9	112	49-141
132-64-9	Dibenzofuran	50	49.1	98	60-107
84-74-2	Di-n-butyl phthalate	50	48.3	97	68-117
117-84-0	Di-n-octyl phthalate	50	50.5	101	60-139
84-66-2	Diethyl phthalate	50	50.5	101	51-127
131-11-3	Dimethyl phthalate	50	50.6	101	22-147
117-81-7	bis(2-Ethylhexyl)phthalate	50	51.5	103	69-133
118-74-1	Hexachlorobenzene	50	52.3	105	62-131

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42752-BS	W21634.D	1	04/24/15	KD	04/20/15	OP42752	MSW925

The QC reported here applies to the following samples: **Method:** SW846 8270D

MC38075-1, MC38075-2, MC38075-3, MC38075-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	17.4	35	10-74
67-72-1	Hexachloroethane	50	37.2	74	15-104
78-59-1	Isophorone	50	40.7	81	44-110
88-74-4	2-Nitroaniline	50	53.6	107	63-123
99-09-2	3-Nitroaniline	50	46.0	92	63-112
100-01-6	4-Nitroaniline	50	51.8	104	58-114
98-95-3	Nitrobenzene	50	44.8	90	37-130
62-75-9	n-Nitrosodimethylamine	50	33.6	67	18-80
621-64-7	N-Nitroso-di-n-propylamine	50	43.4	87	44-128
86-30-6	N-Nitrosodiphenylamine	50	44.6	89	62-107
110-86-1	Pyridine	50	27.7	55	10-77

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	56%	10-79%
4165-62-2	Phenol-d5	39%	10-72%
118-79-6	2,4,6-Tribromophenol	104%	35-138%
4165-60-0	Nitrobenzene-d5	91%	30-116%
321-60-8	2-Fluorobiphenyl	86%	35-107%
1718-51-0	Terphenyl-d14	102%	43-135%

* = Outside of Control Limits.

7.2.1

Blank Spike Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42753-BS	I95320.D	1	04/27/15	MR	04/20/15	OP42753	MSI3566

The QC reported here applies to the following samples: **Method:** SW846 8270D BY SIM

MC38075-1, MC38075-2, MC38075-3, MC38075-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	43.8	88	45-116
208-96-8	Acenaphthylene	50	41.0	82	34-110
120-12-7	Anthracene	50	45.7	91	50-117
56-55-3	Benzo(a)anthracene	50	53.7	107	55-139
50-32-8	Benzo(a)pyrene	50	55.5	111	48-131
205-99-2	Benzo(b)fluoranthene	50	53.3	107	49-141
191-24-2	Benzo(g,h,i)perylene	50	54.9	110	60-130
207-08-9	Benzo(k)fluoranthene	50	46.7	93	49-133
218-01-9	Chrysene	50	49.2	98	52-128
53-70-3	Dibenzo(a,h)anthracene	50	54.4	109	60-136
206-44-0	Fluoranthene	50	47.9	96	46-132
86-73-7	Fluorene	50	45.3	91	53-120
193-39-5	Indeno(1,2,3-cd)pyrene	50	55.9	112	57-134
90-12-0	1-Methylnaphthalene	50	42.3	85	41-105
91-57-6	2-Methylnaphthalene	50	42.8	86	36-111
85-01-8	Phenanthrene	50	44.2	88	50-120
129-00-0	Pyrene	50	47.6	95	48-127

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	94%	26-121%
321-60-8	2-Fluorobiphenyl	80%	28-107%
1718-51-0	Terphenyl-d14	105%	29-129%

* = Outside of Control Limits.

7.2.2

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42752-MS	W21635.D	1	04/24/15	KD	04/20/15	OP42752	MSW925
OP42752-MSD	W21636.D	1	04/24/15	KD	04/20/15	OP42752	MSW925
MC38000-17	W21637.D	1	04/24/15	KD	04/20/15	OP42752	MSW925

The QC reported here applies to the following samples: **Method:** SW846 8270D

MC38075-1, MC38075-2, MC38075-3, MC38075-4

CAS No.	Compound	MC38000-17 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		50	13.1	26	50	13.7	27	4	10-76/20
95-57-8	2-Chlorophenol	ND		50	42.6	85	50	43.3	87	2	37-112/20
59-50-7	4-Chloro-3-methyl phenol	ND		50	46.6	93	50	47.7	95	2	43-115/20
120-83-2	2,4-Dichlorophenol	ND		50	46.9	94	50	48.4	97	3	47-119/20
105-67-9	2,4-Dimethylphenol	ND		50	43.0	86	50	44.5	89	3	15-118/20
51-28-5	2,4-Dinitrophenol	ND		50	46.5	93	50	49.2	98	6	10-165/20
534-52-1	4,6-Dinitro-o-cresol	ND		50	54.9	110	50	55.4	111	1	13-165/20
95-48-7	2-Methylphenol	ND		50	37.2	74	50	37.0	74	1	30-99/20
	3&4-Methylphenol	ND		100	73.0	73	100	73.7	74	1	32-89/20
88-75-5	2-Nitrophenol	ND		50	50.2	100	50	50.5	101	1	44-120/20
100-02-7	4-Nitrophenol	ND		50	20.2	40	50	21.0	42	4	10-93/20
87-86-5	Pentachlorophenol	ND		50	42.3	85	50	43.6	87	3	33-131/20
108-95-2	Phenol	ND		50	20.5	41	50	20.8	42	1	15-53/20
95-95-4	2,4,5-Trichlorophenol	ND		50	51.1	102	50	51.9	104	2	45-126/20
88-06-2	2,4,6-Trichlorophenol	ND		50	51.5	103	50	52.3	105	2	45-124/20
62-53-3	Aniline	ND		50	32.9	66	50	33.4	67	2	18-91/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	51.4	103	50	52.0	104	1	57-131/20
85-68-7	Butyl benzyl phthalate	ND		50	49.4	99	50	50.0	100	1	58-135/20
100-51-6	Benzyl Alcohol	ND		50	40.2	80	50	41.0	82	2	10-109/20
91-58-7	2-Chloronaphthalene	ND		50	49.7	99	50	50.7	101	2	51-123/20
106-47-8	4-Chloroaniline	ND		50	43.7	87	50	43.9	88	0	39-109/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	45.5	91	50	46.5	93	2	36-120/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	43.1	86	50	43.6	87	1	30-124/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	46.2	92	50	46.1	92	0	25-171/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	51.0	102	50	51.6	103	1	51-122/20
122-66-7	1,2-Diphenylhydrazine	ND		50	48.9	98	50	50.0	100	2	47-130/20
121-14-2	2,4-Dinitrotoluene	ND		50	54.5	109	50	55.2	110	1	57-131/20
606-20-2	2,6-Dinitrotoluene	ND		50	51.9	104	50	51.5	103	1	52-135/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	57.8	116	50	56.8	114	2	25-157/20
132-64-9	Dibenzofuran	ND		50	48.7	97	50	49.7	99	2	54-110/20
84-74-2	Di-n-butyl phthalate	ND		50	48.1	96	50	48.6	97	1	60-122/20
117-84-0	Di-n-octyl phthalate	ND		50	50.4	101	50	50.5	101	0	54-142/20
84-66-2	Diethyl phthalate	ND		50	50.1	100	50	51.3	103	2	40-132/20
131-11-3	Dimethyl phthalate	ND		50	50.1	100	50	51.1	102	2	13-149/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		50	51.4	103	50	52.1	104	1	59-139/20
118-74-1	Hexachlorobenzene	ND		50	52.3	105	50	52.9	106	1	56-135/20

* = Outside of Control Limits.

7.3.1

7

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42752-MS	W21635.D	1	04/24/15	KD	04/20/15	OP42752	MSW925
OP42752-MSD	W21636.D	1	04/24/15	KD	04/20/15	OP42752	MSW925
MC38000-17	W21637.D	1	04/24/15	KD	04/20/15	OP42752	MSW925

The QC reported here applies to the following samples: **Method:** SW846 8270D

MC38075-1, MC38075-2, MC38075-3, MC38075-4

7.3.1

7

CAS No.	Compound	MC38000-17 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		50	18.1	36	50	18.6	37	3	10-73/20
67-72-1	Hexachloroethane	ND		50	36.2	72	50	36.0	72	1	13-103/20
78-59-1	Isophorone	ND		50	39.8	80	50	40.6	81	2	41-110/20
88-74-4	2-Nitroaniline	ND		50	53.8	108	50	54.7	109	2	57-126/20
99-09-2	3-Nitroaniline	ND		50	46.6	93	50	45.9	92	2	53-118/20
100-01-6	4-Nitroaniline	ND		50	51.2	102	50	50.8	102	1	50-119/20
98-95-3	Nitrobenzene	ND		50	44.3	89	50	44.6	89	1	35-127/20
62-75-9	n-Nitrosodimethylamine	ND		50	32.8	66	50	33.9	68	3	11-82/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	43.5	87	50	44.3	89	2	39-129/20
86-30-6	N-Nitrosodiphenylamine	ND		50	44.8	90	50	45.3	91	1	55-112/20
110-86-1	Pyridine	ND		50	26.6	53	50	27.3	55	3	15-71/20

CAS No.	Surrogate Recoveries	MS	MSD	MC38000-17	Limits
367-12-4	2-Fluorophenol	54%	55%	53%	10-79%
4165-62-2	Phenol-d5	38%	38%	37%	10-72%
118-79-6	2,4,6-Tribromophenol	104%	106%	97%	35-138%
4165-60-0	Nitrobenzene-d5	90%	91%	89%	30-116%
321-60-8	2-Fluorobiphenyl	84%	83%	81%	35-107%
1718-51-0	Terphenyl-d14	101%	103%	102%	43-135%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42753-MS	I95321.D	1	04/27/15	MR	04/20/15	OP42753	MSI3566
OP42753-MSD	I95322.D	1	04/27/15	MR	04/20/15	OP42753	MSI3566
MC38000-18	I95323.D	1	04/27/15	MR	04/20/15	OP42753	MSI3566

The QC reported here applies to the following samples: **Method:** SW846 8270D BY SIM

MC38075-1, MC38075-2, MC38075-3, MC38075-4

7.3.2

7

CAS No.	Compound	MC38000-18 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	43.8	88	50	44.6	89	2	36-124/20
208-96-8	Acenaphthylene	ND		50	41.4	83	50	42.0	84	1	25-116/20
120-12-7	Anthracene	ND		50	45.1	90	50	45.6	91	1	42-122/20
56-55-3	Benzo(a)anthracene	ND		50	53.3	107	50	54.4	109	2	45-145/20
50-32-8	Benzo(a)pyrene	ND		50	55.4	111	50	55.5	111	0	40-136/20
205-99-2	Benzo(b)fluoranthene	ND		50	50.9	102	50	52.4	105	3	41-148/20
191-24-2	Benzo(g,h,i)perylene	ND		50	54.0	108	50	55.6	111	3	48-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	49.3	99	50	48.0	96	3	45-131/20
218-01-9	Chrysene	ND		50	48.4	97	50	49.5	99	2	41-135/20
53-70-3	Dibenzo(a,h)anthracene	ND		50	53.4	107	50	54.8	110	3	49-144/20
206-44-0	Fluoranthene	ND		50	48.5	97	50	49.6	99	2	38-136/20
86-73-7	Fluorene	ND		50	45.3	91	50	45.5	91	0	43-127/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	54.8	110	50	56.0	112	2	45-142/20
90-12-0	1-Methylnaphthalene	0.036	JB	50	42.0	84	50	42.7	85	2	29-116/20
91-57-6	2-Methylnaphthalene	0.033	JB	50	42.9	86	50	43.8	88	2	27-117/20
85-01-8	Phenanthrene	ND		50	44.0	88	50	45.4	91	3	41-126/20
129-00-0	Pyrene	ND		50	47.5	95	50	49.2	98	4	41-131/20

CAS No.	Surrogate Recoveries	MS	MSD	MC38000-18	Limits
4165-60-0	Nitrobenzene-d5	92%	93%	91%	26-121%
321-60-8	2-Fluorobiphenyl	78%	78%	75%	28-107%
1718-51-0	Terphenyl-d14	105%	107%	105%	29-129%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3566-CC3561	**Injection Date:**	04/27/15
Lab File ID:	I95318.D	**Injection Time:**	08:12
Instrument ID:	GCMSI	**Method:**	SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	231243	3.56	480037	4.60	271091	6.12	481464	7.42	346912	10.20	901063	11.62
Upper Limit [a]	462486	4.06	960074	5.10	542182	6.62	962928	7.92	693824	10.70	1802126	12.12
Lower Limit [b]	115622	3.06	240019	4.10	135546	5.62	240732	6.92	173456	9.70	450532	11.12

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP42753-MB	301554	3.57	622942	4.60	356727	6.12	614127	7.43	449985	10.20	1159376	11.63
OP42753-BS	295592	3.57	632966	4.61	357523	6.12	649950	7.44	476524	10.21	1210035	11.64
OP42753-MS	284350	3.57	599903	4.61	335003	6.12	606070	7.43	437021	10.21	1084148	11.63
OP42753-MSD	262036	3.57	555449	4.61	312634	6.12	557155	7.43	397907	10.21	999965	11.63
MC38000-18	279910	3.56	582082	4.60	336474	6.12	580422	7.43	426178	10.20	1086012	11.63
MC38075-1	227765	3.57	477852	4.60	276207	6.12	495171	7.43	361429	10.20	921717	11.63
MC38075-2	235668	3.57	491965	4.60	284639	6.12	506823	7.43	374009	10.20	942682	11.63
MC38075-3	254502	3.57	538729	4.60	314839	6.12	553671	7.43	421080	10.20	1048631	11.63
MC38075-4	246830	3.57	512162	4.61	635740[c]	6.14	537319	7.46	410921	10.21	1032702	11.64
ZZZZZZ	254333	3.57	526384	4.60	301895	6.12	528594	7.43	383723	10.21	937458	11.64
ZZZZZZ	240148	3.57	512649	4.60	300504	6.12	529551	7.43	422651	10.20	1068299	11.63
ZZZZZZ	259618	3.57	550316	4.60	321460	6.12	560970	7.43	424057	10.20	1050550	11.63
ZZZZZZ	254602	3.57	539692	4.60	310031	6.12	546303	7.43	397690	10.20	977095	11.63
ZZZZZZ	258765	3.57	545408	4.60	315930	6.12	555006	7.43	401839	10.20	989621	11.63
ZZZZZZ	254296	3.57	536609	4.60	310866	6.12	548485	7.43	394279	10.20	970738	11.63
ZZZZZZ	264961	3.57	562041	4.60	320291	6.12	566777	7.43	409296	10.20	999688	11.63
ZZZZZZ	258639	3.57	540253	4.60	309459	6.12	535399	7.43	388944	10.20	953154	11.63
ZZZZZZ	261703	3.57	544957	4.60	314860	6.12	551696	7.43	400102	10.20	986406	11.63
ZZZZZZ	233784	3.56	491194	4.60	280229	6.12	490336	7.43	338969	10.20	822203	11.62
ZZZZZZ	241388	3.57	504777	4.60	288531	6.12	504112	7.43	360978	10.20	880256	11.62

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Outside control limits due to possible matrix interference.Sample result confirmed by reanalysis.

7.4.1

7

Semivolatile Internal Standard Area Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW925-CC902	**Injection Date:**	04/24/15
Lab File ID:	W21632.D	**Injection Time:**	08:30
Instrument ID:	GCMSW	**Method:**	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	299518	5.11	1114413	6.21	643029	7.76	1134565	9.05	1178319	11.59	1151303	13.28
Upper Limit [a]	599036	5.61	2228826	6.71	1286058	8.26	2269130	9.55	2356638	12.09	2302606	13.78
Lower Limit [b]	149759	4.61	557207	5.71	321515	7.26	567283	8.55	589160	11.09	575652	12.78
Lab Sample ID	**IS 1 AREA**	**RT**	**IS 2 AREA**	**RT**	**IS 3 AREA**	**RT**	**IS 4 AREA**	**RT**	**IS 5 AREA**	**RT**	**IS 6 AREA**	**RT**
OP42752-MB	317065	5.10	1188135	6.21	707648	7.76	1230349	9.04	1266153	11.59	1278645	13.27
OP42752-BS	302747	5.10	1131377	6.21	661456	7.76	1154786	9.05	1207833	11.59	1199706	13.28
OP42752-MS	303127	5.11	1137437	6.21	654889	7.76	1139950	9.05	1190544	11.59	1182935	13.27
OP42752-MSD	312104	5.10	1162504	6.21	677697	7.76	1180515	9.05	1229947	11.59	1220663	13.28
MC38000-17	307510	5.10	1148687	6.21	683385	7.76	1183755	9.04	1230256	11.59	1228170	13.27
MC38075-1	290513	5.10	1053682	6.21	643962	7.76	1102445	9.04	1141877	11.59	1140668	13.27
MC38075-2	294339	5.10	1084646	6.21	651792	7.76	1112627	9.04	1161740	11.59	1164397	13.27
MC38075-3	298015	5.10	1109829	6.21	655565	7.76	1124124	9.04	1181579	11.59	1180955	13.27
MC38075-4	300800	5.11	1092965	6.22	709903	7.77	1052590	9.06	1132553	11.59	1138522	13.28
ZZZZZZ	297525	5.10	1104186	6.21	663559	7.76	1115639	9.05	1133570	11.59	1108796	13.28
ZZZZZZ	321849	5.10	1175777	6.21	706663	7.76	1181533	9.05	1194915	11.59	1134682	13.27

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.4.2

Semivolatile Surrogate Recovery Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8270D **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC38075-1	W21638.D	53	38	100	79	72	96
MC38075-2	W21639.D	42	28	100	73	71	97
MC38075-3	W21640.D	53	37	105	90	85	100
MC38075-4	W21641.D	52	40	116	93	72	101
OP42752-BS	W21634.D	56	39	104	91	86	102
OP42752-MB	W21633.D	48	35	95	82	79	100
OP42752-MS	W21635.D	54	38	104	90	84	101
OP42752-MSD	W21636.D	55	38	106	91	83	103

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	10-79%
S2 = Phenol-d5	10-72%
S3 = 2,4,6-Tribromophenol	35-138%
S4 = Nitrobenzene-d5	30-116%
S5 = 2-Fluorobiphenyl	35-107%
S6 = Terphenyl-d14	43-135%

7.5.1

7

Semivolatile Surrogate Recovery Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8270D BY SIM **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC38075-1	I95324.D	78	68	101
MC38075-2	I95325.D	73	66	102
MC38075-3	I95326.D	90	77	107
MC38075-4	I95327.D	97	33	108
OP42753-BS	I95320.D	94	80	105
OP42753-MB	I95319.D	84	73	104
OP42753-MS	I95321.D	92	78	105
OP42753-MSD	I95322.D	93	78	107

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	26-121%
S2 = 2-Fluorobiphenyl	28-107%
S3 = Terphenyl-d14	29-129%

7.5.2

7

New England ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

8

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries

Method Blank Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42754-MB	BB62908.D	1	04/21/15	NK	04/20/15	OP42754	GBB3423

The QC reported here applies to the following samples: **Method:** SW846 8011

MC38075-1, MC38075-2, MC38075-3, MC38075-4, MC38075-6

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.0061	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.0061	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	Bromofluorobenzene (S)	122%	60-140%
460-00-4	Bromofluorobenzene (S)	117%	60-140%

8.1.1

Blank Spike Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42754-BS	BB62909.D	1	04/21/15	NK	04/20/15	OP42754	GBB3423

The QC reported here applies to the following samples: **Method:** SW846 8011

MC38075-1, MC38075-2, MC38075-3, MC38075-4, MC38075-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.074	104	45-149
106-93-4	1,2-Dibromoethane	0.071	0.069	97	51-149

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	98%	60-140%
460-00-4	Bromofluorobenzene (S)	92%	60-140%

8.2.1

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42754-MS	BB62910.D	1	04/21/15	NK	04/20/15	OP42754	GBB3423
OP42754-MSD	BB62911.D	1	04/21/15	NK	04/20/15	OP42754	GBB3423
MC38000-19	BB62912.D	1	04/21/15	NK	04/20/15	OP42754	GBB3423

The QC reported here applies to the following samples: **Method:** SW846 8011

MC38075-1, MC38075-2, MC38075-3, MC38075-4, MC38075-6

CAS No.	Compound	MC38000-19 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	ND		0.071	0.083	117	0.071	0.081	114	2	31-169/30
106-93-4	1,2-Dibromoethane	ND		0.071	0.077	108	0.071	0.073	103	5	34-175/30

CAS No.	Surrogate Recoveries	MS	MSD	MC38000-19	Limits
460-00-4	Bromofluorobenzene (S)	117%	121%	130%	60-140%
460-00-4	Bromofluorobenzene (S)	116%	117%	123%	60-140%

8.3.1

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8011 **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
MC38075-1	BB62913.D	109	121
MC38075-2	BB62914.D	113	123
MC38075-3	BB62915.D	113	116
MC38075-4	BB62916.D	107	117
MC38075-6	BB62917.D	114	121
OP42754-BS	BB62909.D	98	92
OP42754-MB	BB62908.D	122	117
OP42754-MS	BB62910.D	117	116
OP42754-MSD	BB62911.D	121	117

Surrogate Compounds	Recovery Limits
S1 = Bromofluorobenzene (S)	60-140%

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

8.4.1

GC Surrogate Retention Time Summary

Job Number: MC38075
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBB3423-CC3423	**Injection Date:**	04/21/15
Lab File ID:	BB62907A.D	**Injection Time:**	17:38
Instrument ID:	GCBB	**Method:**	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	6.88	7.24

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP42754-MB	BB62908.D	04/21/15	18:08	6.87	7.23
OP42754-BS	BB62909.D	04/21/15	18:37	6.88	7.24
OP42754-MS	BB62910.D	04/21/15	19:07	6.87	7.23
OP42754-MSD	BB62911.D	04/21/15	19:36	6.87	7.23
MC38000-19	BB62912.D	04/21/15	20:05	6.87	7.24
MC38075-1	BB62913.D	04/21/15	20:34	6.87	7.23
MC38075-2	BB62914.D	04/21/15	21:03	6.87	7.23
MC38075-3	BB62915.D	04/21/15	21:34	6.87	7.23
MC38075-4	BB62916.D	04/21/15	22:05	6.87	7.23
MC38075-6	BB62917.D	04/21/15	22:35	6.87	7.23

Surrogate Compounds

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.5.1

Roxana Groundwater Quarterly – 2nd Quarter 2015 Data Review

Laboratory SDG: MC38105

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 5/7/2015

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2014

Sample Identification	Sample Identification
P114-ROX-041715	P93A-ROX-041715
TB-ROX-041715-HCL	TB-ROX-041715-ST

1.0 Data Package Completeness

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

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

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

Yes, the laboratory case narrative indicated PAHs were detected in the method blank. The surrogate recovery for 4-bromofluorobenzene was outside evaluation criteria in run #2 of sample P114-ROX-041715. Sample P93A-ROX-041715 was diluted due to a high level of benzene. These issues are addressed further in the appropriate sections below. Additionally, the initial calibration verification for 2-hexanone and hexachlorocyclopentadiene exceeded 30 percent difference (%D).

The cooler receipt form indicated that one of one cooler was received by the laboratory at a temperature of 1.6°C, which is outside the 4ºC ± 2ºC criteria. Samples were received in good condition; therefore, no qualification of data was required.

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
OP42753-MB	PAHs	1-Methylnaphthalene	0.067 µg/L
OP42753-MB	PAHs	2-Methylnaphthalene	0.089 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
P114-ROX-041715	PAHs	1-Methylnaphthalene	-	**U**
P114-ROX-041715	PAHs	2-Methylnaphthalene	-	**U**

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

Yes

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
P114-ROX-041715-Run#2	VOCs	4-Bromofluorobenzene	**210**	70-134

Analytical data reported as non-detect and associated with surrogate recoveries above evaluation criteria, indicating a possible high bias, did 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 P114-ROX-041715 was spiked and analyzed for benzene.

Were MS/MSD recoveries within evaluation criteria?

Yes

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.

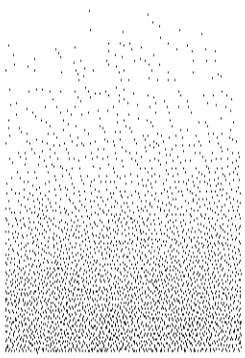
12.0 Additional Qualifications

Were additional qualifications applied?

No

New England ACCUTEST LABORATORIES

05/07/15



Technical Report for

Shell Oil

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana,

Accutest Job Number: MC38105

Sampling Date: 04/17/15

Report to:

AECOM, INC.

Melissa.mansker@urs.com

ATTN: Melissa Mansker

Total number of pages in report: 75

Reviewed 5/7/15

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Reza Tand
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

Sections: 1 2 3 4 5 6 7 8

Table of Contents

Section 1: Sample Summary **3**
Section 2: Case Narrative/Conformance Summary **4**
Section 3: Summary of Hits 6
Section 4: Sample Results **8**
4.1: MC38105-1: P114-ROX-041715 9
4.2: MC38105-2: P93A-ROX-041715 16
4.3: MC38105-3: TB-ROX-041715-HCL 23
4.4: MC38105-4: TB-ROX-041715-ST 26
Section 5: Misc. Forms 27
5.1: Chain of Custody 28
5.2: Sample Tracking Chronicle 30
5.3: Internal Chain of Custody 31
Section 6: GC/MS Volatiles - QC Data Summaries **32**
6.1: Method Blank Summary 33
6.2: Blank Spike Summary 40
6.3: Matrix Spike/Matrix Spike Duplicate Summary 47
6.4: Internal Standard Area Summaries 51
6.5: Surrogate Recovery Summaries 54
Section 7: GC/MS Semi-volatiles - QC Data Summaries **55**
7.1: Method Blank Summary 56
7.2: Blank Spike Summary 59
7.3: Matrix Spike/Matrix Spike Duplicate Summary 62
7.4: Internal Standard Area Summaries 65
7.5: Surrogate Recovery Summaries 67
Section 8: GC Volatiles - QC Data Summaries **69**
8.1: Method Blank Summary 70
8.2: Blank Spike Summary 71
8.3: Matrix Spike/Matrix Spike Duplicate Summary 72
8.4: Surrogate Recovery Summaries 73
8.5: GC Surrogate Retention Time Summaries 74

Sample Summary

Shell Oil

Job No: MC38105

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
MC38105-1	04/17/15	13:30	DCES	04/18/15	AQ	Ground Water	P114-ROX-041715
MC38105-2	04/17/15	15:10	DCES	04/18/15	AQ	Ground Water	P93A-ROX-041715
MC38105-3	04/17/15	00:00	DCES	04/18/15	AQ	Trip Blank Water	TB-ROX-041715-HCL
MC38105-4	04/17/15	00:00	DCES	04/18/15	AQ	Trip Blank Water	TB-ROX-041715-ST

ACCUTEST LABORATORIES

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	MC38105
Site:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central	**Report Date**	5/4/2015 5:52:50 PM

2 Sample(s) and 2 Trip Blank(s) were collected on 04/17/2015 and were received at Accutest on 04/18/2015 properly preserved, at 1.6 Deg. C and intact. These Samples received an Accutest job number of MC38105. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report. 1-Chlorohexane, Benzenethiol, Dibenz(a,h)acridine, Indene, and Quinoline were searched in the library search and reported only if detections were found.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix AQ **Batch ID:** MSP2774

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC38105-1MS, MC38105-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- MC38105-1 for 4-Bromofluorobenzene: Outside control limits due to possible matrix interference. Confirmed by reanalysis.

Matrix AQ **Batch ID:** MSV1391

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC38128-2MS, MC38128-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- MC38128-2MS/MSD Recovery(s) for 2-Chloroethyl vinyl ether are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Initial calibration verification standard MSV1332-ICV1332 for 2-hexanone exceed 30% Difference (response bias high). Associated samples are non-detect for this compound.

Extractables by GCMS By Method SW846 8270D

Matrix AQ **Batch ID:** OP42752

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC38000-17MS, MC38000-17MSD were used as the QC samples indicated.
- Initial calibration verification MSW902-ICV902, file W21009 for Hexachlorocyclopentadiene exceed 30% Difference.

Extractables by GCMS By Method SW846 8270D BY SIM

Matrix AQ **Batch ID:** OP42753

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC38000-18MS, MC38000-18MSD were used as the QC samples indicated.
- Sample(s) MC38105-1 have compound(s) reported with a "B" qualifier, indicating analyte is found in the associated method blank.

Volatiles by GC By Method SW846 8011

Matrix AQ	Batch ID: OP42754

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC38000-19MS, MC38000-19MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC38105).

Summary of Hits

Job Number: MC38105
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL.
Collected: 04/17/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC38105-1	P114-ROX-041715					
Methyl Tert Butyl Ether		23.7	1.0	0.35	ug/l	SW846 8260C
Di-n-butyl phthalate		0.31 J	5.3	0.28	ug/l	SW846 8270D
bis(2-Ethylhexyl)phthalate		0.38 J	2.1	0.33	ug/l	SW846 8270D
Acenaphthene		0.21	0.11	0.0079	ug/l	SW846 8270D BY SIM
Acenaphthylene		0.044 J	0.11	0.0088	ug/l	SW846 8270D BY SIM
Anthracene		0.054 J	0.11	0.010	ug/l	SW846 8270D BY SIM
Fluoranthene		0.023 J	0.11	0.0078	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		0.025 JB J	2.1	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		0.029 JB J	2.1	0.012	ug/l	SW846 8270D BY SIM
Phenanthrene		0.039 J	0.053	0.011	ug/l	SW846 8270D BY SIM
Pyrene		0.027 J	0.11	0.0089	ug/l	SW846 8270D BY SIM
MC38105-2	P93A-ROX-041715					
Benzene		139000	2500	1400	ug/l	SW846 8260C
n-Butylbenzene		0.77 J	5.0	0.50	ug/l	SW846 8260C
sec-Butylbenzene		4.8 J	5.0	0.50	ug/l	SW846 8260C
tert-Butylbenzene		14.0	5.0	0.57	ug/l	SW846 8260C
Ethylbenzene		55.9	1.0	0.24	ug/l	SW846 8260C
Isopropylbenzene		4.9 J	5.0	0.27	ug/l	SW846 8260C
p-Isopropyltoluene		3.6 J	5.0	0.32	ug/l	SW846 8260C
Naphthalene		11.0	5.0	2.0	ug/l	SW846 8260C
n-Propylbenzene		5.9	5.0	0.29	ug/l	SW846 8260C
Toluene		3.0	1.0	0.29	ug/l	SW846 8260C
1,2,4-Trimethylbenzene		88.6	5.0	0.29	ug/l	SW846 8260C
1,3,5-Trimethylbenzene		30.0	5.0	0.20	ug/l	SW846 8260C
m,p-Xylene		47.7	1.0	0.47	ug/l	SW846 8260C
o-Xylene		19.9	1.0	0.22	ug/l	SW846 8260C
Xylene (total)		67.7	1.0	0.22	ug/l	SW846 8260C
3&4-Methylphenol		0.63 J	11	0.47	ug/l	SW846 8270D
Phenol		25.1	5.3	0.34	ug/l	SW846 8270D
Dibenzofuran		0.29 J	2.1	0.26	ug/l	SW846 8270D
bis(2-Ethylhexyl)phthalate		0.46 J	2.1	0.33	ug/l	SW846 8270D
Acenaphthene		0.11	0.11	0.0079	ug/l	SW846 8270D BY SIM
Anthracene		0.031 J	0.11	0.010	ug/l	SW846 8270D BY SIM
Fluoranthene		0.017 J	0.11	0.0078	ug/l	SW846 8270D BY SIM
Fluorene		0.21	0.11	0.016	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		6.1	2.1	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		2.8	2.1	0.012	ug/l	SW846 8270D BY SIM
Phenanthrene		0.18	0.053	0.011	ug/l	SW846 8270D BY SIM
Pyrene		0.026 J	0.11	0.0089	ug/l	SW846 8270D BY SIM

Summary of Hits

Job Number: MC38105
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Collected: 04/17/15

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC38105-3	TB-ROX-041715-HCL					
No hits reported in this sample.						
MC38105-4	TB-ROX-041715-ST					
No hits reported in this sample.						

New England ACCUTEST LABORATORIES

4

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	P114-ROX-041715		
Lab Sample ID:	MC38105-1	Date Sampled:	04/17/15
Matrix:	AQ - Ground Water	Date Received:	04/18/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38644.D	1	05/01/15	KD	n/a	n/a	MSV1391
Run #2	P84639.D	1	05/01/15	JB	n/a	n/a	MSP2774

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND [a]	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P114-ROX-041715		
Lab Sample ID:	MC38105-1	Date Sampled:	04/17/15
Matrix:	AQ - Ground Water	Date Received:	04/18/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	23.7	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P114-ROX-041715		
Lab Sample ID:	MC38105-1	Date Sampled:	04/17/15
Matrix:	AQ - Ground Water	Date Received:	04/18/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

4.1
4

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	116%	105%	72-133%
2037-26-5	Toluene-D8	103%	100%	85-114%
460-00-4	4-Bromofluorobenzene	110%	210% [b]	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Result is from Run# 2
(b) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P114-ROX-041715		
Lab Sample ID:	MC38105-1	Date Sampled:	04/17/15
Matrix:	AQ - Ground Water	Date Received:	04/18/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21642.D	1	04/24/15	KD	04/20/15	OP42752	MSW925
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.3	0.31	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.53	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.49	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	0.36	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	0.62	ug/l	
95-48-7	2-Methylphenol	ND	11	0.31	ug/l	
	3&4-Methylphenol	ND	11	0.47	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.49	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	11	0.36	ug/l	
108-95-2	Phenol	ND	5.3	0.34	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.47	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.47	ug/l	
62-53-3	Aniline	ND	11	0.48	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.26	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.34	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	0.36	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.38	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	0.52	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.44	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.44	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	0.27	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	0.31	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.39	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.40	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.56	ug/l	
132-64-9	Dibenzofuran	ND	2.1	0.26	ug/l	
84-74-2	Di-n-butyl phthalate	0.31	5.3	0.28	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.3	0.30	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P114-ROX-041715		
Lab Sample ID:	MC38105-1	Date Sampled:	04/17/15
Matrix:	AQ - Ground Water	Date Received:	04/18/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.3	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	5.3	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	0.38	2.1	0.33	ug/l	J
118-74-1	Hexachlorobenzene	ND	5.3	0.26	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.3	0.30	ug/l	
78-59-1	Isophorone	ND	5.3	0.49	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.38	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.43	ug/l	
100-01-6	4-Nitroaniline	ND	11	0.54	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.51	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	0.27	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.26	ug/l	
110-86-1	Pyridine	ND	11	0.38	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	49%		10-79%
4165-62-2	Phenol-d5	34%		10-72%
118-79-6	2,4,6-Tribromophenol	105%		35-138%
4165-60-0	Nitrobenzene-d5	85%		30-116%
321-60-8	2-Fluorobiphenyl	78%		35-107%
1718-51-0	Terphenyl-d14	98%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P114-ROX-041715		
Lab Sample ID:	MC38105-1	Date Sampled:	04/17/15
Matrix:	AQ - Ground Water	Date Received:	04/18/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95328.D	1	04/27/15	MR	04/20/15	OP42753	MSI3566
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.21	0.11	0.0079	ug/l	
208-96-8	Acenaphthylene	0.044	0.11	0.0088	ug/l	J
120-12-7	Anthracene	0.054	0.11	0.010	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.053	0.025	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.053	0.020	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.011	ug/l	
218-01-9	Chrysene	ND	0.11	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.016	ug/l	
206-44-0	Fluoranthene	0.023	0.11	0.0078	ug/l	J
86-73-7	Fluorene	ND	0.11	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.021	ug/l	
90-12-0	1-Methylnaphthalene	0.025 J	2.1	0.013	ug/l	JB J
91-57-6	2-Methylnaphthalene	0.029 J	2.1	0.012	ug/l	JB J
85-01-8	Phenanthrene	0.039	0.053	0.011	ug/l	J
129-00-0	Pyrene	0.027	0.11	0.0089	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	85%		26-121%
321-60-8	2-Fluorobiphenyl	72%		28-107%
1718-51-0	Terphenyl-d14	105%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P114-ROX-041715		
Lab Sample ID:	MC38105-1	Date Sampled:	04/17/15
Matrix:	AQ - Ground Water	Date Received:	04/18/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62919.D	1	04/21/15	NK	04/20/15	OP42754	GBB3423
Run #2							

	Initial Volume	Final Volume
Run #1	38.4 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0056	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0056	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	99%		60-140%
460-00-4	Bromofluorobenzene (S)	107%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93A-ROX-041715		
Lab Sample ID:	MC38105-2	Date Sampled:	04/17/15
Matrix:	AQ - Ground Water	Date Received:	04/18/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38627.D	1	05/01/15	KD	n/a	n/a	MSV1391
Run #2	P84641.D	5000	05/01/15	JB	n/a	n/a	MSP2774

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	139000 [a]	2500	1400	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	0.77	5.0	0.50	ug/l	J
135-98-8	sec-Butylbenzene	4.8	5.0	0.50	ug/l	J
98-06-6	tert-Butylbenzene	14.0	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93A-ROX-041715		
Lab Sample ID:	MC38105-2	Date Sampled:	04/17/15
Matrix:	AQ - Ground Water	Date Received:	04/18/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	55.9	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	4.9	5.0	0.27	ug/l	J
99-87-6	p-Isopropyltoluene	3.6	5.0	0.32	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	11.0	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	5.9	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	3.0	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	88.6	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	30.0	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	47.7	1.0	0.47	ug/l	
95-47-6	o-Xylene	19.9	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	67.7	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93A-ROX-041715		
Lab Sample ID:	MC38105-2	Date Sampled:	04/17/15
Matrix:	AQ - Ground Water	Date Received:	04/18/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%	104%	72-133%
2037-26-5	Toluene-D8	95%	98%	85-114%
460-00-4	4-Bromofluorobenzene	94%	111%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93A-ROX-041715		
Lab Sample ID:	MC38105-2	Date Sampled:	04/17/15
Matrix:	AQ - Ground Water	Date Received:	04/18/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21643.D	1	04/24/15	KD	04/20/15	OP42752	MSW925
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.3	0.31	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.53	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.49	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	0.36	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	0.62	ug/l	
95-48-7	2-Methylphenol	ND	11	0.31	ug/l	
	3&4-Methylphenol	0.63	11	0.47	ug/l	J
88-75-5	2-Nitrophenol	ND	11	0.49	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	11	0.36	ug/l	
108-95-2	Phenol	25.1	5.3	0.34	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.47	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.47	ug/l	
62-53-3	Aniline	ND	11	0.48	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.26	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.34	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	0.36	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.38	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	0.52	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.44	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.44	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	0.27	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	0.31	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.39	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.40	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.56	ug/l	
132-64-9	Dibenzofuran	0.29	2.1	0.26	ug/l	J
84-74-2	Di-n-butyl phthalate	ND	5.3	0.28	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	0.30	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93A-ROX-041715		
Lab Sample ID:	MC38105-2	Date Sampled:	04/17/15
Matrix:	AQ - Ground Water	Date Received:	04/18/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.3	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	5.3	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	0.46	2.1	0.33	ug/l	J
118-74-1	Hexachlorobenzene	ND	5.3	0.26	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.3	0.30	ug/l	
78-59-1	Isophorone	ND	5.3	0.49	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.38	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.43	ug/l	
100-01-6	4-Nitroaniline	ND	11	0.54	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.51	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	0.27	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.26	ug/l	
110-86-1	Pyridine	ND	11	0.38	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	49%		10-79%
4165-62-2	Phenol-d5	33%		10-72%
118-79-6	2,4,6-Tribromophenol	107%		35-138%
4165-60-0	Nitrobenzene-d5	80%		30-116%
321-60-8	2-Fluorobiphenyl	75%		35-107%
1718-51-0	Terphenyl-d14	102%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93A-ROX-041715		
Lab Sample ID:	MC38105-2	Date Sampled:	04/17/15
Matrix:	AQ - Ground Water	Date Received:	04/18/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95329.D	1	04/27/15	MR	04/20/15	OP42753	MSI3566
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.11	0.11	0.0079	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.0088	ug/l	
120-12-7	Anthracene	0.031	0.11	0.010	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.053	0.025	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.053	0.020	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.011	ug/l	
218-01-9	Chrysene	ND	0.11	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.016	ug/l	
206-44-0	Fluoranthene	0.017	0.11	0.0078	ug/l	J
86-73-7	Fluorene	0.21	0.11	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.021	ug/l	
90-12-0	1-Methylnaphthalene	6.1	2.1	0.013	ug/l	
91-57-6	2-Methylnaphthalene	2.8	2.1	0.012	ug/l	
85-01-8	Phenanthrene	0.18	0.053	0.011	ug/l	
129-00-0	Pyrene	0.026	0.11	0.0089	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	82%		26-121%
321-60-8	2-Fluorobiphenyl	69%		28-107%
1718-51-0	Terphenyl-d14	102%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93A-ROX-041715		
Lab Sample ID:	MC38105-2	Date Sampled:	04/17/15
Matrix:	AQ - Ground Water	Date Received:	04/18/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62920.D	1	04/22/15	NK	04/20/15	OP42754	GBB3423
Run #2							

	Initial Volume	Final Volume
Run #1	37.1 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0058	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0058	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	110%		60-140%
460-00-4	Bromofluorobenzene (S)	121%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-041715-HCL		
Lab Sample ID:	MC38105-3	Date Sampled:	04/17/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/18/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38615.D	1	05/01/15	KD	n/a	n/a	MSV1391
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-041715-HCL		
Lab Sample ID:	MC38105-3	Date Sampled:	04/17/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/18/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-041715-HCL		
Lab Sample ID:	MC38105-3	Date Sampled:	04/17/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/18/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	119%		72-133%
2037-26-5	Toluene-D8	101%		85-114%
460-00-4	4-Bromofluorobenzene	104%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-041715-ST		
Lab Sample ID:	MC38105-4	Date Sampled:	04/17/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/18/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62921.D	1	04/22/15	NK	04/20/15	OP42754	GBB3423
Run #2							

	Initial Volume	Final Volume
Run #1	37.6 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0057	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0057	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	117%		60-140%
460-00-4	Bromofluorobenzene (S)	122%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

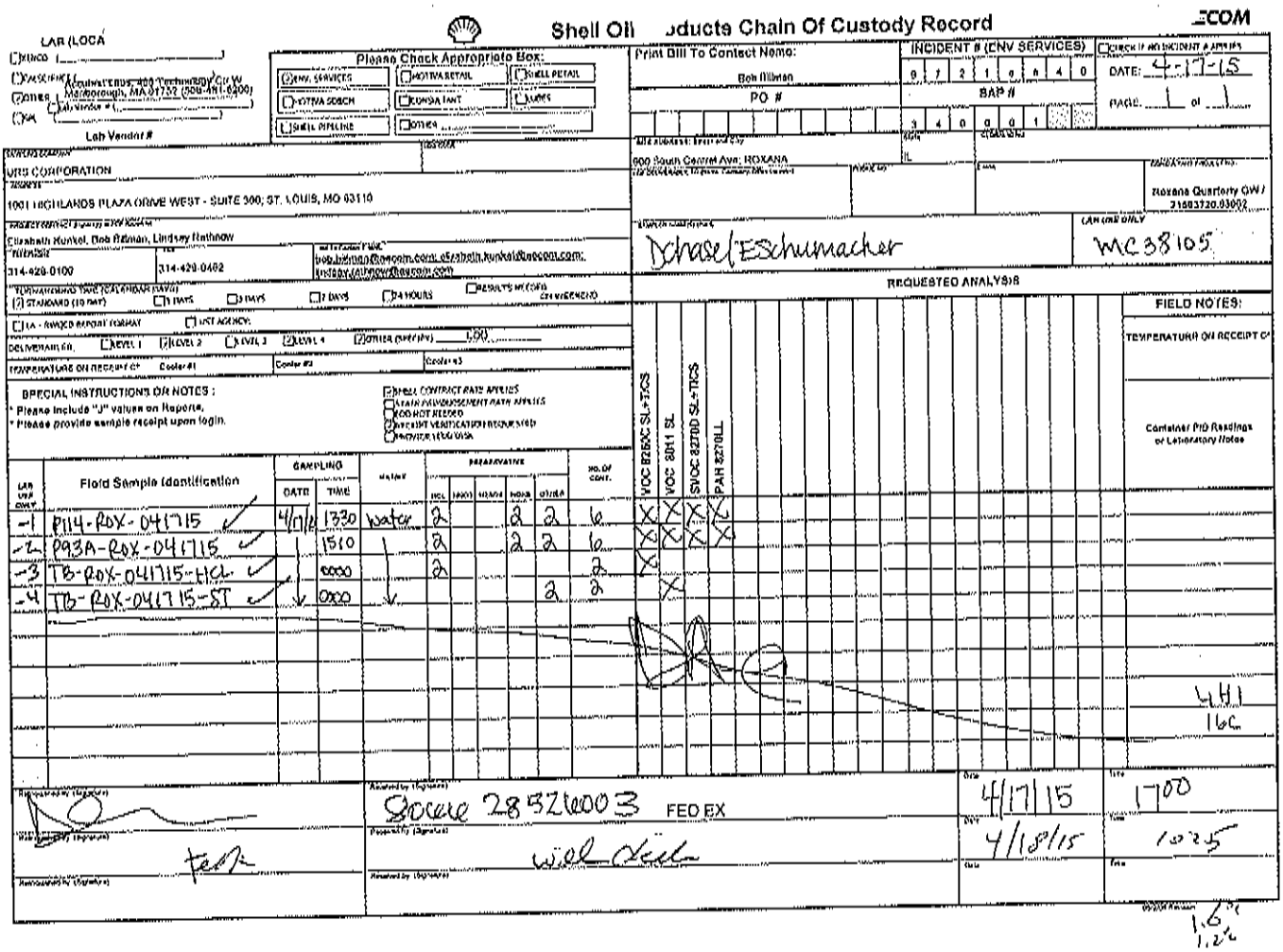
New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



LAB (LOCA

Shell Oil ...ducts Chain Of Custody Record

ECOM

Please Check Appropriate Box:

Print Bill To Contact Name: Bob Billman

INCIDENT # (ENV SERVICES): 9 7 2 1 6 5 4 0

DATE: 4-17-15

PAGE: 1 of 1

PO #

SAP #: 3 4 0 0 0 1

Lab Vendor #

URS CORPORATION

1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300; ST. LOUIS, MO 63110

Elizabeth Kunkel, Bob Billman, Lindsey Rathbow

314-429-0100 | 314-429-0462

bob.billman@aecom.com; elizabeth.kunkel@aecom.com; lindsey.rathbow@aecom.com

600 South Central Ave; ROXANA

Roxana Quarterly GW / 21603720.03002

Dchase/Eschumacher

LAB USE ONLY: MC38105

REQUESTED ANALYSIS

SPECIAL INSTRUCTIONS OR NOTES:
* Please include "J" values on Reports.
* Please provide sample receipt upon login.

FIELD NOTES:

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	HCL	NOAH	NOAH	NOAH	OTHER	NO. OF CONT.	VOC 8260C SL+TICS	VOC 8011 SL	SVOC 8270D SL+TICS	PAH 8270LL	Container PID Readings or Laboratory Notes
-1	P114-ROX-041715	4/17/15	1330	water	2			2	2	6	X	X	X	X	
-2	P93A-ROX-041715		1510		2			2	2	6	X	X	X	X	
-3	TB-ROX-041715-HCL		0000		2					2	X				
-4	TB-ROX-041715-ST		0000						2	2		X			

4H1
16C

Relinquished by (Signature)	Received by (Signature)	Date	Time
[signature]	Socere 28526003 FED EX	4/17/15	1700
Relinquished by (Signature): [signature]	Received by (Signature): [signature]	4/18/15	1025
Relinquished by (Signature)	Received by (Signature)		

1.6°
1.2°

5.1

5

MC38105: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC38105 **Client:** URS **Project:** ROXANA

Date / Time Received: 4/18/2015 10:25:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (1.6/1.6); #2: (1.2/1.2);

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	☑ ☐	3. COC Present:	☑ ☐
2. Custody Seals Intact:	☑ ☐	4. Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Thermometer ID:	G1;
3. Cooler media:	Ice (Bag)
4. No. Coolers:	2

Quality Control Preservation	Y or N	N/A
1. Trip Blank present / cooler:	☑ ☐	☐
2. Trip Blank listed on COC:	☑ ☐	☐
3. Samples preserved properly:	☑ ☐	
4. VOCs headspace free:	☑ ☐	☐

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	☑ ☐
2. Container labeling complete:	☑ ☐
3. Sample container label / COC agree:	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	☑ ☐
2. All containers accounted for:	☑ ☐
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear:	☑ ☐	
2. Bottles received for unspecified tests	☐ ☑	
3. Sufficient volume recvd for analysis:	☑ ☐	
4. Compositing instructions clear:	☐ ☐	☑
5. Filtering instructions clear:	☐ ☐	☑

Comments

Accutest Laboratories
V:(508) 481-6200
495 Technology Center West, Bldg One
F: (508) 481-7753
Marlborough, MA 01752
www.accutest.com

5.1

MC38105: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC38105

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC38105-1 Collected: 17-APR-15 13:30 By: DCES Received: 18-APR-15 By: BA						
P114-ROX-041715						
MC38105-1	SW846 8011	21-APR-15 23:35	NK	20-APR-15	NE	V8011SL
MC38105-1	SW846 8270D	24-APR-15 12:37	KD	20-APR-15	FC	AB8270SL+
MC38105-1	SW846 8270D BY SIM	27-APR-15 12:33	MR	20-APR-15	FC	B8270SIMSL
MC38105-1	SW846 8260C	01-MAY-15 15:47	KD			V8260SL+
MC38105-1	SW846 8260C	01-MAY-15 18:33	JB			V8260SL+
MC38105-2 Collected: 17-APR-15 15:10 By: DCES Received: 18-APR-15 By: BA						
P93A-ROX-041715						
MC38105-2	SW846 8011	22-APR-15 00:04	NK	20-APR-15	NE	V8011SL
MC38105-2	SW846 8270D	24-APR-15 13:02	KD	20-APR-15	FC	AB8270SL+
MC38105-2	SW846 8270D BY SIM	27-APR-15 12:57	MR	20-APR-15	FC	B8270SIMSL
MC38105-2	SW846 8260C	01-MAY-15 07:41	KD			V8260SL+
MC38105-2	SW846 8260C	01-MAY-15 19:32	JB			V8260SL+
MC38105-3 Collected: 17-APR-15 00:00 By: DCES Received: 18-APR-15 By: BA						
TB-ROX-041715-HCL						
MC38105-3	SW846 8260C	01-MAY-15 01:59	KD			V8260SL+
MC38105-4 Collected: 17-APR-15 00:00 By: DCES Received: 18-APR-15 By: BA						
TB-ROX-041715-ST						
MC38105-4	SW846 8011	22-APR-15 00:34	NK	20-APR-15	NE	V8011SL

Accutest Internal Chain of Custody

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Received: 04/18/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC38105-1.1	Walk In Ref #22	Forrest Thompson	04/20/15 15:30	Retrieve from Storage
MC38105-1.1	Forrest Thompson		05/03/15 16:58	Depleted
MC38105-1.3	VOC Ref #4	Nicole Estey	04/20/15 14:22	Retrieve from Storage
MC38105-1.3	Nicole Estey		04/20/15 21:01	Depleted
MC38105-1.6	VOC Ref #4	Krysten Dufort	04/30/15 15:57	Retrieve from Storage
MC38105-1.6	Krysten Dufort	GCMSV	04/30/15 15:57	Load on Instrument
MC38105-1.6	GCMSV	Krysten Dufort	05/01/15 12:45	Unload from Instrument
MC38105-1.6	Krysten Dufort	VOC Ref #4	05/01/15 12:45	Return to Storage
MC38105-2.2	Walk In Ref #22	Forrest Thompson	04/20/15 15:30	Retrieve from Storage
MC38105-2.2	Forrest Thompson		05/03/15 16:58	Depleted
MC38105-2.4	VOC Ref #4	Nicole Estey	04/20/15 14:22	Retrieve from Storage
MC38105-2.4	Nicole Estey		04/20/15 21:01	Depleted
MC38105-2.5	VOC Ref #4	Krysten Dufort	04/30/15 15:57	Retrieve from Storage
MC38105-2.5	Krysten Dufort	GCMSV	04/30/15 15:57	Load on Instrument
MC38105-2.5	GCMSV	Krysten Dufort	05/01/15 12:45	Unload from Instrument
MC38105-2.5	Krysten Dufort	VOC Ref #4	05/01/15 12:45	Return to Storage
MC38105-3.2	VOC Ref #4	Krysten Dufort	04/30/15 15:57	Retrieve from Storage
MC38105-3.2	Krysten Dufort	GCMSV	04/30/15 15:57	Load on Instrument
MC38105-3.2	GCMSV	Krysten Dufort	05/01/15 12:45	Unload from Instrument
MC38105-3.2	Krysten Dufort	VOC Ref #4	05/01/15 12:45	Return to Storage
MC38105-4.1	VOC Ref #4	Nicole Estey	04/20/15 14:22	Retrieve from Storage
MC38105-4.1	Nicole Estey		04/20/15 21:01	Depleted

5.3
5

New England ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1391-MB	V38614.D	1	05/01/15	KD	n/a	n/a	MSV1391

The QC reported here applies to the following samples: Method: SW846 8260C

MC38105-2, MC38105-3

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	

Method Blank Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1391-MB	V38614.D	1	05/01/15	KD	n/a	n/a	MSV1391

The QC reported here applies to the following samples: Method: SW846 8260C

MC38105-2, MC38105-3

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

Method Blank Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1391-MB	V38614.D	1	05/01/15	KD	n/a	n/a	MSV1391

6.1.1

The QC reported here applies to the following samples: Method: SW846 8260C

MC38105-2, MC38105-3

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	115%	72-133%
2037-26-5	Toluene-D8	101%	85-114%
460-00-4	4-Bromofluorobenzene	100%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1391-MB1	V38643.D	1	05/01/15	KD	n/a	n/a	MSV1391

6.1.2

The QC reported here applies to the following samples: Method: SW846 8260C

MC38105-1

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	

Method Blank Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1391-MB1	V38643.D	1	05/01/15	KD	n/a	n/a	MSV1391

The QC reported here applies to the following samples: Method: SW846 8260C

MC38105-1

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

Method Blank Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1391-MB1	V38643.D	1	05/01/15	KD	n/a	n/a	MSV1391

The QC reported here applies to the following samples: Method: SW846 8260C

MC38105-1

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	118%	72-133%
2037-26-5	Toluene-D8	102%	85-114%
460-00-4	4-Bromofluorobenzene	102%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

6.1.2

Method Blank Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP2774-MB	P84634.D	1	05/01/15	JB	n/a	n/a	MSP2774

The QC reported here applies to the following samples: Method: SW846 8260C

MC38105-1, MC38105-2

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.27	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	72-133%
2037-26-5	Toluene-D8	98%	85-114%
460-00-4	4-Bromofluorobenzene	107%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

6.1.3

Blank Spike Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1391-BS	V38611.D	1	05/01/15	KD	n/a	n/a	MSV1391

6.2.1

The QC reported here applies to the following samples: Method: SW846 8260C

MC38105-2, MC38105-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	52.9	106	14-172
107-02-8	Acrolein	250	212	85	10-168
107-13-1	Acrylonitrile	50	43.1	86	41-158
71-43-2	Benzene	50	42.7	85	68-127
108-86-1	Bromobenzene	50	50.9	102	74-124
74-97-5	Bromochloromethane	50	42.2	84	68-135
75-27-4	Bromodichloromethane	50	55.5	111	72-144
75-25-2	Bromoform	50	42.5	85	59-147
74-83-9	Bromomethane	50	56.0	112	34-175
78-93-3	2-Butanone (MEK)	50	44.7	89	43-147
104-51-8	n-Butylbenzene	50	53.0	106	77-136
135-98-8	sec-Butylbenzene	50	53.3	107	75-134
98-06-6	tert-Butylbenzene	50	53.7	107	74-132
75-15-0	Carbon disulfide	50	31.9	64	34-171
56-23-5	Carbon tetrachloride	50	51.5	103	55-153
108-90-7	Chlorobenzene	50	49.0	98	71-123
75-00-3	Chloroethane	50	49.4	99	58-175
110-75-8	2-Chloroethyl vinyl ether	50	39.4	79	44-169
67-66-3	Chloroform	50	49.9	100	67-136
74-87-3	Chloromethane	50	51.6	103	25-182
95-49-8	o-Chlorotoluene	50	52.8	106	72-130
106-43-4	p-Chlorotoluene	50	53.2	106	73-127
124-48-1	Dibromochloromethane	50	45.3	91	73-139
95-50-1	1,2-Dichlorobenzene	50	48.1	96	77-125
541-73-1	1,3-Dichlorobenzene	50	49.6	99	77-124
106-46-7	1,4-Dichlorobenzene	50	48.3	97	73-128
75-71-8	Dichlorodifluoromethane	50	65.0	130	23-157
75-34-3	1,1-Dichloroethane	50	44.3	89	63-145
107-06-2	1,2-Dichloroethane	50	52.3	105	58-145
75-35-4	1,1-Dichloroethene	50	36.8	74	56-158
156-59-2	cis-1,2-Dichloroethene	50	41.8	84	67-133
156-60-5	trans-1,2-Dichloroethene	50	39.1	78	66-136
78-87-5	1,2-Dichloropropane	50	50.3	101	75-133
142-28-9	1,3-Dichloropropane	50	47.3	95	70-127
594-20-7	2,2-Dichloropropane	50	41.1	82	52-163
563-58-6	1,1-Dichloropropene	50	46.0	92	77-140

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL.

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1391-BS	V38611.D	1	05/01/15	KD	n/a	n/a	MSV1391

6.2.1

The QC reported here applies to the following samples: Method: SW846 8260C

MC38105-2, MC38105-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-01-5	cis-1,3-Dichloropropene	50	45.6	91	74-141
10061-02-6	trans-1,3-Dichloropropene	50	47.5	95	77-143
123-91-1	1,4-Dioxane	250	171	68	30-182
97-63-2	Ethyl methacrylate	50	45.8	92	64-131
100-41-4	Ethylbenzene	50	52.5	105	71-129
87-68-3	Hexachlorobutadiene	50	47.0	94	64-146
591-78-6	2-Hexanone	50	42.6	85	22-163
98-82-8	Isopropylbenzene	50	54.2	108	72-133
99-87-6	p-Isopropyltoluene	50	52.8	106	77-134
1634-04-4	Methyl Tert Butyl Ether	50	45.7	91	46-151
108-10-1	4-Methyl-2-pentanone (MIBK)	50	45.2	90	47-145
74-95-3	Methylene bromide	50	49.8	100	70-132
75-09-2	Methylene chloride	50	38.0	76	55-146
91-20-3	Naphthalene	50	35.4	71	39-176
103-65-1	n-Propylbenzene	50	56.1	112	74-134
100-42-5	Styrene	50	50.3	101	71-134
630-20-6	1,1,1,2-Tetrachloroethane	50	47.6	95	70-137
79-34-5	1,1,2,2-Tetrachloroethane	50	48.0	96	58-145
127-18-4	Tetrachloroethene	50	49.0	98	63-137
108-88-3	Toluene	50	49.2	98	75-126
87-61-6	1,2,3-Trichlorobenzene	50	39.0	78	27-181
120-82-1	1,2,4-Trichlorobenzene	50	41.8	84	40-176
71-55-6	1,1,1-Trichloroethane	50	47.7	95	68-144
79-00-5	1,1,2-Trichloroethane	50	52.1	104	72-133
79-01-6	Trichloroethene	50	48.3	97	73-126
75-69-4	Trichlorofluoromethane	50	65.9	132	43-152
96-18-4	1,2,3-Trichloropropane	50	43.1	86	58-141
95-63-6	1,2,4-Trimethylbenzene	50	54.0	108	76-129
108-67-8	1,3,5-Trimethylbenzene	50	53.9	108	71-127
108-05-4	Vinyl Acetate	50	47.2	94	10-170
75-01-4	Vinyl chloride	50	49.9	100	36-167
	m,p-Xylene	100	102	102	68-130
95-47-6	o-Xylene	50	50.6	101	69-126
1330-20-7	Xylene (total)	150	153	102	67-129

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1391-BS	V38611.D	1	05/01/15	KD	n/a	n/a	MSV1391

The QC reported here applies to the following samples: Method: SW846 8260C

MC38105-2, MC38105-3

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	105%	72-133%
2037-26-5	Toluene-D8	104%	85-114%
460-00-4	4-Bromofluorobenzene	105%	70-134%

6.2.1

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1391-BS1	V38637.D	1	05/01/15	KD	n/a	n/a	MSV1391

The QC reported here applies to the following samples: Method: SW846 8260C

MC38105-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	61.0	122	14-172
107-02-8	Acrolein	250	170	68	10-168
107-13-1	Acrylonitrile	50	44.3	89	41-158
108-86-1	Bromobenzene	50	53.2	106	74-124
74-97-5	Bromochloromethane	50	43.9	88	68-135
75-27-4	Bromodichloromethane	50	56.5	113	72-144
75-25-2	Bromoform	50	41.3	83	59-147
74-83-9	Bromomethane	50	59.4	119	34-175
78-93-3	2-Butanone (MEK)	50	48.4	97	43-147
104-51-8	n-Butylbenzene	50	55.9	112	77-136
135-98-8	sec-Butylbenzene	50	56.7	113	75-134
98-06-6	tert-Butylbenzene	50	56.8	114	74-132
75-15-0	Carbon disulfide	50	32.8	66	34-171
56-23-5	Carbon tetrachloride	50	52.9	106	55-153
108-90-7	Chlorobenzene	50	51.1	102	71-123
75-00-3	Chloroethane	50	53.0	106	58-175
110-75-8	2-Chloroethyl vinyl ether	50	41.7	83	44-169
67-66-3	Chloroform	50	52.8	106	67-136
74-87-3	Chloromethane	50	51.9	104	25-182
95-49-8	o-Chlorotoluene	50	55.5	111	72-130
106-43-4	p-Chlorotoluene	50	55.2	110	73-127
124-48-1	Dibromochloromethane	50	45.4	91	73-139
95-50-1	1,2-Dichlorobenzene	50	49.8	100	77-125
541-73-1	1,3-Dichlorobenzene	50	52.0	104	77-124
106-46-7	1,4-Dichlorobenzene	50	50.6	101	73-128
75-71-8	Dichlorodifluoromethane	50	64.6	129	23-157
75-34-3	1,1-Dichloroethane	50	47.0	94	63-145
107-06-2	1,2-Dichloroethane	50	54.1	108	58-145
75-35-4	1,1-Dichloroethene	50	37.8	76	56-158
156-59-2	cis-1,2-Dichloroethene	50	44.8	90	67-133
156-60-5	trans-1,2-Dichloroethene	50	41.0	82	66-136
78-87-5	1,2-Dichloropropane	50	52.8	106	75-133
142-28-9	1,3-Dichloropropane	50	48.1	96	70-127
594-20-7	2,2-Dichloropropane	50	50.5	101	52-163
563-58-6	1,1-Dichloropropene	50	47.4	95	77-140
10061-01-5	cis-1,3-Dichloropropene	50	48.3	97	74-141

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1391-BS1	V38637.D	1	05/01/15	KD	n/a	n/a	MSV1391

The QC reported here applies to the following samples: Method: SW846 8260C

MC38105-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	50	49.9	100	77-143
123-91-1	1,4-Dioxane	250	190	76	30-182
97-63-2	Ethyl methacrylate	50	47.0	94	64-131
100-41-4	Ethylbenzene	50	55.2	110	71-129
87-68-3	Hexachlorobutadiene	50	51.0	102	64-146
591-78-6	2-Hexanone	50	49.3	99	22-163
98-82-8	Isopropylbenzene	50	57.5	115	72-133
99-87-6	p-Isopropyltoluene	50	56.6	113	77-134
1634-04-4	Methyl Tert Butyl Ether	50	49.4	99	46-151
108-10-1	4-Methyl-2-pentanone (MIBK)	50	47.9	96	47-145
74-95-3	Methylene bromide	50	51.2	102	70-132
75-09-2	Methylene chloride	50	40.5	81	55-146
91-20-3	Naphthalene	50	37.2	74	39-176
103-65-1	n-Propylbenzene	50	58.8	118	74-134
100-42-5	Styrene	50	52.5	105	71-134
630-20-6	1,1,1,2-Tetrachloroethane	50	50.3	101	70-137
79-34-5	1,1,2,2-Tetrachloroethane	50	49.0	98	58-145
127-18-4	Tetrachloroethene	50	51.4	103	63-137
108-88-3	Toluene	50	51.4	103	75-126
87-61-6	1,2,3-Trichlorobenzene	50	41.2	82	27-181
120-82-1	1,2,4-Trichlorobenzene	50	44.4	89	40-176
71-55-6	1,1,1-Trichloroethane	50	50.6	101	68-144
79-00-5	1,1,2-Trichloroethane	50	53.1	106	72-133
79-01-6	Trichloroethene	50	50.3	101	73-126
75-69-4	Trichlorofluoromethane	50	64.8	130	43-152
96-18-4	1,2,3-Trichloropropane	50	45.0	90	58-141
95-63-6	1,2,4-Trimethylbenzene	50	57.0	114	76-129
108-67-8	1,3,5-Trimethylbenzene	50	57.8	116	71-127
108-05-4	Vinyl Acetate	50	50.0	100	10-170
75-01-4	Vinyl chloride	50	51.2	102	36-167
	m,p-Xylene	100	107	107	68-130
95-47-6	o-Xylene	50	53.8	108	69-126
1330-20-7	Xylene (total)	150	160	107	67-129

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1391-BS1	V38637.D	1	05/01/15	KD	n/a	n/a	MSV1391

The QC reported here applies to the following samples: Method: SW846 8260C

MC38105-1

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	104%	72-133%
2037-26-5	Toluene-D8	104%	85-114%
460-00-4	4-Bromofluorobenzene	104%	70-134%

6.2.2

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP2774-BS	P84631.D	1	05/01/15	JB	n/a	n/a	MSP2774

6.2.3

The QC reported here applies to the following samples: Method: SW846 8260C

MC38105-1, MC38105-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	45.5	91	68-127

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	99%	72-133%
2037-26-5	Toluene-D8	101%	85-114%
460-00-4	4-Bromofluorobenzene	99%	70-134%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC38128-2MS	V38632.D	5	05/01/15	KD	n/a	n/a	MSV1391
MC38128-2MSD	V38633.D	5	05/01/15	KD	n/a	n/a	MSV1391
MC38128-2	V38618.D	1	05/01/15	KD	n/a	n/a	MSV1391

The QC reported here applies to the following samples: Method: SW846 8260C

MC38105-1, MC38105-2, MC38105-3

CAS No.	Compound	MC38128-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250	148	59	250	146	58	1	10-135/30
107-02-8	Acrolein	ND		1250	911	73	1250	909	73	0	10-175/30
107-13-1	Acrylonitrile	ND		250	205	82	250	213	85	4	37-163/30
71-43-2	Benzene	ND		250	236	94	250	236	94	0	61-138/30
108-86-1	Bromobenzene	ND		250	261	104	250	266	106	2	71-126/30
74-97-5	Bromochloromethane	ND		250	212	85	250	213	85	0	70-136/30
75-27-4	Bromodichloromethane	ND		250	252	101	250	264	106	5	73-146/30
75-25-2	Bromoform	ND		250	182	73	250	194	78	6	54-147/30
74-83-9	Bromomethane	ND		250	249	100	250	248	99	0	20-171/30
78-93-3	2-Butanone (MEK)	ND		250	169	68	250	176	70	4	33-127/30
104-51-8	n-Butylbenzene	ND		250	247	99	250	255	102	3	69-138/30
135-98-8	sec-Butylbenzene	ND		250	260	104	250	268	107	3	71-137/30
98-06-6	tert-Butylbenzene	ND		250	262	105	250	271	108	3	68-137/30
75-15-0	Carbon disulfide	ND		250	143	57	250	146	58	2	29-178/30
56-23-5	Carbon tetrachloride	ND		250	232	93	250	243	97	5	57-155/30
108-90-7	Chlorobenzene	ND		250	247	99	250	256	102	4	69-126/30
75-00-3	Chloroethane	ND		250	219	88	250	222	89	1	57-182/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	ND	0* [a]	250	ND	0* [a]	nc	10-200/30
67-66-3	Chloroform	ND		250	244	98	250	248	99	2	66-142/30
74-87-3	Chloromethane	ND		250	232	93	250	214	86	8	18-182/30
95-49-8	o-Chlorotoluene	ND		250	260	104	250	264	106	2	60-145/30
106-43-4	p-Chlorotoluene	ND		250	259	104	250	267	107	3	64-138/30
124-48-1	Dibromochloromethane	ND		250	204	82	250	215	86	5	71-138/30
95-50-1	1,2-Dichlorobenzene	ND		250	238	95	250	243	97	2	75-125/30
541-73-1	1,3-Dichlorobenzene	ND		250	247	99	250	253	101	2	74-125/30
106-46-7	1,4-Dichlorobenzene	ND		250	240	96	250	247	99	3	72-128/30
75-71-8	Dichlorodifluoromethane	ND		250	309	124	250	315	126	2	23-159/30
75-34-3	1,1-Dichloroethane	ND		250	222	89	250	227	91	2	63-150/30
107-06-2	1,2-Dichloroethane	ND		250	252	101	250	259	104	3	57-150/30
75-35-4	1,1-Dichloroethene	ND		250	178	71	250	179	72	1	53-165/30
156-59-2	cis-1,2-Dichloroethene	ND		250	211	84	250	215	86	2	66-138/30
156-60-5	trans-1,2-Dichloroethene	ND		250	197	79	250	199	80	1	65-141/30
78-87-5	1,2-Dichloropropane	ND		250	251	100	250	257	103	2	76-136/30
142-28-9	1,3-Dichloropropane	ND		250	237	95	250	241	96	2	71-127/30
594-20-7	2,2-Dichloropropane	ND		250	147	59	250	150	60	2	33-175/30
563-58-6	1,1-Dichloropropene	ND		250	225	90	250	236	94	5	76-145/30

* = Outside of Control Limits.

6.3.1

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC38128-2MS	V38632.D	5	05/01/15	KD	n/a	n/a	MSV1391
MC38128-2MSD	V38633.D	5	05/01/15	KD	n/a	n/a	MSV1391
MC38128-2	V38618.D	1	05/01/15	KD	n/a	n/a	MSV1391

The QC reported here applies to the following samples: Method: SW846 8260C

MC38105-1, MC38105-2, MC38105-3

CAS No.	Compound	MC38128-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		250	210	84	250	218	87	4	75-137/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	217	87	250	231	92	6	77-139/30
123-91-1	1,4-Dioxane	ND		1250	817	65	1250	989	79	19	29-167/30
97-63-2	Ethyl methacrylate	ND		250	230	92	250	239	96	4	60-135/30
100-41-4	Ethylbenzene	ND		250	261	104	250	270	108	3	61-137/30
87-68-3	Hexachlorobutadiene	ND		250	221	88	250	235	94	6	59-141/30
591-78-6	2-Hexanone	ND		250	169	68	250	174	70	3	12-141/30
98-82-8	Isopropylbenzene	ND		250	271	108	250	278	111	3	64-141/30
99-87-6	p-Isopropyltoluene	ND		250	256	102	250	265	106	3	73-135/30
1634-04-4	Methyl Tert Butyl Ether	ND		250	239	96	250	242	97	1	34-160/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	222	89	250	230	92	4	47-143/30
74-95-3	Methylene bromide	ND		250	239	96	250	247	99	3	73-132/30
75-09-2	Methylene chloride	ND		250	189	76	250	189	76	0	52-154/30
91-20-3	Naphthalene	ND		250	176	70	250	184	74	4	21-185/30
103-65-1	n-Propylbenzene	ND		250	271	108	250	281	112	4	66-141/30
100-42-5	Styrene	ND		250	248	99	250	254	102	2	60-142/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	228	91	250	238	95	4	69-138/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	237	95	250	239	96	1	58-147/30
127-18-4	Tetrachloroethene	ND		250	247	99	250	255	102	3	60-140/30
108-88-3	Toluene	ND		250	245	98	250	254	102	4	74-131/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	190	76	250	203	81	7	12-184/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	204	82	250	213	85	4	30-175/30
71-55-6	1,1,1-Trichloroethane	ND		250	229	92	250	235	94	3	67-151/30
79-00-5	1,1,2-Trichloroethane	ND		250	253	101	250	259	104	2	73-134/30
79-01-6	Trichloroethene	ND		250	236	94	250	244	98	3	68-133/30
75-69-4	Trichlorofluoromethane	ND		250	285	114	250	287	115	1	40-159/30
96-18-4	1,2,3-Trichloropropane	ND		250	206	82	250	209	84	1	54-141/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	263	105	250	268	107	2	62-142/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	262	105	250	268	107	2	62-133/30
108-05-4	Vinyl Acetate	ND		250	223	89	250	226	90	1	10-169/30
75-01-4	Vinyl chloride	ND		250	231	92	250	221	88	4	29-176/30
	m,p-Xylene	ND		500	508	102	500	521	104	3	58-139/30
95-47-6	o-Xylene	ND		250	253	101	250	263	105	4	61-135/30
1330-20-7	Xylene (total)	ND		750	761	101	750	784	105	3	60-136/30

* = Outside of Control Limits.

6.3.1

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC38128-2MS	V38632.D	5	05/01/15	KD	n/a	n/a	MSV1391
MC38128-2MSD	V38633.D	5	05/01/15	KD	n/a	n/a	MSV1391
MC38128-2	V38618.D	1	05/01/15	KD	n/a	n/a	MSV1391

The QC reported here applies to the following samples: Method: SW846 8260C

MC38105-1, MC38105-2, MC38105-3

CAS No.	Surrogate Recoveries	MS	MSD	MC38128-2	Limits
1868-53-7	Dibromofluoromethane	102%	100%	126%	72-133%
2037-26-5	Toluene-D8	103%	103%	103%	85-114%
460-00-4	4-Bromofluorobenzene	105%	106%	100%	70-134%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

6.3.1

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC38105-1MS	P84645.D	5	05/01/15	JB	n/a	n/a	MSP2774
MC38105-1MSD	P84646.D	5	05/01/15	JB	n/a	n/a	MSP2774
MC38105-1	P84639.D	1	05/01/15	JB	n/a	n/a	MSP2774

6.3.2

The QC reported here applies to the following samples: Method: SW846 8260C

MC38105-1, MC38105-2

CAS No.	Compound	MC38105-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		250	262	105	250	240	96	9	61-138/30

CAS No.	Surrogate Recoveries	MS	MSD	MC38105-1	Limits
1868-53-7	Dibromofluoromethane	102%	100%	105%	72-133%
2037-26-5	Toluene-D8	102%	101%	100%	85-114%
460-00-4	4-Bromofluorobenzene	110%	110%	210%* [a]	70-134%

(a) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

* = Outside of Control Limits.

Volatile Internal Standard Area Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSP2774-CC2751	Injection Date:	05/01/15
Lab File ID:	P84631.D	Injection Time:	14:30
Instrument ID:	GCMSP	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	815219	8.42	1051992	9.26	564203	12.46	504999	15.02	207837	6.15
Upper Limit [a]	1630438	8.92	2103984	9.76	1128406	12.96	1009998	15.52	415674	6.65
Lower Limit [b]	407610	7.92	525996	8.76	282102	11.96	252500	14.52	103919	5.65
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSP2774-BS	815219	8.42	1051992	9.26	564203	12.46	504999	15.02	207837	6.15
MSP2774-MB	782566	8.43	998603	9.27	482485	12.47	402855	15.02	232551	6.21
GP19094-LB1	754711	8.43	961098	9.27	468088	12.47	401041	15.02	180914	6.19
ZZZZZZ	609768	8.42	815218	9.27	394779	12.47	324912	15.02	208579	6.23
ZZZZZZ	758468	8.43	974944	9.27	468230	12.47	382842	15.02	226974	6.20
ZZZZZZ	735376	8.43	949466	9.27	455136	12.47	380638	15.02	229266	6.19
MC38105-1	712381	8.42	931088	9.26	449318	12.47	376924	15.02	211093	6.18
ZZZZZZ	709604	8.42	930467	9.26	444214	12.47	365996	15.02	176165	6.21
MC38105-2	756559	8.43	995216	9.26	477534	12.47	389447	15.02	190803	6.21
ZZZZZZ	748316	8.42	980267	9.26	476422	12.47	383191	15.02	165101	6.21
ZZZZZZ	721508	8.43	964058	9.27	469702	12.47	407016	15.02	249574	6.20
GP19094-LS1	766940	8.42	973905	9.26	532132	12.46	494366	15.02	196545	6.15
MC38105-1MS	732919	8.42	940147	9.26	516805	12.46	471353	15.02	215142	6.15
MC38105-1MSD	802427	8.42	1036743	9.26	561827	12.46	517191	15.02	304704	6.14

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

6.4.1

Volatile Internal Standard Area Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSV1391-CC1332	Injection Date:	05/01/15
Lab File ID:	V38611.D	Injection Time:	00:04
Instrument ID:	GCMSV	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	384101	6.54	604420	7.73	309209	11.07	329368	13.29	60868	3.51
Upper Limit [a]	768202	7.04	1208840	8.23	618418	11.57	658736	13.79	121736	4.01
Lower Limit [b]	192051	6.04	302210	7.23	154605	10.57	164684	12.79	30434	3.01
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV1391-BS	384101	6.54	604420	7.73	309209	11.07	329368	13.29	60868	3.51
MSV1391-MB	319168	6.55	531421	7.73	279382	11.08	297167	13.29	57267	3.51
MC38105-3	315817	6.54	535522	7.73	283777	11.07	287392	13.29	55752	3.50
ZZZZZZ	291526	6.55	495154	7.73	260884	11.08	272758	13.29	49313	3.51
ZZZZZZ	281903	6.54	483440	7.73	261407	11.08	269358	13.29	50675	3.50
MC38128-2	280773	6.55	479854	7.73	256549	11.08	267621	13.29	47994	3.51
ZZZZZZ	320297	6.55	489146	7.73	260453	11.08	289965	13.29	56170	3.51
ZZZZZZ	315198	6.55	523186	7.73	276051	11.07	298194	13.29	53828	3.51
ZZZZZZ	323077	6.55	529734	7.73	277032	11.08	309003	13.29	55240	3.51
ZZZZZZ	312500	6.54	549908	7.73	280904	11.07	287410	13.29	52184	3.50
ZZZZZZ	321995	6.54	532794	7.73	264153	11.07	287166	13.29	49630	3.51
ZZZZZZ	371500	6.55	598710	7.73	278098	11.07	298579	13.29	59435	3.51
MC38105-2	386875	6.59	654843	7.75	291905	11.07	333913	13.29	59589	3.53
MC38128-2MS	437471	6.54	688985	7.73	348032	11.07	369197	13.29	69726	3.50
MC38128-2MSD	430776	6.54	672910	7.73	340948	11.07	363742	13.29	69925	3.50

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

6.4.2

Volatile Internal Standard Area Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSV1391-CC1332	Injection Date:	05/01/15
Lab File ID:	V38637.D	Injection Time:	12:26
Instrument ID:	GCMSV	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	389860	6.54	613312	7.73	312870	11.07	335499	13.29	64722	3.51
Upper Limit [a]	779720	7.04	1226624	8.23	625740	11.57	670998	13.79	129444	4.01
Lower Limit [b]	194930	6.04	306656	7.23	156435	10.57	167750	12.79	32361	3.01
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV1391-BS1	389860	6.54	613312	7.73	312870	11.07	335499	13.29	64722	3.51
MSV1391-MB1	300224	6.55	503337	7.73	267673	11.08	278604	13.29	53591	3.51
MC38105-1	303392	6.54	507671	7.73	271842	11.07	294563	13.29	60008	3.50

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

6.4.3

Volatile Surrogate Recovery Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8260C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC38105-1	P84639.D	105	100	210* a
MC38105-1	V38644.D	116	103	110
MC38105-2	P84641.D	104	98	111
MC38105-2	V38627.D	104	95	94
MC38105-3	V38615.D	119	101	104
MC38105-1MS	P84645.D	102	102	110
MC38105-1MSD	P84646.D	100	101	110
MC38128-2MS	V38632.D	102	103	105
MC38128-2MSD	V38633.D	100	103	106
MSP2774-BS	P84631.D	99	101	99
MSP2774-MB	P84634.D	102	98	107
MSV1391-BS	V38611.D	105	104	105
MSV1391-BS1	V38637.D	104	104	104
MSV1391-MB	V38614.D	115	101	100
MSV1391-MB1	V38643.D	118	102	102

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	72-133%
S2 = Toluene-D8	85-114%
S3 = 4-Bromofluorobenzene	70-134%

(a) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

6.5.1

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42752-MB	W21633.D	1	04/24/15	KD	04/20/15	OP42752	MSW925

The QC reported here applies to the following samples: Method: SW846 8270D

MC38105-1, MC38105-2

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.5	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.29	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.51	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.47	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.34	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.59	ug/l	
95-48-7	2-Methylphenol	ND	10	0.30	ug/l	
	3&4-Methylphenol	ND	10	0.44	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.47	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.35	ug/l	
108-95-2	Phenol	ND	5.0	0.32	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.45	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.45	ug/l	
62-53-3	Aniline	ND	10	0.46	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.25	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.24	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.32	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.34	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.49	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.42	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.42	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.26	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.37	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.38	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.53	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.27	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	0.29	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.27	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.24	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.32	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.24	ug/l	

Method Blank Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42752-MB	W21633.D	1	04/24/15	KD	04/20/15	OP42752	MSW925

The QC reported here applies to the following samples: Method: SW846 8270D

MC38105-1, MC38105-2

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.28	ug/l	
78-59-1	Isophorone	ND	5.0	0.47	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.36	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.40	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.51	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.48	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.25	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.25	ug/l	
110-86-1	Pyridine	ND	10	0.36	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	48%	10-79%
4165-62-2	Phenol-d5	35%	10-72%
118-79-6	2,4,6-Tribromophenol	95%	35-138%
4165-60-0	Nitrobenzene-d5	82%	30-116%
321-60-8	2-Fluorobiphenyl	79%	35-107%
1718-51-0	Terphenyl-d14	100%	43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

Method Blank Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42753-MB	I95319.D	1	04/27/15	MR	04/20/15	OP42753	MSI3566

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC38105-1, MC38105-2

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.0075	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.0084	ug/l	
120-12-7	Anthracene	ND	0.10	0.0098	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.015	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.019	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.013	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.0074	ug/l	
86-73-7	Fluorene	ND	0.10	0.015	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.020	ug/l	
90-12-0	1-Methylnaphthalene	0.067	2.0	0.012	ug/l	J
91-57-6	2-Methylnaphthalene	0.089	2.0	0.011	ug/l	J
85-01-8	Phenanthrene	ND	0.050	0.011	ug/l	
129-00-0	Pyrene	ND	0.10	0.0085	ug/l	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	84%	26-121%
321-60-8	2-Fluorobiphenyl	73%	28-107%
1718-51-0	Terphenyl-d14	104%	29-129%

Blank Spike Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42752-BS	W21634.D	1	04/24/15	KD	04/20/15	OP42752	MSW925

The QC reported here applies to the following samples: Method: SW846 8270D

MC38105-1, MC38105-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	50	13.6	27	10-73
95-57-8	2-Chlorophenol	50	43.1	86	47-106
59-50-7	4-Chloro-3-methyl phenol	50	47.2	94	50-111
120-83-2	2,4-Dichlorophenol	50	47.6	95	53-114
105-67-9	2,4-Dimethylphenol	50	43.6	87	23-110
51-28-5	2,4-Dinitrophenol	50	45.7	91	10-156
534-52-1	4,6-Dinitro-o-cresol	50	55.0	110	17-159
95-48-7	2-Methylphenol	50	37.8	76	40-92
	3&4-Methylphenol	100	75.1	75	38-86
88-75-5	2-Nitrophenol	50	50.0	100	53-115
100-02-7	4-Nitrophenol	50	21.1	42	10-83
87-86-5	Pentachlorophenol	50	42.7	85	41-122
108-95-2	Phenol	50	20.8	42	15-55
95-95-4	2,4,5-Trichlorophenol	50	50.6	101	52-120
88-06-2	2,4,6-Trichlorophenol	50	51.1	102	53-119
62-53-3	Aniline	50	33.3	67	26-87
101-55-3	4-Bromophenyl phenyl ether	50	51.4	103	65-127
85-68-7	Butyl benzyl phthalate	50	49.9	100	68-128
100-51-6	Benzyl Alcohol	50	41.2	82	13-108
91-58-7	2-Chloronaphthalene	50	49.6	99	58-120
106-47-8	4-Chloroaniline	50	44.2	88	48-106
111-91-1	bis(2-Chloroethoxy)methane	50	46.4	93	42-118
111-44-4	bis(2-Chloroethyl)ether	50	43.1	86	35-123
108-60-1	bis(2-Chloroisopropyl)ether	50	47.2	94	37-160
7005-72-3	4-Chlorophenyl phenyl ether	50	50.4	101	57-121
122-66-7	1,2-Diphenylhydrazine	50	49.1	98	54-128
121-14-2	2,4-Dinitrotoluene	50	55.0	110	64-127
606-20-2	2,6-Dinitrotoluene	50	51.5	103	55-135
91-94-1	3,3'-Dichlorobenzidine	50	55.9	112	49-141
132-64-9	Dibenzofuran	50	49.1	98	60-107
84-74-2	Di-n-butyl phthalate	50	48.3	97	68-117
117-84-0	Di-n-octyl phthalate	50	50.5	101	60-139
84-66-2	Diethyl phthalate	50	50.5	101	51-127
131-11-3	Dimethyl phthalate	50	50.6	101	22-147
117-81-7	bis(2-Ethylhexyl)phthalate	50	51.5	103	69-133
118-74-1	Hexachlorobenzene	50	52.3	105	62-131

* = Outside of Control Limits.

7.2.1

7

Blank Spike Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42752-BS	W21634.D	1	04/24/15	KD	04/20/15	OP42752	MSW925

The QC reported here applies to the following samples: Method: SW846 8270D

MC38105-1, MC38105-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	17.4	35	10-74
67-72-1	Hexachloroethane	50	37.2	74	15-104
78-59-1	Isophorone	50	40.7	81	44-110
88-74-4	2-Nitroaniline	50	53.6	107	63-123
99-09-2	3-Nitroaniline	50	46.0	92	63-112
100-01-6	4-Nitroaniline	50	51.8	104	58-114
98-95-3	Nitrobenzene	50	44.8	90	37-130
62-75-9	n-Nitrosodimethylamine	50	33.6	67	18-80
621-64-7	N-Nitroso-di-n-propylamine	50	43.4	87	44-128
86-30-6	N-Nitrosodiphenylamine	50	44.6	89	62-107
110-86-1	Pyridine	50	27.7	55	10-77

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	56%	10-79%
4165-62-2	Phenol-d5	39%	10-72%
118-79-6	2,4,6-Tribromophenol	104%	35-138%
4165-60-0	Nitrobenzene-d5	91%	30-116%
321-60-8	2-Fluorobiphenyl	86%	35-107%
1718-51-0	Terphenyl-d14	102%	43-135%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42753-BS	I95320.D	1	04/27/15	MR	04/20/15	OP42753	MSI3566

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC38105-1, MC38105-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	43.8	88	45-116
208-96-8	Acenaphthylene	50	41.0	82	34-110
120-12-7	Anthracene	50	45.7	91	50-117
56-55-3	Benzo(a)anthracene	50	53.7	107	55-139
50-32-8	Benzo(a)pyrene	50	55.5	111	48-131
205-99-2	Benzo(b)fluoranthene	50	53.3	107	49-141
191-24-2	Benzo(g,h,i)perylene	50	54.9	110	60-130
207-08-9	Benzo(k)fluoranthene	50	46.7	93	49-133
218-01-9	Chrysene	50	49.2	98	52-128
53-70-3	Dibenzo(a,h)anthracene	50	54.4	109	60-136
206-44-0	Fluoranthene	50	47.9	96	46-132
86-73-7	Fluorene	50	45.3	91	53-120
193-39-5	Indeno(1,2,3-cd)pyrene	50	55.9	112	57-134
90-12-0	1-Methylnaphthalene	50	42.3	85	41-105
91-57-6	2-Methylnaphthalene	50	42.8	86	36-111
85-01-8	Phenanthrene	50	44.2	88	50-120
129-00-0	Pyrene	50	47.6	95	48-127

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	94%	26-121%
321-60-8	2-Fluorobiphenyl	80%	28-107%
1718-51-0	Terphenyl-d14	105%	29-129%

* = Outside of Control Limits.

7.2.2

7

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42752-MS	W21635.D	1	04/24/15	KD	04/20/15	OP42752	MSW925
OP42752-MSD	W21636.D	1	04/24/15	KD	04/20/15	OP42752	MSW925
MC38000-17	W21637.D	1	04/24/15	KD	04/20/15	OP42752	MSW925

The QC reported here applies to the following samples: Method: SW846 8270D

MC38105-1, MC38105-2

CAS No.	Compound	MC38000-17 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		50	13.1	26	50	13.7	27	4	10-76/20
95-57-8	2-Chlorophenol	ND		50	42.6	85	50	43.3	87	2	37-112/20
59-50-7	4-Chloro-3-methyl phenol	ND		50	46.6	93	50	47.7	95	2	43-115/20
120-83-2	2,4-Dichlorophenol	ND		50	46.9	94	50	48.4	97	3	47-119/20
105-67-9	2,4-Dimethylphenol	ND		50	43.0	86	50	44.5	89	3	15-118/20
51-28-5	2,4-Dinitrophenol	ND		50	46.5	93	50	49.2	98	6	10-165/20
534-52-1	4,6-Dinitro-o-cresol	ND		50	54.9	110	50	55.4	111	1	13-165/20
95-48-7	2-Methylphenol	ND		50	37.2	74	50	37.0	74	1	30-99/20
	3&4-Methylphenol	ND		100	73.0	73	100	73.7	74	1	32-89/20
88-75-5	2-Nitrophenol	ND		50	50.2	100	50	50.5	101	1	44-120/20
100-02-7	4-Nitrophenol	ND		50	20.2	40	50	21.0	42	4	10-93/20
87-86-5	Pentachlorophenol	ND		50	42.3	85	50	43.6	87	3	33-131/20
108-95-2	Phenol	ND		50	20.5	41	50	20.8	42	1	15-53/20
95-95-4	2,4,5-Trichlorophenol	ND		50	51.1	102	50	51.9	104	2	45-126/20
88-06-2	2,4,6-Trichlorophenol	ND		50	51.5	103	50	52.3	105	2	45-124/20
62-53-3	Aniline	ND		50	32.9	66	50	33.4	67	2	18-91/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	51.4	103	50	52.0	104	1	57-131/20
85-68-7	Butyl benzyl phthalate	ND		50	49.4	99	50	50.0	100	1	58-135/20
100-51-6	Benzyl Alcohol	ND		50	40.2	80	50	41.0	82	2	10-109/20
91-58-7	2-Chloronaphthalene	ND		50	49.7	99	50	50.7	101	2	51-123/20
106-47-8	4-Chloroaniline	ND		50	43.7	87	50	43.9	88	0	39-109/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	45.5	91	50	46.5	93	2	36-120/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	43.1	86	50	43.6	87	1	30-124/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	46.2	92	50	46.1	92	0	25-171/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	51.0	102	50	51.6	103	1	51-122/20
122-66-7	1,2-Diphenylhydrazine	ND		50	48.9	98	50	50.0	100	2	47-130/20
121-14-2	2,4-Dinitrotoluene	ND		50	54.5	109	50	55.2	110	1	57-131/20
606-20-2	2,6-Dinitrotoluene	ND		50	51.9	104	50	51.5	103	1	52-135/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	57.8	116	50	56.8	114	2	25-157/20
132-64-9	Dibenzofuran	ND		50	48.7	97	50	49.7	99	2	54-110/20
84-74-2	Di-n-butyl phthalate	ND		50	48.1	96	50	48.6	97	1	60-122/20
117-84-0	Di-n-octyl phthalate	ND		50	50.4	101	50	50.5	101	0	54-142/20
84-66-2	Diethyl phthalate	ND		50	50.1	100	50	51.3	103	2	40-132/20
131-11-3	Dimethyl phthalate	ND		50	50.1	100	50	51.1	102	2	13-149/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		50	51.4	103	50	52.1	104	1	59-139/20
118-74-1	Hexachlorobenzene	ND		50	52.3	105	50	52.9	106	1	56-135/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42752-MS	W21635.D	1	04/24/15	KD	04/20/15	OP42752	MSW925
OP42752-MSD	W21636.D	1	04/24/15	KD	04/20/15	OP42752	MSW925
MC38000-17	W21637.D	1	04/24/15	KD	04/20/15	OP42752	MSW925

The QC reported here applies to the following samples: Method: SW846 8270D

MC38105-1, MC38105-2

CAS No.	Compound	MC38000-17 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		50	18.1	36	50	18.6	37	3	10-73/20
67-72-1	Hexachloroethane	ND		50	36.2	72	50	36.0	72	1	13-103/20
78-59-1	Isophorone	ND		50	39.8	80	50	40.6	81	2	41-110/20
88-74-4	2-Nitroaniline	ND		50	53.8	108	50	54.7	109	2	57-126/20
99-09-2	3-Nitroaniline	ND		50	46.6	93	50	45.9	92	2	53-118/20
100-01-6	4-Nitroaniline	ND		50	51.2	102	50	50.8	102	1	50-119/20
98-95-3	Nitrobenzene	ND		50	44.3	89	50	44.6	89	1	35-127/20
62-75-9	n-Nitrosodimethylamine	ND		50	32.8	66	50	33.9	68	3	11-82/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	43.5	87	50	44.3	89	2	39-129/20
86-30-6	N-Nitrosodiphenylamine	ND		50	44.8	90	50	45.3	91	1	55-112/20
110-86-1	Pyridine	ND		50	26.6	53	50	27.3	55	3	15-71/20

CAS No.	Surrogate Recoveries	MS	MSD	MC38000-17 Limits	
367-12-4	2-Fluorophenol	54%	55%	53%	10-79%
4165-62-2	Phenol-d5	38%	38%	37%	10-72%
118-79-6	2,4,6-Tribromophenol	104%	106%	97%	35-138%
4165-60-0	Nitrobenzene-d5	90%	91%	89%	30-116%
321-60-8	2-Fluorobiphenyl	84%	83%	81%	35-107%
1718-51-0	Terphenyl-d14	101%	103%	102%	43-135%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42753-MS	I95321.D	1	04/27/15	MR	04/20/15	OP42753	MSI3566
OP42753-MSD	I95322.D	1	04/27/15	MR	04/20/15	OP42753	MSI3566
MC38000-18	I95323.D	1	04/27/15	MR	04/20/15	OP42753	MSI3566

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC38105-1, MC38105-2

7.3.2

7

CAS No.	Compound	MC38000-18 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	43.8	88	50	44.6	89	2	36-124/20
208-96-8	Acenaphthylene	ND		50	41.4	83	50	42.0	84	1	25-116/20
120-12-7	Anthracene	ND		50	45.1	90	50	45.6	91	1	42-122/20
56-55-3	Benzo(a)anthracene	ND		50	53.3	107	50	54.4	109	2	45-145/20
50-32-8	Benzo(a)pyrene	ND		50	55.4	111	50	55.5	111	0	40-136/20
205-99-2	Benzo(b)fluoranthene	ND		50	50.9	102	50	52.4	105	3	41-148/20
191-24-2	Benzo(g,h,i)perylene	ND		50	54.0	108	50	55.6	111	3	48-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	49.3	99	50	48.0	96	3	45-131/20
218-01-9	Chrysene	ND		50	48.4	97	50	49.5	99	2	41-135/20
53-70-3	Dibenzo(a,h)anthracene	ND		50	53.4	107	50	54.8	110	3	49-144/20
206-44-0	Fluoranthene	ND		50	48.5	97	50	49.6	99	2	38-136/20
86-73-7	Fluorene	ND		50	45.3	91	50	45.5	91	0	43-127/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	54.8	110	50	56.0	112	2	45-142/20
90-12-0	1-Methylnaphthalene	0.036	JB	50	42.0	84	50	42.7	85	2	29-116/20
91-57-6	2-Methylnaphthalene	0.033	JB	50	42.9	86	50	43.8	88	2	27-117/20
85-01-8	Phenanthrene	ND		50	44.0	88	50	45.4	91	3	41-126/20
129-00-0	Pyrene	ND		50	47.5	95	50	49.2	98	4	41-131/20

CAS No.	Surrogate Recoveries	MS	MSD	MC38000-18	Limits
4165-60-0	Nitrobenzene-d5	92%	93%	91%	26-121%
321-60-8	2-Fluorobiphenyl	78%	78%	75%	28-107%
1718-51-0	Terphenyl-d14	105%	107%	105%	29-129%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3566-CC3561	Injection Date:	04/27/15
Lab File ID:	I95318.D	Injection Time:	08:12
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	231243	3.56	480037	4.60	271091	6.12	481464	7.42	346912	10.20	901063	11.62
Upper Limit [a]	462486	4.06	960074	5.10	542182	6.62	962928	7.92	693824	10.70	1802126	12.12
Lower Limit [b]	115622	3.06	240019	4.10	135546	5.62	240732	6.92	173456	9.70	450532	11.12

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP42753-MB	301554	3.57	622942	4.60	356727	6.12	614127	7.43	449985	10.20	1159376	11.63
OP42753-BS	295592	3.57	632966	4.61	357523	6.12	649950	7.44	476524	10.21	1210035	11.64
OP42753-MS	284350	3.57	599903	4.61	335003	6.12	606070	7.43	437021	10.21	1084148	11.63
OP42753-MSD	262036	3.57	555449	4.61	312634	6.12	557155	7.43	397907	10.21	999965	11.63
MC38000-18	279910	3.56	582082	4.60	336474	6.12	580422	7.43	426178	10.20	1086012	11.63
ZZZZZZ	227765	3.57	477852	4.60	276207	6.12	495171	7.43	361429	10.20	921717	11.63
ZZZZZZ	235668	3.57	491965	4.60	284639	6.12	506823	7.43	374009	10.20	942682	11.63
ZZZZZZ	254502	3.57	538729	4.60	314839	6.12	553671	7.43	421080	10.20	1048631	11.63
ZZZZZZ	246830	3.57	512162	4.61	635740[c]	6.14	537319	7.46	410921	10.21	1032702	11.64
MC38105-1	254333	3.57	526384	4.60	301895	6.12	528594	7.43	383723	10.21	937458	11.64
MC38105-2	240148	3.57	512649	4.60	300504	6.12	529551	7.43	422651	10.20	1068299	11.63
ZZZZZZ	259618	3.57	550316	4.60	321460	6.12	560970	7.43	424057	10.20	1050550	11.63
ZZZZZZ	254602	3.57	539692	4.60	310031	6.12	546303	7.43	397690	10.20	977095	11.63
ZZZZZZ	258765	3.57	545408	4.60	315930	6.12	555006	7.43	401839	10.20	989621	11.63
ZZZZZZ	254296	3.57	536609	4.60	310866	6.12	548485	7.43	394279	10.20	970738	11.63
ZZZZZZ	264961	3.57	562041	4.60	320291	6.12	566777	7.43	409296	10.20	999688	11.63
ZZZZZZ	258639	3.57	540253	4.60	309459	6.12	535399	7.43	388944	10.20	953154	11.63
ZZZZZZ	261703	3.57	544957	4.60	314860	6.12	551696	7.43	400102	10.20	986406	11.63
ZZZZZZ	233784	3.56	491194	4.60	280229	6.12	490336	7.43	338969	10.20	822203	11.62
ZZZZZZ	241388	3.57	504777	4.60	288531	6.12	504112	7.43	360978	10.20	880256	11.62

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Outside control limits due to possible matrix interference.Sample result confirmed by reanalysis.

7.4.1

7

Semivolatile Internal Standard Area Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW925-CC902	Injection Date:	04/24/15
Lab File ID:	W21632.D	Injection Time:	08:30
Instrument ID:	GCMSW	Method:	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	299518	5.11	1114413	6.21	643029	7.76	1134565	9.05	1178319	11.59	1151303	13.28
Upper Limit [a]	599036	5.61	2228826	6.71	1286058	8.26	2269130	9.55	2356638	12.09	2302606	13.78
Lower Limit [b]	149759	4.61	557207	5.71	321515	7.26	567283	8.55	589160	11.09	575652	12.78
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP42752-MB	317065	5.10	1188135	6.21	707648	7.76	1230349	9.04	1266153	11.59	1278645	13.27
OP42752-BS	302747	5.10	1131377	6.21	661456	7.76	1154786	9.05	1207833	11.59	1199706	13.28
OP42752-MS	303127	5.11	1137437	6.21	654889	7.76	1139950	9.05	1190544	11.59	1182935	13.27
OP42752-MSD	312104	5.10	1162504	6.21	677697	7.76	1180515	9.05	1229947	11.59	1220663	13.28
MC38000-17	307510	5.10	1148687	6.21	683385	7.76	1183755	9.04	1230256	11.59	1228170	13.27
ZZZZZZ	290513	5.10	1053682	6.21	643962	7.76	1102445	9.04	1141877	11.59	1140668	13.27
ZZZZZZ	294339	5.10	1084646	6.21	651792	7.76	1112627	9.04	1161740	11.59	1164397	13.27
ZZZZZZ	298015	5.10	1109829	6.21	655565	7.76	1124124	9.04	1181579	11.59	1180955	13.27
ZZZZZZ	300800	5.11	1092965	6.22	709903	7.77	1052590	9.06	1132553	11.59	1138522	13.28
MC38105-1	297525	5.10	1104186	6.21	663559	7.76	1115639	9.05	1133570	11.59	1108796	13.28
MC38105-2	321849	5.10	1175777	6.21	706663	7.76	1181533	9.05	1194915	11.59	1134682	13.27

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.4.2

Semivolatile Surrogate Recovery Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8270D Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC38105-1	W21642.D	49	34	105	85	78	98
MC38105-2	W21643.D	49	33	107	80	75	102
OP42752-BS	W21634.D	56	39	104	91	86	102
OP42752-MB	W21633.D	48	35	95	82	79	100
OP42752-MS	W21635.D	54	38	104	90	84	101
OP42752-MSD	W21636.D	55	38	106	91	83	103

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	10-79%
S2 = Phenol-d5	10-72%
S3 = 2,4,6-Tribromophenol	35-138%
S4 = Nitrobenzene-d5	30-116%
S5 = 2-Fluorobiphenyl	35-107%
S6 = Terphenyl-d14	43-135%

Semivolatile Surrogate Recovery Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8270D BY SIM Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC38105-1	I95328.D	85	72	105
MC38105-2	I95329.D	82	69	102
OP42753-BS	I95320.D	94	80	105
OP42753-MB	I95319.D	84	73	104
OP42753-MS	I95321.D	92	78	105
OP42753-MSD	I95322.D	93	78	107

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	26-121%
S2 = 2-Fluorobiphenyl	28-107%
S3 = Terphenyl-d14	29-129%

7.5.2

7

New England ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries

Method Blank Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42754-MB	BB62908.D	1	04/21/15	NK	04/20/15	OP42754	GBB3423

The QC reported here applies to the following samples: Method: SW846 8011

MC38105-1, MC38105-2, MC38105-4

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.0061	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.0061	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	Bromofluorobenzene (S)	122%	60-140%
460-00-4	Bromofluorobenzene (S)	117%	60-140%

8.1.1

Blank Spike Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42754-BS	BB62909.D	1	04/21/15	NK	04/20/15	OP42754	GBB3423

The QC reported here applies to the following samples: Method: SW846 8011

MC38105-1, MC38105-2, MC38105-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.074	104	45-149
106-93-4	1,2-Dibromoethane	0.071	0.069	97	51-149

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	98%	60-140%
460-00-4	Bromofluorobenzene (S)	92%	60-140%

8.2.1

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42754-MS	BB62910.D	1	04/21/15	NK	04/20/15	OP42754	GBB3423
OP42754-MSD	BB62911.D	1	04/21/15	NK	04/20/15	OP42754	GBB3423
MC38000-19	BB62912.D	1	04/21/15	NK	04/20/15	OP42754	GBB3423

The QC reported here applies to the following samples: Method: SW846 8011

MC38105-1, MC38105-2, MC38105-4

CAS No.	Compound	MC38000-19 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	ND		0.071	0.083	117	0.071	0.081	114	2	31-169/30
106-93-4	1,2-Dibromoethane	ND		0.071	0.077	108	0.071	0.073	103	5	34-175/30

CAS No.	Surrogate Recoveries	MS	MSD	MC38000-19	Limits
460-00-4	Bromofluorobenzene (S)	117%	121%	130%	60-140%
460-00-4	Bromofluorobenzene (S)	116%	117%	123%	60-140%

* = Outside of Control Limits.

8.3.1

Volatile Surrogate Recovery Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8011 Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
MC38105-1	BB62919.D	99	107
MC38105-2	BB62920.D	110	121
MC38105-4	BB62921.D	117	122
OP42754-BS	BB62909.D	98	92
OP42754-MB	BB62908.D	122	117
OP42754-MS	BB62910.D	117	116
OP42754-MSD	BB62911.D	121	117

Surrogate Compounds	Recovery Limits
S1 = Bromofluorobenzene (S)	60-140%

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

8.4.1

GC Surrogate Retention Time Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBB3423-CC3423	Injection Date:	04/21/15
Lab File ID:	BB62907A.D	Injection Time:	17:38
Instrument ID:	GCBB	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	6.88	7.24

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP42754-MB	BB62908.D	04/21/15	18:08	6.87	7.23
OP42754-BS	BB62909.D	04/21/15	18:37	6.88	7.24
OP42754-MS	BB62910.D	04/21/15	19:07	6.87	7.23
OP42754-MSD	BB62911.D	04/21/15	19:36	6.87	7.23
MC38000-19	BB62912.D	04/21/15	20:05	6.87	7.24
ZZZZZZ	BB62913.D	04/21/15	20:34	6.87	7.23
ZZZZZZ	BB62914.D	04/21/15	21:03	6.87	7.23
ZZZZZZ	BB62915.D	04/21/15	21:34	6.87	7.23
ZZZZZZ	BB62916.D	04/21/15	22:05	6.87	7.23
ZZZZZZ	BB62917.D	04/21/15	22:35	6.87	7.23

Surrogate Compounds

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.5.1

GC Surrogate Retention Time Summary

Job Number: MC38105
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBB3423-CC3423	Injection Date:	04/21/15
Lab File ID:	BB62918.D	Injection Time:	23:05
Instrument ID:	GCBB	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	6.87	7.23

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
MC38105-1	BB62919.D	04/21/15	23:35	6.87	7.23
MC38105-2	BB62920.D	04/22/15	00:04	6.87	7.23
MC38105-4	BB62921.D	04/22/15	00:34	6.87	7.23
GBB3423-ECC3423	BB62922.D	04/22/15	01:03	6.87	7.23

Surrogate Compounds

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.5.2

Roxana Groundwater Quarterly – 2nd Quarter 2015 Data Review

Laboratory SDG: MC38159

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 5/8/2015

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2014

Sample Identification	Sample Identification
P57-ROX-042015	P58-ROX-042015
P93D-ROX-042015	TB-ROX-042015-HCL
TB-ROX-042015-ST	

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. Samples were diluted due to a high levels of VOCs. These issues are addressed further in the appropriate sections below. Additionally, the initial calibration verification for 2-hexanone and hexachlorocyclopentadiene exceeded 30 percent difference (%D).

The cooler receipt form indicated that one of one cooler was received by the laboratory at a temperature of 1.3°C, which is outside the 4ºC ± 2ºC criteria. Samples were received in good condition; therefore, no qualification of data was required.

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
OP42772-MB	SVOCs	bis(2-Ethylhexyl)phthalate	0.33 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
P93D-ROX-042015	SVOCs	bis(2-Ethylhexyl)phthalate	-	**U**

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

Yes

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

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.

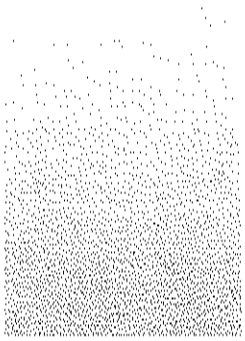
12.0 Additional Qualifications

Were additional qualifications applied?

No

New England ACCUTEST LABORATORIES

05/07/15



Technical Report for

Shell Oil

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana,

Accutest Job Number: MC38159

Sampling Date: 04/20/15

Report to:

AECOM, INC.

Melissa.mansker@urs.com

ATTN: Melissa Mansker

Reviewed 5/8/15

Total number of pages in report: 77

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Reza Tand
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

Table of Contents

Sections: 1 2 3 4 5 6 7 8

Section 1: Sample Summary **3**
Section 2: Case Narrative/Conformance Summary **4**
Section 3: Summary of Hits 6
Section 4: Sample Results **8**
4.1: MC38159-1: P57-ROX-042015 9
4.2: MC38159-2: P58-ROX-042015 16
4.3: MC38159-3: P93D-ROX-042015 23
4.4: MC38159-4: TB-ROX-042015-HCL 30
4.5: MC38159-5: TB-ROX-042015-ST 33
Section 5: Misc. Forms **34**
5.1: Chain of Custody 35
5.2: Sample Tracking Chronicle 37
5.3: Internal Chain of Custody 38
Section 6: GC/MS Volatiles - QC Data Summaries **40**
6.1: Method Blank Summary 41
6.2: Blank Spike Summary 45
6.3: Matrix Spike/Matrix Spike Duplicate Summary 49
6.4: Internal Standard Area Summaries 53
6.5: Surrogate Recovery Summaries 55
Section 7: GC/MS Semi-volatiles - QC Data Summaries **56**
7.1: Method Blank Summary 57
7.2: Blank Spike Summary 60
7.3: Matrix Spike/Matrix Spike Duplicate Summary 63
7.4: Internal Standard Area Summaries 66
7.5: Surrogate Recovery Summaries 70
Section 8: GC Volatiles - QC Data Summaries **72**
8.1: Method Blank Summary 73
8.2: Blank Spike Summary 74
8.3: Matrix Spike/Matrix Spike Duplicate Summary 75
8.4: Surrogate Recovery Summaries 76
8.5: GC Surrogate Retention Time Summaries 77

Sample Summary

Shell Oil

Job No: MC38159

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
MC38159-1	04/20/15	11:05	DCMJ	04/21/15	AQ	Ground Water	P57-ROX-042015
MC38159-2	04/20/15	13:30	DCMJ	04/21/15	AQ	Ground Water	P58-ROX-042015
MC38159-3	04/20/15	16:35	DCMJ	04/21/15	AQ	Ground Water	P93D-ROX-042015
MC38159-4	04/20/15	00:00	DCMJ	04/21/15	AQ	Trip Blank Water	TB-ROX-042015-HCL
MC38159-5	04/20/15	00:00	DCMJ	04/21/15	AQ	Trip Blank Water	TB-ROX-042015-ST

ACCUTEST LABORATORIES

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	MC38159
Site:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central	**Report Date**	5/6/2015 10:47:08 AM

3 Sample(s) and 2 Trip Blank(s) were collected on 04/20/2015 and were received at Accutest on 04/21/2015 properly preserved, at 1.3 Deg. C and intact. These Samples received an Accutest job number of MC38159. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report. 1-Chlorohexane, Benzenethiol, Dibenz(a,h)acridine, Indene, and Quinoline were searched in the library search and reported only if detections were found.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix AQ **Batch ID:** MSV1391

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC38128-2MS, MC38128-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- MC38128-2MS/MSD Recovery(s) for 2-Chloroethyl vinyl ether are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Initial calibration verification standard MSV1332-ICV1332 for 2-hexanone exceed 30% Difference (response bias high). Associated samples are non-detect for this compound.

Matrix AQ **Batch ID:** MSV1392

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC38222-8MS, MC38222-8MSD were used as the QC samples indicated.

Extractables by GCMS By Method SW846 8270D

Matrix AQ **Batch ID:** OP42772

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC38000-27MS, MC38000-27MSD were used as the QC samples indicated.
- Initial calibration verification MSW902-ICV902, file W21009 for Hexachlorocyclopentadiene exceed 30% Difference. Hexachlorocyclopentadiene is within criteria in continuing calibration check standard MSW932-CC902.
- Sample(s) MC38159-3 have compound(s) reported with a "B" qualifier, indicating analyte is found in the associated method blank.
- Matrix Spike Duplicate Recovery(s) for Dibenzofuran are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.

Extractables by GCMS By Method SW846 8270D BY SIM

Matrix AQ **Batch ID:** OP42773

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC38000-28MS, MC38000-28MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8011

Matrix AQ	Batch ID: OP42812

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC38200-2MS, MC38200-2MSD were used as the QC samples indicated.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC38159).

Summary of Hits

Job Number: MC38159
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Collected: 04/20/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC38159-1	P57-ROX-042015					
Benzene		134000	1000	540	ug/l	SW846 8260C
Ethylbenzene		487	50	12	ug/l	SW846 8260C
Isopropylbenzene		24.6 J	250	13	ug/l	SW846 8260C
n-Propylbenzene		46.8 J	250	15	ug/l	SW846 8260C
Toluene		37.6 J	50	15	ug/l	SW846 8260C
1,2,4-Trimethylbenzene		305	250	14	ug/l	SW846 8260C
1,3,5-Trimethylbenzene		32.3 J	250	10	ug/l	SW846 8260C
m,p-Xylene		140	50	23	ug/l	SW846 8260C
o-Xylene		14.1 J	50	11	ug/l	SW846 8260C
Xylene (total)		154	50	11	ug/l	SW846 8260C
Phenol		164	5.2	0.33	ug/l	SW846 8270D
Dibenzofuran		1.1 J	2.1	0.25	ug/l	SW846 8270D
Di-n-butyl phthalate		0.37 J	5.2	0.28	ug/l	SW846 8270D
Acenaphthene		0.54	0.10	0.0077	ug/l	SW846 8270D BY SIM
Acenaphthylene		0.12	0.10	0.0087	ug/l	SW846 8270D BY SIM
Anthracene		0.090 J	0.10	0.010	ug/l	SW846 8270D BY SIM
Fluorene		0.89	0.10	0.016	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		31.2	2.1	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		45.0	2.1	0.011	ug/l	SW846 8270D BY SIM
Phenanthrene		0.70	0.052	0.011	ug/l	SW846 8270D BY SIM
Pyrene		0.021 J	0.10	0.0088	ug/l	SW846 8270D BY SIM
MC38159-2	P58-ROX-042015					
Benzene		325000	1000	540	ug/l	SW846 8260C
n-Butylbenzene		8.7 J	50	5.0	ug/l	SW846 8260C
sec-Butylbenzene		9.4 J	50	5.0	ug/l	SW846 8260C
tert-Butylbenzene		24.2 J	50	5.7	ug/l	SW846 8260C
Ethylbenzene		810	10	2.4	ug/l	SW846 8260C
Isopropylbenzene		57.5	50	2.7	ug/l	SW846 8260C
p-Isopropyltoluene		5.1 J	50	3.2	ug/l	SW846 8260C
Naphthalene		120	50	20	ug/l	SW846 8260C
n-Propylbenzene		76.2	50	2.9	ug/l	SW846 8260C
Toluene		101	10	2.9	ug/l	SW846 8260C
1,2,4-Trimethylbenzene		549	50	2.9	ug/l	SW846 8260C
1,3,5-Trimethylbenzene		69.1	50	2.0	ug/l	SW846 8260C
m,p-Xylene		433	10	4.7	ug/l	SW846 8260C
o-Xylene		52.5	10	2.2	ug/l	SW846 8260C
Xylene (total)		486	10	2.2	ug/l	SW846 8260C
3&4-Methylphenol		4.7 J	10	0.46	ug/l	SW846 8270D
Phenol		112	5.2	0.33	ug/l	SW846 8270D
Dibenzofuran		2.0 J	2.1	0.25	ug/l	SW846 8270D
Di-n-butyl phthalate		0.28 J	5.2	0.28	ug/l	SW846 8270D

Summary of Hits

Job Number: MC38159
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Collected: 04/20/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Acenaphthene		0.64	0.10	0.0077	ug/l	SW846 8270D BY SIM
Acenaphthylene		0.17	0.10	0.0087	ug/l	SW846 8270D BY SIM
Anthracene		0.077 J	0.10	0.010	ug/l	SW846 8270D BY SIM
Benzo(a)anthracene		0.052	0.052	0.024	ug/l	SW846 8270D BY SIM
Benzo(a)pyrene		0.063 J	0.10	0.016	ug/l	SW846 8270D BY SIM
Benzo(b)fluoranthene		0.059	0.052	0.020	ug/l	SW846 8270D BY SIM
Benzo(g,h,i)perylene		0.028 J	0.10	0.013	ug/l	SW846 8270D BY SIM
Benzo(k)fluoranthene		0.016 J	0.10	0.010	ug/l	SW846 8270D BY SIM
Chrysene		0.095 J	0.10	0.014	ug/l	SW846 8270D BY SIM
Fluoranthene		0.048 J	0.10	0.0076	ug/l	SW846 8270D BY SIM
Fluorene		1.2	0.10	0.016	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		44.4	2.1	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		56.3	2.1	0.011	ug/l	SW846 8270D BY SIM
Phenanthrene		0.75	0.052	0.011	ug/l	SW846 8270D BY SIM
Pyrene		0.19	0.10	0.0088	ug/l	SW846 8270D BY SIM
MC38159-3	P93D-ROX-042015					
Benzene		131000	1000	540	ug/l	SW846 8260C
Phenol		39.5	5.2	0.33	ug/l	SW846 8270D
bis(2-Ethylhexyl)phthalate		~~0.35 JB~~ U	2.1	0.33	ug/l	SW846 8270D
Anthracene		0.017 J	0.10	0.010	ug/l	SW846 8270D BY SIM
Benzo(b)fluoranthene		0.061	0.052	0.020	ug/l	SW846 8270D BY SIM
Benzo(g,h,i)perylene		0.020 J	0.10	0.013	ug/l	SW846 8270D BY SIM
Benzo(k)fluoranthene		0.023 J	0.10	0.010	ug/l	SW846 8270D BY SIM
Chrysene		0.021 J	0.10	0.014	ug/l	SW846 8270D BY SIM
Fluoranthene		0.024 J	0.10	0.0076	ug/l	SW846 8270D BY SIM
Fluorene		0.020 J	0.10	0.016	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		0.12 J	2.1	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		0.16 J	2.1	0.011	ug/l	SW846 8270D BY SIM
Phenanthrene		0.017 J	0.052	0.011	ug/l	SW846 8270D BY SIM
Pyrene		0.021 J	0.10	0.0088	ug/l	SW846 8270D BY SIM

MC38159-4 TB-ROX-042015-HCL

No hits reported in this sample.

MC38159-5 TB-ROX-042015-ST

No hits reported in this sample.

New England ACCUTEST LABORATORIES

4

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	P57-ROX-042015		
Lab Sample ID:	MC38159-1	Date Sampled:	04/20/15
Matrix:	AQ - Ground Water	Date Received:	04/21/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38625.D	50	05/01/15	KD	n/a	n/a	MSV1391
Run #2	V38694.D	2000	05/02/15	KD	n/a	n/a	MSV1392

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	500	100	ug/l	
107-02-8	Acrolein	ND	1300	550	ug/l	
107-13-1	Acrylonitrile	ND	250	110	ug/l	
71-43-2	Benzene	134000 [a]	1000	540	ug/l	
108-86-1	Bromobenzene	ND	250	13	ug/l	
74-97-5	Bromochloromethane	ND	250	18	ug/l	
75-27-4	Bromodichloromethane	ND	50	8.9	ug/l	
75-25-2	Bromoform	ND	50	20	ug/l	
74-83-9	Bromomethane	ND	100	39	ug/l	
78-93-3	2-Butanone (MEK)	ND	250	150	ug/l	
104-51-8	n-Butylbenzene	ND	250	25	ug/l	
135-98-8	sec-Butylbenzene	ND	250	25	ug/l	
98-06-6	tert-Butylbenzene	ND	250	29	ug/l	
75-15-0	Carbon disulfide	ND	250	9.3	ug/l	
56-23-5	Carbon tetrachloride	ND	50	17	ug/l	
108-90-7	Chlorobenzene	ND	50	12	ug/l	
75-00-3	Chloroethane	ND	100	25	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	250	63	ug/l	
67-66-3	Chloroform	ND	50	20	ug/l	
74-87-3	Chloromethane	ND	100	24	ug/l	
95-49-8	o-Chlorotoluene	ND	250	30	ug/l	
106-43-4	p-Chlorotoluene	ND	250	23	ug/l	
124-48-1	Dibromochloromethane	ND	50	11	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	50	12	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	50	12	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	50	19	ug/l	
75-71-8	Dichlorodifluoromethane	ND	100	27	ug/l	
75-34-3	1,1-Dichloroethane	ND	50	14	ug/l	
107-06-2	1,2-Dichloroethane	ND	50	15	ug/l	
75-35-4	1,1-Dichloroethene	ND	50	14	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	50	16	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	50	24	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P57-ROX-042015		
Lab Sample ID:	MC38159-1	Date Sampled:	04/20/15
Matrix:	AQ - Ground Water	Date Received:	04/21/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	100	11	ug/l	
142-28-9	1,3-Dichloropropane	ND	250	14	ug/l	
594-20-7	2,2-Dichloropropane	ND	250	84	ug/l	
563-58-6	1,1-Dichloropropene	ND	250	12	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	25	13	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	25	22	ug/l	
123-91-1	1,4-Dioxane	ND	1300	1000	ug/l	
97-63-2	Ethyl methacrylate	ND	250	25	ug/l	
100-41-4	Ethylbenzene	487	50	12	ug/l	
87-68-3	Hexachlorobutadiene	ND	250	23	ug/l	
591-78-6	2-Hexanone	ND	250	130	ug/l	
98-82-8	Isopropylbenzene	24.6	250	13	ug/l	J
99-87-6	p-Isopropyltoluene	ND	250	16	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	50	17	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	38	ug/l	
74-95-3	Methylene bromide	ND	250	15	ug/l	
75-09-2	Methylene chloride	ND	100	13	ug/l	
91-20-3	Naphthalene	ND	250	100	ug/l	
103-65-1	n-Propylbenzene	46.8	250	15	ug/l	J
100-42-5	Styrene	ND	250	14	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	50	12	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	15	ug/l	
127-18-4	Tetrachloroethene	ND	50	10	ug/l	
108-88-3	Toluene	37.6	50	15	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	ND	250	39	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	250	37	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	50	21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	50	16	ug/l	
79-01-6	Trichloroethene	ND	50	12	ug/l	
75-69-4	Trichlorofluoromethane	ND	50	24	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	250	20	ug/l	
95-63-6	1,2,4-Trimethylbenzene	305	250	14	ug/l	
108-67-8	1,3,5-Trimethylbenzene	32.3	250	10	ug/l	J
108-05-4	Vinyl Acetate	ND	250	72	ug/l	
75-01-4	Vinyl chloride	ND	50	23	ug/l	
	m,p-Xylene	140	50	23	ug/l	
95-47-6	o-Xylene	14.1	50	11	ug/l	J
1330-20-7	Xylene (total)	154	50	11	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P57-ROX-042015		
Lab Sample ID:	MC38159-1	Date Sampled:	04/20/15
Matrix:	AQ - Ground Water	Date Received:	04/21/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%	117%	72-133%
2037-26-5	Toluene-D8	99%	101%	85-114%
460-00-4	4-Bromofluorobenzene	98%	103%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P57-ROX-042015		
Lab Sample ID:	MC38159-1	Date Sampled:	04/20/15
Matrix:	AQ - Ground Water	Date Received:	04/21/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21840.D	1	05/05/15	KD	04/22/15	OP42772	MSW932
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.2	0.30	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.52	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.48	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.35	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.61	ug/l	
95-48-7	2-Methylphenol	ND	10	0.31	ug/l	
	3&4-Methylphenol	ND	10	0.46	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.48	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.36	ug/l	
108-95-2	Phenol	164	5.2	0.33	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.47	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.46	ug/l	
62-53-3	Aniline	ND	10	0.47	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	0.25	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.33	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.2	0.35	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.37	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	0.51	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	0.43	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	0.43	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	0.27	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.2	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.38	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.39	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	0.55	ug/l	
132-64-9	Dibenzofuran	1.1	2.1	0.25	ug/l	J
84-74-2	Di-n-butyl phthalate	0.37	5.2	0.28	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.2	0.30	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P57-ROX-042015		
Lab Sample ID:	MC38159-1	Date Sampled:	04/20/15
Matrix:	AQ - Ground Water	Date Received:	04/21/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.2	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	5.2	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.33	ug/l	
118-74-1	Hexachlorobenzene	ND	5.2	0.25	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.2	0.29	ug/l	
78-59-1	Isophorone	ND	5.2	0.48	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.37	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.42	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.53	ug/l	
98-95-3	Nitrobenzene	ND	5.2	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	0.26	ug/l	
110-86-1	Pyridine	ND	10	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	46%		10-79%
4165-62-2	Phenol-d5	31%		10-72%
118-79-6	2,4,6-Tribromophenol	100%		35-138%
4165-60-0	Nitrobenzene-d5	75%		30-116%
321-60-8	2-Fluorobiphenyl	79%		35-107%
1718-51-0	Terphenyl-d14	93%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P57-ROX-042015		
Lab Sample ID:	MC38159-1	Date Sampled:	04/20/15
Matrix:	AQ - Ground Water	Date Received:	04/21/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95458.D	1	05/04/15	KD	04/22/15	OP42773	MSI3571
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.54	0.10	0.0077	ug/l	
208-96-8	Acenaphthylene	0.12	0.10	0.0087	ug/l	
120-12-7	Anthracene	0.090	0.10	0.010	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.052	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.052	0.020	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.0076	ug/l	
86-73-7	Fluorene	0.89	0.10	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.021	ug/l	
90-12-0	1-Methylnaphthalene	31.2	2.1	0.013	ug/l	
91-57-6	2-Methylnaphthalene	45.0	2.1	0.011	ug/l	
85-01-8	Phenanthrene	0.70	0.052	0.011	ug/l	
129-00-0	Pyrene	0.021	0.10	0.0088	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	76%		26-121%
321-60-8	2-Fluorobiphenyl	73%		28-107%
1718-51-0	Terphenyl-d14	93%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P57-ROX-042015		
Lab Sample ID:	MC38159-1	Date Sampled:	04/20/15
Matrix:	AQ - Ground Water	Date Received:	04/21/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62962.D	1	04/28/15	NK	04/24/15	OP42812	GBB3425
Run #2							

	Initial Volume	Final Volume
Run #1	40.4 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.013	0.0053	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.013	0.0053	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	65%		60-140%
460-00-4	Bromofluorobenzene (S)	101%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P58-ROX-042015		
Lab Sample ID:	MC38159-2	Date Sampled:	04/20/15
Matrix:	AQ - Ground Water	Date Received:	04/21/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38626.D	10	05/01/15	KD	n/a	n/a	MSV1391
Run #2	V38695.D	2000	05/02/15	KD	n/a	n/a	MSV1392

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	100	20	ug/l	
107-02-8	Acrolein	ND	250	110	ug/l	
107-13-1	Acrylonitrile	ND	50	23	ug/l	
71-43-2	Benzene	325000 [a]	1000	540	ug/l	
108-86-1	Bromobenzene	ND	50	2.6	ug/l	
74-97-5	Bromochloromethane	ND	50	3.7	ug/l	
75-27-4	Bromodichloromethane	ND	10	1.8	ug/l	
75-25-2	Bromoform	ND	10	3.9	ug/l	
74-83-9	Bromomethane	ND	20	7.9	ug/l	
78-93-3	2-Butanone (MEK)	ND	50	30	ug/l	
104-51-8	n-Butylbenzene	8.7	50	5.0	ug/l	J
135-98-8	sec-Butylbenzene	9.4	50	5.0	ug/l	J
98-06-6	tert-Butylbenzene	24.2	50	5.7	ug/l	J
75-15-0	Carbon disulfide	ND	50	1.9	ug/l	
56-23-5	Carbon tetrachloride	ND	10	3.4	ug/l	
108-90-7	Chlorobenzene	ND	10	2.4	ug/l	
75-00-3	Chloroethane	ND	20	4.9	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	50	13	ug/l	
67-66-3	Chloroform	ND	10	4.0	ug/l	
74-87-3	Chloromethane	ND	20	4.9	ug/l	
95-49-8	o-Chlorotoluene	ND	50	6.0	ug/l	
106-43-4	p-Chlorotoluene	ND	50	4.6	ug/l	
124-48-1	Dibromochloromethane	ND	10	2.2	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	10	2.4	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	10	2.4	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	10	3.7	ug/l	
75-71-8	Dichlorodifluoromethane	ND	20	5.3	ug/l	
75-34-3	1,1-Dichloroethane	ND	10	2.8	ug/l	
107-06-2	1,2-Dichloroethane	ND	10	3.1	ug/l	
75-35-4	1,1-Dichloroethene	ND	10	2.8	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	10	3.1	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	10	4.8	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P58-ROX-042015		
Lab Sample ID:	MC38159-2	Date Sampled:	04/20/15
Matrix:	AQ - Ground Water	Date Received:	04/21/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	20	2.1	ug/l	
142-28-9	1,3-Dichloropropane	ND	50	2.9	ug/l	
594-20-7	2,2-Dichloropropane	ND	50	17	ug/l	
563-58-6	1,1-Dichloropropene	ND	50	2.3	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	2.7	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	4.3	ug/l	
123-91-1	1,4-Dioxane	ND	250	200	ug/l	
97-63-2	Ethyl methacrylate	ND	50	5.0	ug/l	
100-41-4	Ethylbenzene	810	10	2.4	ug/l	
87-68-3	Hexachlorobutadiene	ND	50	4.5	ug/l	
591-78-6	2-Hexanone	ND	50	27	ug/l	
98-82-8	Isopropylbenzene	57.5	50	2.7	ug/l	
99-87-6	p-Isopropyltoluene	5.1	50	3.2	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	10	3.5	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	50	7.7	ug/l	
74-95-3	Methylene bromide	ND	50	3.0	ug/l	
75-09-2	Methylene chloride	ND	20	2.7	ug/l	
91-20-3	Naphthalene	120	50	20	ug/l	
103-65-1	n-Propylbenzene	76.2	50	2.9	ug/l	
100-42-5	Styrene	ND	50	2.8	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	10	2.5	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	2.9	ug/l	
127-18-4	Tetrachloroethene	ND	10	2.1	ug/l	
108-88-3	Toluene	101	10	2.9	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	50	7.8	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	50	7.4	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	10	4.2	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	10	3.2	ug/l	
79-01-6	Trichloroethene	ND	10	2.5	ug/l	
75-69-4	Trichlorofluoromethane	ND	10	4.7	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	50	3.9	ug/l	
95-63-6	1,2,4-Trimethylbenzene	549	50	2.9	ug/l	
108-67-8	1,3,5-Trimethylbenzene	69.1	50	2.0	ug/l	
108-05-4	Vinyl Acetate	ND	50	14	ug/l	
75-01-4	Vinyl chloride	ND	10	4.5	ug/l	
	m,p-Xylene	433	10	4.7	ug/l	
95-47-6	o-Xylene	52.5	10	2.2	ug/l	
1330-20-7	Xylene (total)	486	10	2.2	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P58-ROX-042015		
Lab Sample ID:	MC38159-2	Date Sampled:	04/20/15
Matrix:	AQ - Ground Water	Date Received:	04/21/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%	120%	72-133%
2037-26-5	Toluene-D8	95%	100%	85-114%
460-00-4	4-Bromofluorobenzene	101%	103%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P58-ROX-042015		
Lab Sample ID:	MC38159-2	Date Sampled:	04/20/15
Matrix:	AQ - Ground Water	Date Received:	04/21/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21841.D	1	05/05/15	KD	04/22/15	OP42772	MSW932
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.2	0.30	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.52	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.48	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.35	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.61	ug/l	
95-48-7	2-Methylphenol	ND	10	0.31	ug/l	
	3&4-Methylphenol	4.7	10	0.46	ug/l	J
88-75-5	2-Nitrophenol	ND	10	0.48	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.36	ug/l	
108-95-2	Phenol	112	5.2	0.33	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.47	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.46	ug/l	
62-53-3	Aniline	ND	10	0.47	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	0.25	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.33	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.2	0.35	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.37	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	0.51	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	0.43	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	0.43	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	0.27	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.2	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.38	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.39	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	0.55	ug/l	
132-64-9	Dibenzofuran	2.0	2.1	0.25	ug/l	J
84-74-2	Di-n-butyl phthalate	0.28	5.2	0.28	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.2	0.30	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P58-ROX-042015		
Lab Sample ID:	MC38159-2	Date Sampled:	04/20/15
Matrix:	AQ - Ground Water	Date Received:	04/21/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.2	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	5.2	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.33	ug/l	
118-74-1	Hexachlorobenzene	ND	5.2	0.25	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.2	0.29	ug/l	
78-59-1	Isophorone	ND	5.2	0.48	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.37	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.42	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.53	ug/l	
98-95-3	Nitrobenzene	ND	5.2	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	0.26	ug/l	
110-86-1	Pyridine	ND	10	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	47%		10-79%
4165-62-2	Phenol-d5	33%		10-72%
118-79-6	2,4,6-Tribromophenol	105%		35-138%
4165-60-0	Nitrobenzene-d5	85%		30-116%
321-60-8	2-Fluorobiphenyl	83%		35-107%
1718-51-0	Terphenyl-d14	97%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P58-ROX-042015		
Lab Sample ID:	MC38159-2	Date Sampled:	04/20/15
Matrix:	AQ - Ground Water	Date Received:	04/21/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95432.D	1	05/02/15	KD	04/22/15	OP42773	MSI3570
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.64	0.10	0.0077	ug/l	
208-96-8	Acenaphthylene	0.17	0.10	0.0087	ug/l	
120-12-7	Anthracene	0.077	0.10	0.010	ug/l	J
56-55-3	Benzo(a)anthracene	0.052	0.052	0.024	ug/l	
50-32-8	Benzo(a)pyrene	0.063	0.10	0.016	ug/l	J
205-99-2	Benzo(b)fluoranthene	0.059	0.052	0.020	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.028	0.10	0.013	ug/l	J
207-08-9	Benzo(k)fluoranthene	0.016	0.10	0.010	ug/l	J
218-01-9	Chrysene	0.095	0.10	0.014	ug/l	J
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	0.048	0.10	0.0076	ug/l	J
86-73-7	Fluorene	1.2	0.10	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.021	ug/l	
90-12-0	1-Methylnaphthalene	44.4	2.1	0.013	ug/l	
91-57-6	2-Methylnaphthalene	56.3	2.1	0.011	ug/l	
85-01-8	Phenanthrene	0.75	0.052	0.011	ug/l	
129-00-0	Pyrene	0.19	0.10	0.0088	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	80%		26-121%
321-60-8	2-Fluorobiphenyl	74%		28-107%
1718-51-0	Terphenyl-d14	95%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P58-ROX-042015		
Lab Sample ID:	MC38159-2	Date Sampled:	04/20/15
Matrix:	AQ - Ground Water	Date Received:	04/21/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62963.D	1	04/28/15	NK	04/24/15	OP42812	GBB3425
Run #2							

	Initial Volume	Final Volume
Run #1	31.9 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.016	0.0067	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.016	0.0067	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	75%		60-140%
460-00-4	Bromofluorobenzene (S)	115%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93D-ROX-042015		
Lab Sample ID:	MC38159-3	Date Sampled:	04/20/15
Matrix:	AQ - Ground Water	Date Received:	04/21/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38623.D	100	05/01/15	KD	n/a	n/a	MSV1391
Run #2	V38696.D	2000	05/02/15	KD	n/a	n/a	MSV1392

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	1000	200	ug/l	
107-02-8	Acrolein	ND	2500	1100	ug/l	
107-13-1	Acrylonitrile	ND	500	230	ug/l	
71-43-2	Benzene	131000 [a]	1000	540	ug/l	
108-86-1	Bromobenzene	ND	500	26	ug/l	
74-97-5	Bromochloromethane	ND	500	37	ug/l	
75-27-4	Bromodichloromethane	ND	100	18	ug/l	
75-25-2	Bromoform	ND	100	39	ug/l	
74-83-9	Bromomethane	ND	200	79	ug/l	
78-93-3	2-Butanone (MEK)	ND	500	300	ug/l	
104-51-8	n-Butylbenzene	ND	500	50	ug/l	
135-98-8	sec-Butylbenzene	ND	500	50	ug/l	
98-06-6	tert-Butylbenzene	ND	500	57	ug/l	
75-15-0	Carbon disulfide	ND	500	19	ug/l	
56-23-5	Carbon tetrachloride	ND	100	34	ug/l	
108-90-7	Chlorobenzene	ND	100	24	ug/l	
75-00-3	Chloroethane	ND	200	49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	500	130	ug/l	
67-66-3	Chloroform	ND	100	40	ug/l	
74-87-3	Chloromethane	ND	200	49	ug/l	
95-49-8	o-Chlorotoluene	ND	500	60	ug/l	
106-43-4	p-Chlorotoluene	ND	500	46	ug/l	
124-48-1	Dibromochloromethane	ND	100	22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	100	24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	100	24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	100	37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	200	53	ug/l	
75-34-3	1,1-Dichloroethane	ND	100	28	ug/l	
107-06-2	1,2-Dichloroethane	ND	100	31	ug/l	
75-35-4	1,1-Dichloroethene	ND	100	28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	100	31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	100	48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93D-ROX-042015		
Lab Sample ID:	MC38159-3	Date Sampled:	04/20/15
Matrix:	AQ - Ground Water	Date Received:	04/21/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	200	21	ug/l	
142-28-9	1,3-Dichloropropane	ND	500	29	ug/l	
594-20-7	2,2-Dichloropropane	ND	500	170	ug/l	
563-58-6	1,1-Dichloropropene	ND	500	23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	50	27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	50	43	ug/l	
123-91-1	1,4-Dioxane	ND	2500	2000	ug/l	
97-63-2	Ethyl methacrylate	ND	500	50	ug/l	
100-41-4	Ethylbenzene	ND	100	24	ug/l	
87-68-3	Hexachlorobutadiene	ND	500	45	ug/l	
591-78-6	2-Hexanone	ND	500	270	ug/l	
98-82-8	Isopropylbenzene	ND	500	27	ug/l	
99-87-6	p-Isopropyltoluene	ND	500	32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	100	35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	500	77	ug/l	
74-95-3	Methylene bromide	ND	500	30	ug/l	
75-09-2	Methylene chloride	ND	200	27	ug/l	
91-20-3	Naphthalene	ND	500	200	ug/l	
103-65-1	n-Propylbenzene	ND	500	29	ug/l	
100-42-5	Styrene	ND	500	28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	100	25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	29	ug/l	
127-18-4	Tetrachloroethene	ND	100	21	ug/l	
108-88-3	Toluene	ND	100	29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	500	78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	500	74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	100	42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	100	32	ug/l	
79-01-6	Trichloroethene	ND	100	25	ug/l	
75-69-4	Trichlorofluoromethane	ND	100	47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	500	39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	500	29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	500	20	ug/l	
108-05-4	Vinyl Acetate	ND	500	140	ug/l	
75-01-4	Vinyl chloride	ND	100	45	ug/l	
	m,p-Xylene	ND	100	47	ug/l	
95-47-6	o-Xylene	ND	100	22	ug/l	
1330-20-7	Xylene (total)	ND	100	22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93D-ROX-042015		
Lab Sample ID:	MC38159-3	Date Sampled:	04/20/15
Matrix:	AQ - Ground Water	Date Received:	04/21/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	118%	123%	72-133%
2037-26-5	Toluene-D8	100%	101%	85-114%
460-00-4	4-Bromofluorobenzene	102%	104%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93D-ROX-042015		
Lab Sample ID:	MC38159-3	Date Sampled:	04/20/15
Matrix:	AQ - Ground Water	Date Received:	04/21/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21842.D	1	05/05/15	KD	04/22/15	OP42772	MSW932
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.2	0.30	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.52	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.48	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.35	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.61	ug/l	
95-48-7	2-Methylphenol	ND	10	0.31	ug/l	
	3&4-Methylphenol	ND	10	0.46	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.48	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.36	ug/l	
108-95-2	Phenol	39.5	5.2	0.33	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.47	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.46	ug/l	
62-53-3	Aniline	ND	10	0.47	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	0.25	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.33	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.2	0.35	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.37	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	0.51	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	0.43	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	0.43	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	0.27	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.2	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.38	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.39	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	0.55	ug/l	
132-64-9	Dibenzofuran	ND	2.1	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.2	0.28	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.2	0.30	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93D-ROX-042015		
Lab Sample ID:	MC38159-3	Date Sampled:	04/20/15
Matrix:	AQ - Ground Water	Date Received:	04/21/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.2	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	5.2	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	0.35 U	2.1	0.33	ug/l	JB U
118-74-1	Hexachlorobenzene	ND	5.2	0.25	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.2	0.29	ug/l	
78-59-1	Isophorone	ND	5.2	0.48	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.37	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.42	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.53	ug/l	
98-95-3	Nitrobenzene	ND	5.2	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	0.26	ug/l	
110-86-1	Pyridine	ND	10	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	46%		10-79%
4165-62-2	Phenol-d5	34%		10-72%
118-79-6	2,4,6-Tribromophenol	99%		35-138%
4165-60-0	Nitrobenzene-d5	80%		30-116%
321-60-8	2-Fluorobiphenyl	83%		35-107%
1718-51-0	Terphenyl-d14	94%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93D-ROX-042015		
Lab Sample ID:	MC38159-3	Date Sampled:	04/20/15
Matrix:	AQ - Ground Water	Date Received:	04/21/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95433.D	1	05/02/15	KD	04/22/15	OP42773	MSI3570
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.0077	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.0087	ug/l	
120-12-7	Anthracene	0.017	0.10	0.010	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.052	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	0.061	0.052	0.020	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.020	0.10	0.013	ug/l	J
207-08-9	Benzo(k)fluoranthene	0.023	0.10	0.010	ug/l	J
218-01-9	Chrysene	0.021	0.10	0.014	ug/l	J
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	0.024	0.10	0.0076	ug/l	J
86-73-7	Fluorene	0.020	0.10	0.016	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.021	ug/l	
90-12-0	1-Methylnaphthalene	0.12	2.1	0.013	ug/l	J
91-57-6	2-Methylnaphthalene	0.16	2.1	0.011	ug/l	J
85-01-8	Phenanthrene	0.017	0.052	0.011	ug/l	J
129-00-0	Pyrene	0.021	0.10	0.0088	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	79%		26-121%
321-60-8	2-Fluorobiphenyl	75%		28-107%
1718-51-0	Terphenyl-d14	89%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93D-ROX-042015		
Lab Sample ID:	MC38159-3	Date Sampled:	04/20/15
Matrix:	AQ - Ground Water	Date Received:	04/21/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62964.D	1	04/28/15	NK	04/24/15	OP42812	GBB3425
Run #2							

	Initial Volume	Final Volume
Run #1	36.4 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0059	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0059	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	75%		60-140%
460-00-4	Bromofluorobenzene (S)	103%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-042015-HCL		
Lab Sample ID:	MC38159-4	Date Sampled:	04/20/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/21/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38617.D	1	05/01/15	KD	n/a	n/a	MSV1391
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-042015-HCL		
Lab Sample ID:	MC38159-4	Date Sampled:	04/20/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/21/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-042015-HCL		
Lab Sample ID:	MC38159-4	Date Sampled:	04/20/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/21/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	122%		72-133%
2037-26-5	Toluene-D8	104%		85-114%
460-00-4	4-Bromofluorobenzene	102%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-042015-ST		
Lab Sample ID:	MC38159-5	Date Sampled:	04/20/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/21/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62965.D	1	04/28/15	NK	04/24/15	OP42812	GBB3425
Run #2							

	Initial Volume	Final Volume
Run #1	37.3 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0057	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0057	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	84%		60-140%
460-00-4	Bromofluorobenzene (S)	105%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

Misc. Forms

05

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

LAB (LOCK

☐XENCO (_____)

☐CALSCIENCE (Address: 4795 Technology Cir W, Denver (Marlborough, MA 01752 (508-481-6200) Lab Vendor #: _____)

☐SPL (Lab Vendor #: _____)

Lab Vendor #

Shell Oil ...oducts Chain Of Custody Record

ECOM

Please Check Appropriate Box:

☑ENV. SERVICES ☐MOTIVA RETAIL ☐SHELL RETAIL

☐MOTIVA SUPPLY ☐CONSULTANT ☐OTHER

☐SHELL PIPELINE ☐OTHER

Print Bill To Contact Name: Bob Billman

PO #:

INCIDENT # (ENV SERVICES): 0 7 2 1 8 5 4 0

SAP #: 3 4 0 0 0 5 1

☐SHOW NO INCIDENT # APPLIES

DATE: 4-20-15

PAGE: 1 of 1

COMPANY: URS CORPORATION

ADDRESS: 1001 HIGHLANDS PLAZA DRIVE, WEST - SUITE 300; ST. LOUIS, MO 63110

PROJECT CONTACT (Name and Phone #): Elisabeth Kunkel, Bob Billman, Lindsay Rathnow

TELEPHONE: 314-429-0100 FAX: 314-429-0402

E-MAIL: bob.billman@aecom.com; elisabeth.kunkel@aecom.com; lindsay.rathnow@aecom.com

SITE ADDRESS: 900 South Central Ave; ROXANA IL

Roxana Quarterly GW / 215831770 03002

SAMPLER(S): DChase / MJohnson

LAB USE ONLY: MC38159

TURNAROUND TIME (CALENDAR DAYS): ☑STANDARD (10 DAY) ☐5 DAYS ☐3 DAYS ☐2 DAYS ☐24 HOURS ☐RESULTS NEEDED ON WEEKEND

☐LA - RWQCB REPORT FORMAT ☐NPDES

DELIVERABLES: ☐LEVEL 1 ☑LEVEL 2 ☐LEVEL 3 ☑LEVEL 4 ☐OTHER (SPECIFY) EDD

TEMPERATURE ON RECEIPT C°: Cooler #1 Cooler #2 Cooler #3

SPECIAL INSTRUCTIONS OR NOTES:
* Please include "J" values on Reports.
* Please provide sample receipt upon login.

☑FIXED CONTRACT RATE APPLIES
☐STATE REIMBURSEMENT RATE APPLIES
☐EDD NOT NEEDED
☑RECEIPT VERIFICATION REQUESTED
☐INVOICE LEVEL DATA

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260 SL+TICS	VOC 8011 SL	SVOC 8270D SL+TICS	PAH 8270LL	FIELD NOTES: Container HG Readings or Laboratory Notes
-1	P57-ROX-042015	4/20/15	1105	water	2			2	2	6	X	X	X	X	TEMPERATURE ON RECEIPT C°: 0.0
-2	P58-ROX-042015		1330		2			2	2	6	X	X	X	X	
-3	P93D-ROX-042015		1635		2			2	2	6	X	X	X	X	
-4	TB-ROX-042015-HCL		0000		2					2	X				
-5	TB-ROX-042015-ST		0000						2	2		X			
															16cc, 4J1

Relinquished by (Signature)	Received by (Signature)	Date	Time
	8016 6 2852 5989 FED EX	4-20-15	1800
Caleb Fox	William Gillie	4/21/15	1700

1.3°C

MC38159: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC38159 **Client:** URS **Project:** 900 SOUTH CENTRAL AVE

Date / Time Received: 4/21/2015 5:00:00 PM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (1.3/1.3):

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	☑ ☐	3. COC Present:	☑ ☐
2. Custody Seals Intact:	☑ ☐	4. Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Thermometer ID:	G1;
3. Cooler media:	Ice (Bag)
4. No. Coolers:	1

Quality Control Preservation	Y or N	N/A
1. Trip Blank present / cooler:	☑ ☐	☐
2. Trip Blank listed on COC:	☑ ☐	☐
3. Samples preserved properly:	☑ ☐	
4. VOCs headspace free:	☑ ☐	☐

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	☑ ☐
2. Container labeling complete:	☑ ☐
3. Sample container label / COC agree:	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	☑ ☐
2. All containers accounted for:	☑ ☐
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear:	☑ ☐	
2. Bottles received for unspecified tests	☐ ☑	
3. Sufficient volume recvd for analysis:	☑ ☐	
4. Compositing instructions clear:	☐ ☐	☑
5. Filtering instructions clear:	☐ ☐	☑

Comments

Accutest Laboratories
V.(508) 481-6200
495 Technology Center West, Bldg One
F: (508) 481-7753
Marlborough, MA 01752
www.accutest.com

5.1

MC38159: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC38159

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

5.2

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC38159-1 Collected: 20-APR-15 11:05 By: DCMJ Received: 21-APR-15 By: P57-ROX-042015						
MC38159-1	SW846 8011	28-APR-15 04:51	NK	24-APR-15	AW	V8011SL
MC38159-1	SW846 8260C	01-MAY-15 06:44	KD			V8260SL+
MC38159-1	SW846 8260C	02-MAY-15 15:34	KD			V8260SL+
MC38159-1	SW846 8270D BY SIM	04-MAY-15 16:48	KD	22-APR-15	FC	B8270SIMSL
MC38159-1	SW846 8270D	05-MAY-15 02:39	KD	22-APR-15	FC	AB8270SL+
MC38159-2 Collected: 20-APR-15 13:30 By: DCMJ Received: 21-APR-15 By: P58-ROX-042015						
MC38159-2	SW846 8011	28-APR-15 05:20	NK	24-APR-15	AW	V8011SL
MC38159-2	SW846 8260C	01-MAY-15 07:13	KD			V8260SL+
MC38159-2	SW846 8260C	02-MAY-15 16:02	KD			V8260SL+
MC38159-2	SW846 8270D BY SIM	02-MAY-15 16:48	KD	22-APR-15	FC	B8270SIMSL
MC38159-2	SW846 8270D	05-MAY-15 03:04	KD	22-APR-15	FC	AB8270SL+
MC38159-3 Collected: 20-APR-15 16:35 By: DCMJ Received: 21-APR-15 By: P93D-ROX-042015						
MC38159-3	SW846 8011	28-APR-15 05:49	NK	24-APR-15	AW	V8011SL
MC38159-3	SW846 8260C	01-MAY-15 05:47	KD			V8260SL+
MC38159-3	SW846 8260C	02-MAY-15 16:31	KD			V8260SL+
MC38159-3	SW846 8270D BY SIM	02-MAY-15 17:12	KD	22-APR-15	FC	B8270SIMSL
MC38159-3	SW846 8270D	05-MAY-15 03:29	KD	22-APR-15	FC	AB8270SL+
MC38159-4 Collected: 20-APR-15 00:00 By: DCMJ Received: 21-APR-15 By: TB-ROX-042015-HCL						
MC38159-4	SW846 8260C	01-MAY-15 02:55	KD			V8260SL+
MC38159-5 Collected: 20-APR-15 00:00 By: DCMJ Received: 21-APR-15 By: TB-ROX-042015-ST						
MC38159-5	SW846 8011	28-APR-15 06:17	NK	24-APR-15	AW	V8011SL

Accutest Internal Chain of Custody

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Received: 04/21/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC38159-1.1	Walk In Ref #22	Alireza Zeighami	04/22/15 13:22	Retrieve from Storage
MC38159-1.1	Alireza Zeighami		04/28/15 07:05	Depleted
MC38159-1.3	VOC Ref #4	Krysten Dufort	04/30/15 15:57	Retrieve from Storage
MC38159-1.3	Krysten Dufort	GCMSV	04/30/15 15:57	Load on Instrument
MC38159-1.3	GCMSV	Krysten Dufort	05/01/15 12:45	Unload from Instrument
MC38159-1.3	Krysten Dufort	VOC Ref #4	05/01/15 12:45	Return to Storage
MC38159-1.4	VOC Ref #4	Krysten Dufort	05/02/15 11:48	Retrieve from Storage
MC38159-1.4	Krysten Dufort	GCMSV	05/02/15 11:48	Load on Instrument
MC38159-1.4	GCMSV	Krysten Dufort	05/04/15 15:30	Unload from Instrument
MC38159-1.4	Krysten Dufort	VOC Ref #4	05/04/15 15:30	Return to Storage
MC38159-1.6	VOC Ref #4	Nicole Estey	04/24/15 14:33	Retrieve from Storage
MC38159-1.6	Nicole Estey		04/27/15 21:48	Depleted
MC38159-2.1	Walk In Ref #22	Alireza Zeighami	04/22/15 13:22	Retrieve from Storage
MC38159-2.1	Alireza Zeighami		04/28/15 07:05	Depleted
MC38159-2.3	VOC Ref #4	Krysten Dufort	05/02/15 11:48	Retrieve from Storage
MC38159-2.3	Krysten Dufort	GCMSV	05/02/15 11:48	Load on Instrument
MC38159-2.3	GCMSV	Krysten Dufort	05/04/15 15:30	Unload from Instrument
MC38159-2.3	Krysten Dufort	VOC Ref #4	05/04/15 15:30	Return to Storage
MC38159-2.4	VOC Ref #4	Krysten Dufort	04/30/15 15:57	Retrieve from Storage
MC38159-2.4	Krysten Dufort	GCMSV	04/30/15 15:57	Load on Instrument
MC38159-2.4	GCMSV	Krysten Dufort	05/01/15 12:45	Unload from Instrument
MC38159-2.4	Krysten Dufort	VOC Ref #4	05/01/15 12:45	Return to Storage
MC38159-2.6	VOC Ref #4	Nicole Estey	04/24/15 14:33	Retrieve from Storage
MC38159-2.6	Nicole Estey		04/27/15 21:48	Depleted
MC38159-3.1	Walk In Ref #22	Alireza Zeighami	04/22/15 13:22	Retrieve from Storage
MC38159-3.1	Alireza Zeighami		04/28/15 07:05	Depleted
MC38159-3.3	VOC Ref #4	Krysten Dufort	04/30/15 15:57	Retrieve from Storage
MC38159-3.3	Krysten Dufort	GCMSV	04/30/15 15:57	Load on Instrument
MC38159-3.3	GCMSV	Krysten Dufort	05/01/15 12:45	Unload from Instrument
MC38159-3.3	Krysten Dufort	VOC Ref #4	05/01/15 12:45	Return to Storage
MC38159-3.4	VOC Ref #4	Krysten Dufort	05/02/15 11:48	Retrieve from Storage
MC38159-3.4	Krysten Dufort	GCMSV	05/02/15 11:48	Load on Instrument
MC38159-3.4	GCMSV	Krysten Dufort	05/04/15 15:30	Unload from Instrument
MC38159-3.4	Krysten Dufort	VOC Ref #4	05/04/15 15:30	Return to Storage

Accutest Internal Chain of Custody

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Received: 04/21/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC38159-3.5	VOC Ref #4	Nicole Estey	04/24/15 14:33	Retrieve from Storage
MC38159-3.5	Nicole Estey		04/27/15 21:48	Depleted
MC38159-4.1	VOC Ref #4	Krysten Dufort	04/30/15 15:57	Retrieve from Storage
MC38159-4.1	Krysten Dufort	GCMSV	04/30/15 15:57	Load on Instrument
MC38159-4.1	GCMSV	Krysten Dufort	05/01/15 12:45	Unload from Instrument
MC38159-4.1	Krysten Dufort	VOC Ref #4	05/01/15 12:45	Return to Storage
MC38159-5.1	VOC Ref #4	Nicole Estey	04/24/15 14:33	Retrieve from Storage
MC38159-5.1	Nicole Estey		04/27/15 21:48	Depleted

5.3

New England ACCUTEST LABORATORIES

GC/MS Volatiles

6

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1391-MB	V38614.D	1	05/01/15	KD	n/a	n/a	MSV1391

The QC reported here applies to the following samples: Method: SW846 8260C

MC38159-1, MC38159-2, MC38159-3, MC38159-4

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	

Method Blank Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1391-MB	V38614.D	1	05/01/15	KD	n/a	n/a	MSV1391

The QC reported here applies to the following samples: Method: SW846 8260C

MC38159-1, MC38159-2, MC38159-3, MC38159-4

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

Method Blank Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1391-MB	V38614.D	1	05/01/15	KD	n/a	n/a	MSV1391

The QC reported here applies to the following samples: Method: SW846 8260C

MC38159-1, MC38159-2, MC38159-3, MC38159-4

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	115%	72-133%
2037-26-5	Toluene-D8	101%	85-114%
460-00-4	4-Bromofluorobenzene	100%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

6.1.1

Method Blank Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1392-MB	V38687.D	1	05/02/15	KD	n/a	n/a	MSV1392

The QC reported here applies to the following samples: Method: SW846 8260C

MC38159-1, MC38159-2, MC38159-3

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.27	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	124%	72-133%
2037-26-5	Toluene-D8	102%	85-114%
460-00-4	4-Bromofluorobenzene	99%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

6.1.2

Blank Spike Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1391-BS	V38611.D	1	05/01/15	KD	n/a	n/a	MSV1391

The QC reported here applies to the following samples: Method: SW846 8260C

MC38159-1, MC38159-2, MC38159-3, MC38159-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	52.9	106	14-172
107-02-8	Acrolein	250	212	85	10-168
107-13-1	Acrylonitrile	50	43.1	86	41-158
71-43-2	Benzene	50	42.7	85	68-127
108-86-1	Bromobenzene	50	50.9	102	74-124
74-97-5	Bromochloromethane	50	42.2	84	68-135
75-27-4	Bromodichloromethane	50	55.5	111	72-144
75-25-2	Bromoform	50	42.5	85	59-147
74-83-9	Bromomethane	50	56.0	112	34-175
78-93-3	2-Butanone (MEK)	50	44.7	89	43-147
104-51-8	n-Butylbenzene	50	53.0	106	77-136
135-98-8	sec-Butylbenzene	50	53.3	107	75-134
98-06-6	tert-Butylbenzene	50	53.7	107	74-132
75-15-0	Carbon disulfide	50	31.9	64	34-171
56-23-5	Carbon tetrachloride	50	51.5	103	55-153
108-90-7	Chlorobenzene	50	49.0	98	71-123
75-00-3	Chloroethane	50	49.4	99	58-175
110-75-8	2-Chloroethyl vinyl ether	50	39.4	79	44-169
67-66-3	Chloroform	50	49.9	100	67-136
74-87-3	Chloromethane	50	51.6	103	25-182
95-49-8	o-Chlorotoluene	50	52.8	106	72-130
106-43-4	p-Chlorotoluene	50	53.2	106	73-127
124-48-1	Dibromochloromethane	50	45.3	91	73-139
95-50-1	1,2-Dichlorobenzene	50	48.1	96	77-125
541-73-1	1,3-Dichlorobenzene	50	49.6	99	77-124
106-46-7	1,4-Dichlorobenzene	50	48.3	97	73-128
75-71-8	Dichlorodifluoromethane	50	65.0	130	23-157
75-34-3	1,1-Dichloroethane	50	44.3	89	63-145
107-06-2	1,2-Dichloroethane	50	52.3	105	58-145
75-35-4	1,1-Dichloroethene	50	36.8	74	56-158
156-59-2	cis-1,2-Dichloroethene	50	41.8	84	67-133
156-60-5	trans-1,2-Dichloroethene	50	39.1	78	66-136
78-87-5	1,2-Dichloropropane	50	50.3	101	75-133
142-28-9	1,3-Dichloropropane	50	47.3	95	70-127
594-20-7	2,2-Dichloropropane	50	41.1	82	52-163
563-58-6	1,1-Dichloropropene	50	46.0	92	77-140

* = Outside of Control Limits.

6.2.1

Blank Spike Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1391-BS	V38611.D	1	05/01/15	KD	n/a	n/a	MSV1391

The QC reported here applies to the following samples: Method: SW846 8260C

MC38159-1, MC38159-2, MC38159-3, MC38159-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-01-5	cis-1,3-Dichloropropene	50	45.6	91	74-141
10061-02-6	trans-1,3-Dichloropropene	50	47.5	95	77-143
123-91-1	1,4-Dioxane	250	171	68	30-182
97-63-2	Ethyl methacrylate	50	45.8	92	64-131
100-41-4	Ethylbenzene	50	52.5	105	71-129
87-68-3	Hexachlorobutadiene	50	47.0	94	64-146
591-78-6	2-Hexanone	50	42.6	85	22-163
98-82-8	Isopropylbenzene	50	54.2	108	72-133
99-87-6	p-Isopropyltoluene	50	52.8	106	77-134
1634-04-4	Methyl Tert Butyl Ether	50	45.7	91	46-151
108-10-1	4-Methyl-2-pentanone (MIBK)	50	45.2	90	47-145
74-95-3	Methylene bromide	50	49.8	100	70-132
75-09-2	Methylene chloride	50	38.0	76	55-146
91-20-3	Naphthalene	50	35.4	71	39-176
103-65-1	n-Propylbenzene	50	56.1	112	74-134
100-42-5	Styrene	50	50.3	101	71-134
630-20-6	1,1,1,2-Tetrachloroethane	50	47.6	95	70-137
79-34-5	1,1,2,2-Tetrachloroethane	50	48.0	96	58-145
127-18-4	Tetrachloroethene	50	49.0	98	63-137
108-88-3	Toluene	50	49.2	98	75-126
87-61-6	1,2,3-Trichlorobenzene	50	39.0	78	27-181
120-82-1	1,2,4-Trichlorobenzene	50	41.8	84	40-176
71-55-6	1,1,1-Trichloroethane	50	47.7	95	68-144
79-00-5	1,1,2-Trichloroethane	50	52.1	104	72-133
79-01-6	Trichloroethene	50	48.3	97	73-126
75-69-4	Trichlorofluoromethane	50	65.9	132	43-152
96-18-4	1,2,3-Trichloropropane	50	43.1	86	58-141
95-63-6	1,2,4-Trimethylbenzene	50	54.0	108	76-129
108-67-8	1,3,5-Trimethylbenzene	50	53.9	108	71-127
108-05-4	Vinyl Acetate	50	47.2	94	10-170
75-01-4	Vinyl chloride	50	49.9	100	36-167
	m,p-Xylene	100	102	102	68-130
95-47-6	o-Xylene	50	50.6	101	69-126
1330-20-7	Xylene (total)	150	153	102	67-129

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1391-BS	V38611.D	1	05/01/15	KD	n/a	n/a	MSV1391

The QC reported here applies to the following samples: Method: SW846 8260C

MC38159-1, MC38159-2, MC38159-3, MC38159-4

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	105%	72-133%
2037-26-5	Toluene-D8	104%	85-114%
460-00-4	4-Bromofluorobenzene	105%	70-134%

6.2.1

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1392-BS	V38685.D	1	05/02/15	KD	n/a	n/a	MSV1392

6.2.2

The QC reported here applies to the following samples: Method: SW846 8260C

MC38159-1, MC38159-2, MC38159-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	44.6	89	68-127

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	106%	72-133%
2037-26-5	Toluene-D8	106%	85-114%
460-00-4	4-Bromofluorobenzene	106%	70-134%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC38128-2MS	V38632.D	5	05/01/15	KD	n/a	n/a	MSV1391
MC38128-2MSD	V38633.D	5	05/01/15	KD	n/a	n/a	MSV1391
MC38128-2	V38618.D	1	05/01/15	KD	n/a	n/a	MSV1391

The QC reported here applies to the following samples: Method: SW846 8260C

MC38159-1, MC38159-2, MC38159-3, MC38159-4

CAS No.	Compound	MC38128-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250	148	59	250	146	58	1	10-135/30
107-02-8	Acrolein	ND		1250	911	73	1250	909	73	0	10-175/30
107-13-1	Acrylonitrile	ND		250	205	82	250	213	85	4	37-163/30
71-43-2	Benzene	ND		250	236	94	250	236	94	0	61-138/30
108-86-1	Bromobenzene	ND		250	261	104	250	266	106	2	71-126/30
74-97-5	Bromochloromethane	ND		250	212	85	250	213	85	0	70-136/30
75-27-4	Bromodichloromethane	ND		250	252	101	250	264	106	5	73-146/30
75-25-2	Bromoform	ND		250	182	73	250	194	78	6	54-147/30
74-83-9	Bromomethane	ND		250	249	100	250	248	99	0	20-171/30
78-93-3	2-Butanone (MEK)	ND		250	169	68	250	176	70	4	33-127/30
104-51-8	n-Butylbenzene	ND		250	247	99	250	255	102	3	69-138/30
135-98-8	sec-Butylbenzene	ND		250	260	104	250	268	107	3	71-137/30
98-06-6	tert-Butylbenzene	ND		250	262	105	250	271	108	3	68-137/30
75-15-0	Carbon disulfide	ND		250	143	57	250	146	58	2	29-178/30
56-23-5	Carbon tetrachloride	ND		250	232	93	250	243	97	5	57-155/30
108-90-7	Chlorobenzene	ND		250	247	99	250	256	102	4	69-126/30
75-00-3	Chloroethane	ND		250	219	88	250	222	89	1	57-182/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	ND	0* a	250	ND	0* a	nc	10-200/30
67-66-3	Chloroform	ND		250	244	98	250	248	99	2	66-142/30
74-87-3	Chloromethane	ND		250	232	93	250	214	86	8	18-182/30
95-49-8	o-Chlorotoluene	ND		250	260	104	250	264	106	2	60-145/30
106-43-4	p-Chlorotoluene	ND		250	259	104	250	267	107	3	64-138/30
124-48-1	Dibromochloromethane	ND		250	204	82	250	215	86	5	71-138/30
95-50-1	1,2-Dichlorobenzene	ND		250	238	95	250	243	97	2	75-125/30
541-73-1	1,3-Dichlorobenzene	ND		250	247	99	250	253	101	2	74-125/30
106-46-7	1,4-Dichlorobenzene	ND		250	240	96	250	247	99	3	72-128/30
75-71-8	Dichlorodifluoromethane	ND		250	309	124	250	315	126	2	23-159/30
75-34-3	1,1-Dichloroethane	ND		250	222	89	250	227	91	2	63-150/30
107-06-2	1,2-Dichloroethane	ND		250	252	101	250	259	104	3	57-150/30
75-35-4	1,1-Dichloroethene	ND		250	178	71	250	179	72	1	53-165/30
156-59-2	cis-1,2-Dichloroethene	ND		250	211	84	250	215	86	2	66-138/30
156-60-5	trans-1,2-Dichloroethene	ND		250	197	79	250	199	80	1	65-141/30
78-87-5	1,2-Dichloropropane	ND		250	251	100	250	257	103	2	76-136/30
142-28-9	1,3-Dichloropropane	ND		250	237	95	250	241	96	2	71-127/30
594-20-7	2,2-Dichloropropane	ND		250	147	59	250	150	60	2	33-175/30
563-58-6	1,1-Dichloropropene	ND		250	225	90	250	236	94	5	76-145/30

* = Outside of Control Limits.

6.3.1

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC38128-2MS	V38632.D	5	05/01/15	KD	n/a	n/a	MSV1391
MC38128-2MSD	V38633.D	5	05/01/15	KD	n/a	n/a	MSV1391
MC38128-2	V38618.D	1	05/01/15	KD	n/a	n/a	MSV1391

The QC reported here applies to the following samples: Method: SW846 8260C

MC38159-1, MC38159-2, MC38159-3, MC38159-4

CAS No.	Compound	MC38128-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		250	210	84	250	218	87	4	75-137/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	217	87	250	231	92	6	77-139/30
123-91-1	1,4-Dioxane	ND		1250	817	65	1250	989	79	19	29-167/30
97-63-2	Ethyl methacrylate	ND		250	230	92	250	239	96	4	60-135/30
100-41-4	Ethylbenzene	ND		250	261	104	250	270	108	3	61-137/30
87-68-3	Hexachlorobutadiene	ND		250	221	88	250	235	94	6	59-141/30
591-78-6	2-Hexanone	ND		250	169	68	250	174	70	3	12-141/30
98-82-8	Isopropylbenzene	ND		250	271	108	250	278	111	3	64-141/30
99-87-6	p-Isopropyltoluene	ND		250	256	102	250	265	106	3	73-135/30
1634-04-4	Methyl Tert Butyl Ether	ND		250	239	96	250	242	97	1	34-160/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	222	89	250	230	92	4	47-143/30
74-95-3	Methylene bromide	ND		250	239	96	250	247	99	3	73-132/30
75-09-2	Methylene chloride	ND		250	189	76	250	189	76	0	52-154/30
91-20-3	Naphthalene	ND		250	176	70	250	184	74	4	21-185/30
103-65-1	n-Propylbenzene	ND		250	271	108	250	281	112	4	66-141/30
100-42-5	Styrene	ND		250	248	99	250	254	102	2	60-142/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	228	91	250	238	95	4	69-138/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	237	95	250	239	96	1	58-147/30
127-18-4	Tetrachloroethene	ND		250	247	99	250	255	102	3	60-140/30
108-88-3	Toluene	ND		250	245	98	250	254	102	4	74-131/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	190	76	250	203	81	7	12-184/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	204	82	250	213	85	4	30-175/30
71-55-6	1,1,1-Trichloroethane	ND		250	229	92	250	235	94	3	67-151/30
79-00-5	1,1,2-Trichloroethane	ND		250	253	101	250	259	104	2	73-134/30
79-01-6	Trichloroethene	ND		250	236	94	250	244	98	3	68-133/30
75-69-4	Trichlorofluoromethane	ND		250	285	114	250	287	115	1	40-159/30
96-18-4	1,2,3-Trichloropropane	ND		250	206	82	250	209	84	1	54-141/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	263	105	250	268	107	2	62-142/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	262	105	250	268	107	2	62-133/30
108-05-4	Vinyl Acetate	ND		250	223	89	250	226	90	1	10-169/30
75-01-4	Vinyl chloride	ND		250	231	92	250	221	88	4	29-176/30
	m,p-Xylene	ND		500	508	102	500	521	104	3	58-139/30
95-47-6	o-Xylene	ND		250	253	101	250	263	105	4	61-135/30
1330-20-7	Xylene (total)	ND		750	761	101	750	784	105	3	60-136/30

* = Outside of Control Limits.

6.3.1

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC38128-2MS	V38632.D	5	05/01/15	KD	n/a	n/a	MSV1391
MC38128-2MSD	V38633.D	5	05/01/15	KD	n/a	n/a	MSV1391
MC38128-2	V38618.D	1	05/01/15	KD	n/a	n/a	MSV1391

The QC reported here applies to the following samples: Method: SW846 8260C

MC38159-1, MC38159-2, MC38159-3, MC38159-4

CAS No.	Surrogate Recoveries	MS	MSD	MC38128-2	Limits
1868-53-7	Dibromofluoromethane	102%	100%	126%	72-133%
2037-26-5	Toluene-D8	103%	103%	103%	85-114%
460-00-4	4-Bromofluorobenzene	105%	106%	100%	70-134%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

6.3.1

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC38222-8MS	V38706.D	1	05/02/15	KD	n/a	n/a	MSV1392
MC38222-8MSD	V38707.D	1	05/02/15	KD	n/a	n/a	MSV1392
MC38222-8	V38698.D	1	05/02/15	KD	n/a	n/a	MSV1392

The QC reported here applies to the following samples: Method: SW846 8260C

MC38159-1, MC38159-2, MC38159-3

CAS No.	Compound	MC38222-8 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		50	43.1	86	50	43.3	87	0	61-138/30

CAS No.	Surrogate Recoveries	MS	MSD	MC38222-8	Limits
1868-53-7	Dibromofluoromethane	108%	107%	126%	72-133%
2037-26-5	Toluene-D8	107%	107%	103%	85-114%
460-00-4	4-Bromofluorobenzene	103%	103%	102%	70-134%

* = Outside of Control Limits.

6.3.2

Volatile Internal Standard Area Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSV1391-CC1332	Injection Date:	05/01/15
Lab File ID:	V38611.D	Injection Time:	00:04
Instrument ID:	GCMSV	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	384101	6.54	604420	7.73	309209	11.07	329368	13.29	60868	3.51
Upper Limit [a]	768202	7.04	1208840	8.23	618418	11.57	658736	13.79	121736	4.01
Lower Limit [b]	192051	6.04	302210	7.23	154605	10.57	164684	12.79	30434	3.01
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV1391-BS	384101	6.54	604420	7.73	309209	11.07	329368	13.29	60868	3.51
MSV1391-MB	319168	6.55	531421	7.73	279382	11.08	297167	13.29	57267	3.51
ZZZZZZ	315817	6.54	535522	7.73	283777	11.07	287392	13.29	55752	3.50
ZZZZZZ	291526	6.55	495154	7.73	260884	11.08	272758	13.29	49313	3.51
MC38159-4	281903	6.54	483440	7.73	261407	11.08	269358	13.29	50675	3.50
MC38128-2	280773	6.55	479854	7.73	256549	11.08	267621	13.29	47994	3.51
ZZZZZZ	320297	6.55	489146	7.73	260453	11.08	289965	13.29	56170	3.51
ZZZZZZ	315198	6.55	523186	7.73	276051	11.07	298194	13.29	53828	3.51
ZZZZZZ	323077	6.55	529734	7.73	277032	11.08	309003	13.29	55240	3.51
MC38159-3	312500	6.54	549908	7.73	280904	11.07	287410	13.29	52184	3.50
MC38159-1	321995	6.54	532794	7.73	264153	11.07	287166	13.29	49630	3.51
MC38159-2	371500	6.55	598710	7.73	278098	11.07	298579	13.29	59435	3.51
ZZZZZZ	386875	6.59	654843	7.75	291905	11.07	333913	13.29	59589	3.53
MC38128-2MS	437471	6.54	688985	7.73	348032	11.07	369197	13.29	69726	3.50
MC38128-2MSD	430776	6.54	672910	7.73	340948	11.07	363742	13.29	69925	3.50

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

6.4.1

Volatile Internal Standard Area Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSV1392-CC1332	Injection Date:	05/02/15
Lab File ID:	V38685.D	Injection Time:	11:17
Instrument ID:	GCMSV	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	343673	6.54	535253	7.73	283589	11.07	298826	13.29	51308	3.50
Upper Limit [a]	687346	7.04	1070506	8.23	567178	11.57	597652	13.79	102616	4.00
Lower Limit [b]	171837	6.04	267627	7.23	141795	10.57	149413	12.79	25654	3.00
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV1392-BS	343673	6.54	535253	7.73	283589	11.07	298826	13.29	51308	3.50
MSV1392-MB	270975	6.55	456893	7.73	245909	11.07	256272	13.29	47017	3.51
ZZZZZZ	254234	6.55	439962	7.73	239662	11.08	245113	13.29	44336	3.51
ZZZZZZ	254324	6.54	438430	7.73	246741	11.07	245803	13.29	39390	3.50
ZZZZZZ	293817	6.55	472530	7.73	261753	11.08	274447	13.29	43710	3.51
ZZZZZZ	290204	6.55	491252	7.73	258259	11.08	260962	13.29	51122	3.51
ZZZZZZ	336807	6.54	496284	7.73	268105	11.08	266782	13.29	48699	3.51
ZZZZZZ	359728	6.55	547573	7.73	291569	11.08	304262	13.29	62483	3.51
MC38159-1	303628	6.55	510679	7.73	265234	11.08	271139	13.29	54547	3.51
MC38159-2	300082	6.55	512950	7.73	265368	11.08	272529	13.29	54736	3.51
MC38159-3	282425	6.55	493422	7.73	260314	11.08	261486	13.29	52257	3.51
ZZZZZZ	256756	6.55	438355	7.73	240273	11.08	250435	13.29	48614	3.51
MC38222-8	265732	6.55	458778	7.74	248018	11.08	255591	13.29	48102	3.52
ZZZZZZ	263816	6.54	458660	7.73	253551	11.08	259623	13.29	47400	3.50
ZZZZZZ	253325	6.55	437265	7.73	243603	11.08	254500	13.29	44053	3.51
ZZZZZZ	280298	6.55	485880	7.73	270591	11.08	275058	13.29	44048	3.51
ZZZZZZ	244738	6.54	425341	7.73	239353	11.08	238312	13.29	39521	3.50
ZZZZZZ	251924	6.54	433467	7.73	244648	11.08	249931	13.29	43745	3.51
ZZZZZZ	248063	6.55	421122	7.73	233322	11.07	242863	13.29	46554	3.51
ZZZZZZ	248588	6.55	427724	7.73	235754	11.08	242772	13.29	39688	3.51
MC38222-8MS	314321	6.54	485974	7.73	256226	11.07	286309	13.29	43366	3.51
MC38222-8MSD	324449	6.54	505178	7.73	266873	11.07	294846	13.29	49063	3.51
ZZZZZZ	278494	6.54	468146	7.73	249877	11.07	263260	13.29	45380	3.51
ZZZZZZ	276760	6.54	476733	7.73	262233	11.07	265118	13.29	45914	3.50

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

6.4.2

Volatile Surrogate Recovery Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8260C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC38159-1	V38694.D	117	101	103
MC38159-1	V38625.D	110	99	98
MC38159-2	V38626.D	109	95	101
MC38159-2	V38695.D	120	100	103
MC38159-3	V38696.D	123	101	104
MC38159-3	V38623.D	118	100	102
MC38159-4	V38617.D	122	104	102
MC38128-2MS	V38632.D	102	103	105
MC38128-2MSD	V38633.D	100	103	106
MC38222-8MS	V38706.D	108	107	103
MC38222-8MSD	V38707.D	107	107	103
MSV1391-BS	V38611.D	105	104	105
MSV1391-MB	V38614.D	115	101	100
MSV1392-BS	V38685.D	106	106	106
MSV1392-MB	V38687.D	124	102	99

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	72-133%
S2 = Toluene-D8	85-114%
S3 = 4-Bromofluorobenzene	70-134%

6.5.1

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42772-MB	W21835.D	1	05/05/15	KD	04/22/15	OP42772	MSW932

The QC reported here applies to the following samples: Method: SW846 8270D

MC38159-1, MC38159-2, MC38159-3

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.5	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.29	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.51	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.47	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.34	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.59	ug/l	
95-48-7	2-Methylphenol	ND	10	0.30	ug/l	
	3&4-Methylphenol	ND	10	0.44	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.47	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.35	ug/l	
108-95-2	Phenol	ND	5.0	0.32	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.45	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.45	ug/l	
62-53-3	Aniline	ND	10	0.46	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.25	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.24	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.32	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.34	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.49	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.42	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.42	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.26	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.37	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.38	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.53	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.27	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	0.29	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.27	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.24	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	0.33	2.0	0.32	ug/l	J
118-74-1	Hexachlorobenzene	ND	5.0	0.24	ug/l	

Method Blank Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42772-MB	W21835.D	1	05/05/15	KD	04/22/15	OP42772	MSW932

The QC reported here applies to the following samples: Method: SW846 8270D

MC38159-1, MC38159-2, MC38159-3

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.28	ug/l	
78-59-1	Isophorone	ND	5.0	0.47	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.36	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.40	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.51	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.48	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.25	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.25	ug/l	
110-86-1	Pyridine	ND	10	0.36	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	49%	10-79%
4165-62-2	Phenol-d5	39%	10-72%
118-79-6	2,4,6-Tribromophenol	90%	35-138%
4165-60-0	Nitrobenzene-d5	76%	30-116%
321-60-8	2-Fluorobiphenyl	78%	35-107%
1718-51-0	Terphenyl-d14	92%	43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

Method Blank Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42773-MB	I95426.D	1	05/02/15	KD	04/22/15	OP42773	MSI3570

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC38159-1, MC38159-2, MC38159-3

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.0075	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.0084	ug/l	
120-12-7	Anthracene	ND	0.10	0.0098	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.015	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.019	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.013	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.0074	ug/l	
86-73-7	Fluorene	ND	0.10	0.015	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.020	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	0.012	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	0.011	ug/l	
85-01-8	Phenanthrene	ND	0.050	0.011	ug/l	
129-00-0	Pyrene	ND	0.10	0.0085	ug/l	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	74%	26-121%
321-60-8	2-Fluorobiphenyl	71%	28-107%
1718-51-0	Terphenyl-d14	89%	29-129%

Blank Spike Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42772-BS	W21836.D	1	05/05/15	KD	04/22/15	OP42772	MSW932

The QC reported here applies to the following samples: Method: SW846 8270D

MC38159-1, MC38159-2, MC38159-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	50	16.1	32	10-73
95-57-8	2-Chlorophenol	50	36.6	73	47-106
59-50-7	4-Chloro-3-methyl phenol	50	41.0	82	50-111
120-83-2	2,4-Dichlorophenol	50	40.7	81	53-114
105-67-9	2,4-Dimethylphenol	50	30.8	62	23-110
51-28-5	2,4-Dinitrophenol	50	18.7	37	10-156
534-52-1	4,6-Dinitro-o-cresol	50	25.2	50	17-159
95-48-7	2-Methylphenol	50	32.5	65	40-92
	3&4-Methylphenol	100	66.1	66	38-86
88-75-5	2-Nitrophenol	50	41.2	82	53-115
100-02-7	4-Nitrophenol	50	22.0	44	10-83
87-86-5	Pentachlorophenol	50	39.3	79	41-122
108-95-2	Phenol	50	19.2	38	15-55
95-95-4	2,4,5-Trichlorophenol	50	45.2	90	52-120
88-06-2	2,4,6-Trichlorophenol	50	45.6	91	53-119
62-53-3	Aniline	50	26.7	53	26-87
101-55-3	4-Bromophenyl phenyl ether	50	54.1	108	65-127
85-68-7	Butyl benzyl phthalate	50	52.6	105	68-128
100-51-6	Benzyl Alcohol	50	42.5	85	13-108
91-58-7	2-Chloronaphthalene	50	52.1	104	58-120
106-47-8	4-Chloroaniline	50	43.4	87	48-106
111-91-1	bis(2-Chloroethoxy)methane	50	46.4	93	42-118
111-44-4	bis(2-Chloroethyl)ether	50	41.7	83	35-123
108-60-1	bis(2-Chloroisopropyl)ether	50	46.2	92	37-160
7005-72-3	4-Chlorophenyl phenyl ether	50	53.0	106	57-121
122-66-7	1,2-Diphenylhydrazine	50	49.2	98	54-128
121-14-2	2,4-Dinitrotoluene	50	56.8	114	64-127
606-20-2	2,6-Dinitrotoluene	50	55.2	110	55-135
91-94-1	3,3'-Dichlorobenzidine	50	42.6	85	49-141
132-64-9	Dibenzofuran	50	51.3	103	60-107
84-74-2	Di-n-butyl phthalate	50	50.6	101	68-117
117-84-0	Di-n-octyl phthalate	50	53.3	107	60-139
84-66-2	Diethyl phthalate	50	53.3	107	51-127
131-11-3	Dimethyl phthalate	50	53.4	107	22-147
117-81-7	bis(2-Ethylhexyl)phthalate	50	55.1	110	69-133
118-74-1	Hexachlorobenzene	50	54.4	109	62-131

* = Outside of Control Limits.

7.2.1

7

Blank Spike Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42772-BS	W21836.D	1	05/05/15	KD	04/22/15	OP42772	MSW932

The QC reported here applies to the following samples: Method: SW846 8270D

MC38159-1, MC38159-2, MC38159-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	10.1	20	10-74
67-72-1	Hexachloroethane	50	40.5	81	15-104
78-59-1	Isophorone	50	41.2	82	44-110
88-74-4	2-Nitroaniline	50	57.6	115	63-123
99-09-2	3-Nitroaniline	50	51.0	102	63-112
100-01-6	4-Nitroaniline	50	52.2	104	58-114
98-95-3	Nitrobenzene	50	43.5	87	37-130
62-75-9	n-Nitrosodimethylamine	50	35.5	71	18-80
621-64-7	N-Nitroso-di-n-propylamine	50	44.3	89	44-128
86-30-6	N-Nitrosodiphenylamine	50	47.0	94	62-107
110-86-1	Pyridine	50	19.6	39	10-77

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	52%	10-79%
4165-62-2	Phenol-d5	41%	10-72%
118-79-6	2,4,6-Tribromophenol	93%	35-138%
4165-60-0	Nitrobenzene-d5	79%	30-116%
321-60-8	2-Fluorobiphenyl	83%	35-107%
1718-51-0	Terphenyl-d14	92%	43-135%

* = Outside of Control Limits.

7.2.1

7

Blank Spike Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42773-BS	I95427.D	1	05/02/15	KD	04/22/15	OP42773	MSI3570

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC38159-1, MC38159-2, MC38159-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	46.1	92	45-116
208-96-8	Acenaphthylene	50	43.5	87	34-110
120-12-7	Anthracene	50	46.5	93	50-117
56-55-3	Benzo(a)anthracene	50	54.6	109	55-139
50-32-8	Benzo(a)pyrene	50	57.0	114	48-131
205-99-2	Benzo(b)fluoranthene	50	49.3	99	49-141
191-24-2	Benzo(g,h,i)perylene	50	59.7	119	60-130
207-08-9	Benzo(k)fluoranthene	50	53.9	108	49-133
218-01-9	Chrysene	50	49.9	100	52-128
53-70-3	Dibenzo(a,h)anthracene	50	58.0	116	60-136
206-44-0	Fluoranthene	50	47.6	95	46-132
86-73-7	Fluorene	50	49.1	98	53-120
193-39-5	Indeno(1,2,3-cd)pyrene	50	59.7	119	57-134
90-12-0	1-Methylnaphthalene	50	45.1	90	41-105
91-57-6	2-Methylnaphthalene	50	45.9	92	36-111
85-01-8	Phenanthrene	50	46.2	92	50-120
129-00-0	Pyrene	50	47.1	94	48-127

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	79%	26-121%
321-60-8	2-Fluorobiphenyl	74%	28-107%
1718-51-0	Terphenyl-d14	88%	29-129%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42772-MS	W21837.D	1	05/05/15	KD	04/22/15	OP42772	MSW932
OP42772-MSD	W21838.D	1	05/05/15	KD	04/22/15	OP42772	MSW932
MC38000-27	W21839.D	1	05/05/15	KD	04/22/15	OP42772	MSW932

The QC reported here applies to the following samples: Method: SW846 8270D

MC38159-1, MC38159-2, MC38159-3

CAS No.	Compound	MC38000-27 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		50	15.6	31	50	16.9	34	8	10-76/20
95-57-8	2-Chlorophenol	ND		50	37.1	74	50	36.2	72	2	37-112/20
59-50-7	4-Chloro-3-methyl phenol	ND		50	41.6	83	50	43.4	87	4	43-115/20
120-83-2	2,4-Dichlorophenol	ND		50	41.8	84	50	42.9	86	3	47-119/20
105-67-9	2,4-Dimethylphenol	ND		50	32.5	65	50	32.6	65	0	15-118/20
51-28-5	2,4-Dinitrophenol	ND		50	21.6	43	50	24.3	49	12	10-165/20
534-52-1	4,6-Dinitro-o-cresol	ND		50	27.5	55	50	31.7	63	14	13-165/20
95-48-7	2-Methylphenol	ND		50	32.6	65	50	33.1	66	2	30-99/20
	3&4-Methylphenol	ND		100	66.3	66	100	67.4	67	2	32-89/20
88-75-5	2-Nitrophenol	ND		50	42.4	85	50	42.8	86	1	44-120/20
100-02-7	4-Nitrophenol	ND		50	20.5	41	50	23.4	47	13	10-93/20
87-86-5	Pentachlorophenol	ND		50	39.2	78	50	43.0	86	9	33-131/20
108-95-2	Phenol	ND		50	18.7	37	50	19.0	38	2	15-53/20
95-95-4	2,4,5-Trichlorophenol	ND		50	45.1	90	50	48.5	97	7	45-126/20
88-06-2	2,4,6-Trichlorophenol	ND		50	45.7	91	50	48.9	98	7	45-124/20
62-53-3	Aniline	ND		50	31.5	63	50	30.4	61	4	18-91/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	53.7	107	50	58.5	117	9	57-131/20
85-68-7	Butyl benzyl phthalate	ND		50	52.7	105	50	57.1	114	8	58-135/20
100-51-6	Benzyl Alcohol	ND		50	43.7	87	50	44.0	88	1	10-109/20
91-58-7	2-Chloronaphthalene	ND		50	52.5	105	50	55.6	111	6	51-123/20
106-47-8	4-Chloroaniline	ND		50	46.5	93	50	46.8	94	1	39-109/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	48.5	97	50	49.3	99	2	36-120/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	43.1	86	50	41.2	82	5	30-124/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	47.9	96	50	46.8	94	2	25-171/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	54.0	108	50	57.3	115	6	51-122/20
122-66-7	1,2-Diphenylhydrazine	ND		50	49.4	99	50	53.6	107	8	47-130/20
121-14-2	2,4-Dinitrotoluene	ND		50	57.8	116	50	62.6	125	8	57-131/20
606-20-2	2,6-Dinitrotoluene	ND		50	55.9	112	50	60.2	120	7	52-135/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	44.1	88	50	46.3	93	5	25-157/20
132-64-9	Dibenzofuran	ND		50	51.6	103	50	55.5	111* a	7	54-110/20
84-74-2	Di-n-butyl phthalate	ND		50	50.9	102	50	55.5	111	9	60-122/20
117-84-0	Di-n-octyl phthalate	ND		50	53.8	108	50	57.8	116	7	54-142/20
84-66-2	Diethyl phthalate	ND		50	53.6	107	50	57.7	115	7	40-132/20
131-11-3	Dimethyl phthalate	ND		50	53.8	108	50	58.0	116	8	13-149/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		50	55.6	111	50	60.2	120	8	59-139/20
118-74-1	Hexachlorobenzene	ND		50	54.5	109	50	59.9	120	9	56-135/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42772-MS	W21837.D	1	05/05/15	KD	04/22/15	OP42772	MSW932
OP42772-MSD	W21838.D	1	05/05/15	KD	04/22/15	OP42772	MSW932
MC38000-27	W21839.D	1	05/05/15	KD	04/22/15	OP42772	MSW932

The QC reported here applies to the following samples: Method: SW846 8270D

MC38159-1, MC38159-2, MC38159-3

CAS No.	Compound	MC38000-27 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		50	12.9	26	50	13.0	26	1	10-73/20
67-72-1	Hexachloroethane	ND		50	41.8	84	50	40.7	81	3	13-103/20
78-59-1	Isophorone	ND		50	42.9	86	50	43.8	88	2	41-110/20
88-74-4	2-Nitroaniline	ND		50	57.9	116	50	61.9	124	7	57-126/20
99-09-2	3-Nitroaniline	ND		50	51.9	104	50	55.2	110	6	53-118/20
100-01-6	4-Nitroaniline	ND		50	54.0	108	50	57.8	116	7	50-119/20
98-95-3	Nitrobenzene	ND		50	45.1	90	50	44.6	89	1	35-127/20
62-75-9	n-Nitrosodimethylamine	ND		50	35.5	71	50	34.5	69	3	11-82/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	46.1	92	50	46.2	92	0	39-129/20
86-30-6	N-Nitrosodiphenylamine	ND		50	46.8	94	50	51.3	103	9	55-112/20
110-86-1	Pyridine	ND		50	28.1	56	50	28.0	56	0	15-71/20

CAS No.	Surrogate Recoveries	MS	MSD	MC38000-27	Limits
367-12-4	2-Fluorophenol	50%	50%	52%	10-79%
4165-62-2	Phenol-d5	39%	40%	41%	10-72%
118-79-6	2,4,6-Tribromophenol	93%	102%	92%	35-138%
4165-60-0	Nitrobenzene-d5	81%	81%	78%	30-116%
321-60-8	2-Fluorobiphenyl	82%	88%	79%	35-107%
1718-51-0	Terphenyl-d14	92%	100%	92%	43-135%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42773-MS	I95428.D	1	05/02/15	KD	04/22/15	OP42773	MSI3570
OP42773-MSD	I95429.D	1	05/02/15	KD	04/22/15	OP42773	MSI3570
MC38000-28	I95430.D	1	05/02/15	KD	04/22/15	OP42773	MSI3570

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC38159-1, MC38159-2, MC38159-3

7.3.2

7

CAS No.	Compound	MC38000-28 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	46.9	94	50	50.2	100	7	36-124/20
208-96-8	Acenaphthylene	ND		50	44.3	89	50	46.7	93	5	25-116/20
120-12-7	Anthracene	ND		50	47.9	96	50	51.1	102	6	42-122/20
56-55-3	Benzo(a)anthracene	ND		50	55.3	111	50	60.1	120	8	45-145/20
50-32-8	Benzo(a)pyrene	ND		50	57.7	115	50	62.6	125	8	40-136/20
205-99-2	Benzo(b)fluoranthene	ND		50	50.0	100	50	57.8	116	14	41-148/20
191-24-2	Benzo(g,h,i)perylene	ND		50	60.5	121	50	65.9	132	9	48-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	53.4	107	50	54.5	109	2	45-131/20
218-01-9	Chrysene	ND		50	50.2	100	50	54.7	109	9	41-135/20
53-70-3	Dibenzo(a,h)anthracene	ND		50	59.0	118	50	64.0	128	8	49-144/20
206-44-0	Fluoranthene	ND		50	47.3	95	50	51.7	103	9	38-136/20
86-73-7	Fluorene	ND		50	48.7	97	50	53.0	106	8	43-127/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	60.5	121	50	65.7	131	8	45-142/20
90-12-0	1-Methylnaphthalene	ND		50	46.8	94	50	48.2	96	3	29-116/20
91-57-6	2-Methylnaphthalene	ND		50	47.5	95	50	49.1	98	3	27-117/20
85-01-8	Phenanthrene	ND		50	47.4	95	50	50.3	101	6	41-126/20
129-00-0	Pyrene	ND		50	47.5	95	50	51.6	103	8	41-131/20

CAS No.	Surrogate Recoveries	MS	MSD	MC38000-28	Limits
4165-60-0	Nitrobenzene-d5	80%	80%	76%	26-121%
321-60-8	2-Fluorobiphenyl	75%	79%	73%	28-107%
1718-51-0	Terphenyl-d14	86%	95%	87%	29-129%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3570-CC3561	Injection Date:	05/02/15
Lab File ID:	I95417.D	Injection Time:	10:50
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	186063	3.55	395589	4.59	234247	6.10	421955	7.41	339365	10.18	907078	11.61
Upper Limit [a]	372126	4.05	791178	5.09	468494	6.60	843910	7.91	678730	10.68	1814156	12.11
Lower Limit [b]	93032	3.05	197795	4.09	117124	5.60	210978	6.91	169683	9.68	453539	11.11
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP42776-MB	143900	3.55	313786	4.59	185966	6.10	330852	7.41	284494	10.18	737604	11.60
OP42776-BS	192086	3.55	418412	4.59	247563	6.10	440187	7.41	371681	10.18	953661	11.61
OP42776-BSD	155216	3.55	339469	4.59	203330	6.10	363668	7.41	308010	10.18	805562	11.60
ZZZZZZ	114625	3.55	251903	4.59	150688	6.10	270069	7.41	223914	10.18	623881	11.60
ZZZZZZ	134359	3.55	289199	4.59	176013	6.10	318156	7.41	266866	10.18	740692	11.60
ZZZZZZ	110745	3.55	242972	4.59	149579	6.10	276138	7.41	225871	10.17	630556	11.60
OP42773-MB	155392	3.55	352686	4.59	213071	6.10	388244	7.41	321935	10.18	859564	11.60
OP42773-BS	171325	3.55	393825	4.59	231938	6.10	442882	7.42	359086	10.18	917621	11.61
OP42773-MS	152877	3.55	347139	4.59	206336	6.10	387288	7.42	321589	10.18	839307	11.61
OP42773-MSD	155835	3.55	357898	4.59	211539	6.10	401099	7.42	327802	10.18	850704	11.61
MC38000-28	117599	3.55	267814	4.59	162164	6.10	293250	7.41	255056	10.18	706565	11.60
MC38159-2	213923	3.55	473264	4.59	282021	6.11	511285	7.42	419733	10.18	1098035	11.61
MC38159-3	148364	3.55	340580	4.59	211765	6.10	409219	7.42	366531	10.18	999967	11.61

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3571-CC3561	Injection Date:	05/04/15
Lab File ID:	I95436.D	Injection Time:	08:24
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	215306	3.55	464171	4.59	274445	6.10	503389	7.42	415785	10.18	1089849	11.61
Upper Limit [a]	430612	4.05	928342	5.09	548890	6.60	1006778	7.92	831570	10.68	2179698	12.11
Lower Limit [b]	107653	3.05	232086	4.09	137223	5.60	251695	6.92	207893	9.68	544925	11.11
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP42870-MB	249017	3.55	526838	4.59	306349	6.10	531272	7.42	414526	10.18	1041589	11.61
OP42870-BS	273140	3.55	596477	4.59	344316	6.11	633453	7.42	495854	10.19	1246617	11.62
OP42870-MS	274246	3.55	595489	4.59	343952	6.11	619693	7.42	488340	10.19	1258003	11.62
OP42870-MSD	259939	3.55	580787	4.59	336553	6.11	609743	7.42	487241	10.19	1255843	11.62
MC38317-5	249991	3.55	545988	4.59	326337	6.10	576378	7.42	469209	10.18	1240110	11.61
ZZZZZZ	203879	3.55	452056	4.59	272092	6.10	498827	7.42	422218	10.18	1127896	11.61
ZZZZZZ	190281	3.55	419537	4.59	249894	6.10	453970	7.42	393620	10.18	1070346	11.61
ZZZZZZ	271900	3.55	583457	4.59	342220	6.10	603023	7.42	479118	10.18	1208823	11.61
ZZZZZZ	249031	3.55	530833	4.59	313974	6.10	569237	7.42	451605	10.18	1163231	11.61
ZZZZZZ	244610	3.55	532487	4.59	314242	6.10	559796	7.42	453251	10.18	1197947	11.61
ZZZZZZ	269179	3.55	578216	4.59	333020	6.10	570240	7.42	434383	10.18	1084866	11.61
ZZZZZZ	242558	3.55	521107	4.59	305806	6.10	551501	7.42	447298	10.18	1193022	11.61
ZZZZZZ	229419	3.55	500370	4.59	290765	6.10	530580	7.42	456850	10.18	1191142	11.61
ZZZZZZ	144416	3.55	324515	4.59	197887	6.10	370621	7.41	324553	10.18	894342	11.61
ZZZZZZ	139727	3.55	313883	4.59	189704	6.10	355306	7.41	302554	10.18	828008	11.60
ZZZZZZ	218952	3.55	479809	4.59	285098	6.10	525879	7.42	432808	10.18	1147012	11.61
ZZZZZZ	235353	3.55	506188	4.59	296875	6.10	534579	7.42	431501	10.18	1124277	11.61
OP42917-MB	261771	3.55	567037	4.59	333279	6.10	600185	7.42	486305	10.18	1246064	11.61
OP42917-BS	254028	3.55	552721	4.59	319738	6.11	591198	7.42	482376	10.19	1217918	11.62
OP42917-BSD	215722	3.55	486334	4.59	287365	6.11	540487	7.42	438078	10.19	1130416	11.61
MC38159-1	258823	3.55	566738	4.59	333535	6.11	602278	7.42	502185	10.18	1293554	11.61
ZZZZZZ	247313	3.55	524949	4.59	314114	6.11	572556	7.42	470338	10.18	1243465	11.61
ZZZZZZ	262977	3.55	569367	4.59	338451	6.10	603776	7.42	483978	10.18	1240507	11.61
OP42780-MB	272697	3.55	592738	4.59	342468	6.10	601865	7.42	451930	10.18	1086744	11.61
OP42780-BS	275412	3.56	607630	4.59	344671	6.11	624333	7.42	455847	10.19	1061331	11.61
OP42780-MS	284558	3.56	628133	4.59	355237	6.11	631433	7.42	449066	10.19	1035646	11.61
OP42780-MSD	260229	3.55	585520	4.59	338728	6.11	606100	7.42	451322	10.19	1077670	11.62
MC38153-1	266156	3.55	585921	4.59	350589	6.10	613788	7.42	458587	10.18	1114032	11.61

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

7.4.2

7

Semivolatile Internal Standard Area Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3571-CC3561	Injection Date:	05/04/15
Lab File ID:	I95436.D	Injection Time:	08:24
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW932-CC902	Injection Date:	05/04/15
Lab File ID:	W21819.D	Injection Time:	17:59
Instrument ID:	GCMSW	Method:	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	259586	4.99	974543	6.10	558306	7.64	1010790	8.93	1065292	11.43	1084953	13.09
Upper Limit [a]	519172	5.49	1949086	6.60	1116612	8.14	2021580	9.43	2130584	11.93	2169906	13.59
Lower Limit [b]	129793	4.49	487272	5.60	279153	7.14	505395	8.43	532646	10.93	542477	12.59
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP42911-MB	344341	4.99	1271653	6.09	760025	7.63	1299507	8.92	1365575	11.43	1339378	13.09
OP42911-BS	348835	4.99	1297040	6.09	755976	7.64	1319079	8.92	1346164	11.43	1306647	13.09
OP42911-BSD	345203	4.99	1281300	6.09	759603	7.64	1311098	8.92	1349229	11.43	1316225	13.09
MC38406-1	332337	4.99	1223733	6.09	736918	7.63	1264343	8.92	1312931	11.43	1205267	13.09
ZZZZZZ	219003	5.01	1109638	6.10	719787	7.63	1218079	8.92	1266167	11.43	1235359	13.09
ZZZZZZ	338015	4.99	1242658	6.09	743268	7.64	1249810	8.92	1212898	11.43	1175586	13.09
ZZZZZZ	330157	4.99	1204238	6.09	717408	7.63	1211138	8.92	1189851	11.43	1141918	13.09
ZZZZZZ	343723	4.99	1255669	6.09	743237	7.63	1256778	8.92	1249411	11.43	1174540	13.09
ZZZZZZ	337873	4.99	1245897	6.09	738330	7.63	1256794	8.92	1260207	11.43	1220533	13.09
ZZZZZZ	340985	4.99	1249054	6.09	749196	7.63	1258626	8.92	1222792	11.43	1158189	13.09
ZZZZZZ	374824	4.99	1345758	6.09	788620	7.63	1280616	8.92	1192171	11.43	1128301	13.09
ZZZZZZ	322810	4.99	1197067	6.09	703626	7.63	1173072	8.92	1128372	11.43	1104279	13.09
ZZZZZZ	338134	4.99	1244920	6.09	731344	7.63	1202736	8.92	1143440	11.43	1135844	13.09
OP42772-MB	335237	4.99	1250016	6.09	748648	7.64	1291551	8.92	1355247	11.43	1360071	13.09
OP42772-BS	315751	4.99	1176244	6.10	669925	7.64	1183992	8.92	1202711	11.43	1196541	13.09
OP42772-MS	329583	4.99	1232122	6.10	718393	7.64	1279770	8.92	1312115	11.43	1315499	13.09
OP42772-MSD	335045	4.99	1249006	6.10	710516	7.64	1247837	8.92	1285568	11.43	1286236	13.09
MC38000-27	348585	4.99	1281192	6.09	758470	7.63	1280415	8.92	1334759	11.43	1344935	13.09
MC38159-1	317681	4.99	1165762	6.10	712656	7.64	1212628	8.92	1278511	11.43	1285542	13.09
MC38159-2	317150	4.99	1168825	6.09	694372	7.64	1174032	8.92	1206122	11.43	1218807	13.09
MC38159-3	328230	4.99	1195994	6.09	715312	7.63	1237792	8.92	1308022	11.43	1292744	13.09

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Surrogate Recovery Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8270D Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC38159-1	W21840.D	46	31	100	75	79	93
MC38159-2	W21841.D	47	33	105	85	83	97
MC38159-3	W21842.D	46	34	99	80	83	94
OP42772-BS	W21836.D	52	41	93	79	83	92
OP42772-MB	W21835.D	49	39	90	76	78	92
OP42772-MS	W21837.D	50	39	93	81	82	92
OP42772-MSD	W21838.D	50	40	102	81	88	100

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	10-79%
S2 = Phenol-d5	10-72%
S3 = 2,4,6-Tribromophenol	35-138%
S4 = Nitrobenzene-d5	30-116%
S5 = 2-Fluorobiphenyl	35-107%
S6 = Terphenyl-d14	43-135%

7.5.1

7

Semivolatile Surrogate Recovery Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8270D BY SIM Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC38159-1	I95458.D	76	73	93
MC38159-2	I95432.D	80	74	95
MC38159-3	I95433.D	79	75	89
OP42773-BS	I95427.D	79	74	88
OP42773-MB	I95426.D	74	71	89
OP42773-MS	I95428.D	80	75	86
OP42773-MSD	I95429.D	80	79	95

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	26-121%
S2 = 2-Fluorobiphenyl	28-107%
S3 = Terphenyl-d14	29-129%

7.5.2

7

New England ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries

Method Blank Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42812-MB	BB62956.D	1	04/28/15	NK	04/24/15	OP42812	GBB3425

The QC reported here applies to the following samples: Method: SW846 8011

MC38159-1, MC38159-2, MC38159-3, MC38159-5

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.0061	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.0061	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	Bromofluorobenzene (S)	85%	60-140%
460-00-4	Bromofluorobenzene (S)	103%	60-140%

8.1.1

Blank Spike Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42812-BS	BB62957.D	1	04/28/15	NK	04/24/15	OP42812	GBB3425

The QC reported here applies to the following samples: Method: SW846 8011

MC38159-1, MC38159-2, MC38159-3, MC38159-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.077	108	45-149
106-93-4	1,2-Dibromoethane	0.071	0.065	92	51-149

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	78%	60-140%
460-00-4	Bromofluorobenzene (S)	99%	60-140%

8.2.1

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42812-MS	BB62958.D	1	04/28/15	NK	04/24/15	OP42812	GBB3425
OP42812-MSD	BB62959.D	1	04/28/15	NK	04/24/15	OP42812	GBB3425
MC38200-2	BB62960.D	1	04/28/15	NK	04/24/15	OP42812	GBB3425

The QC reported here applies to the following samples: Method: SW846 8011

MC38159-1, MC38159-2, MC38159-3, MC38159-5

CAS No.	Compound	MC38200-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	ND		0.071	0.079	111	0.071	0.082	115	4	31-169/30
106-93-4	1,2-Dibromoethane	ND		0.071	0.068	96	0.071	0.072	101	6	34-175/30

CAS No.	Surrogate Recoveries	MS	MSD	MC38200-2	Limits
460-00-4	Bromofluorobenzene (S)	80%	86%	85%	60-140%
460-00-4	Bromofluorobenzene (S)	99%	107%	99%	60-140%

* = Outside of Control Limits.

8.3.1

Volatile Surrogate Recovery Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8011 Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
MC38159-1	BB62962.D	65	101
MC38159-2	BB62963.D	75	115
MC38159-3	BB62964.D	75	103
MC38159-5	BB62965.D	84	105
OP42812-BS	BB62957.D	78	99
OP42812-MB	BB62956.D	85	103
OP42812-MS	BB62958.D	80	99
OP42812-MSD	BB62959.D	86	107

Surrogate Compounds	Recovery Limits
S1 = Bromofluorobenzene (S)	60-140%

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

8.4.1

GC Surrogate Retention Time Summary

Job Number: MC38159
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBB3425-ICC3425	Injection Date:	04/27/15
Lab File ID:	BB62952.D	Injection Time:	23:58
Instrument ID:	GCBB	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	6.87	7.23

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP42812-MB	BB62956.D	04/28/15	01:55	6.87	7.22
OP42812-BS	BB62957.D	04/28/15	02:25	6.87	7.22
OP42812-MS	BB62958.D	04/28/15	02:54	6.87	7.22
OP42812-MSD	BB62959.D	04/28/15	03:24	6.87	7.22
MC38200-2	BB62960.D	04/28/15	03:53	6.87	7.22
ZZZZZZ	BB62961.D	04/28/15	04:22	6.87	7.22
MC38159-1	BB62962.D	04/28/15	04:51	6.87	7.22
MC38159-2	BB62963.D	04/28/15	05:20	6.87	7.22
MC38159-3	BB62964.D	04/28/15	05:49	6.87	7.22
MC38159-5	BB62965.D	04/28/15	06:17	6.87	7.22

Surrogate Compounds

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.5.1

Roxana Groundwater Quarterly – 2nd Quarter 2015 Data Review

Laboratory SDG: MC38167

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 5/8/2015

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2014

Sample Identification	Sample Identification
MW4-ROX-042115	MW25-ROX-042115
MW8-ROX-042115	MW7-ROX-042115
MW7-ROX-042115-Dup	TB-ROX-042115-HCL
TB-ROX-042115-ST	

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 the VOC LCSD surrogate recovery for toluene-d_8 was outside evaluation criteria. Tert butyl alcohol-d_9 internal standard area recovery was outside criteria in sample MW7-ROX-042115 and quality control sample MSU1175-BSD. Samples were diluted due to high levels of VOCs. These issues are addressed further in the appropriate sections below. Additionally, the initial calibration verification for hexachlorocyclopentadiene exceeded 30 percent difference (%D). Continuing calibration verification for vinyl acetate, 1,4-dioxane, and trichlorofluoromethane exceeded 40%D.

The cooler receipt form indicated that one of two coolers was received by the laboratory at a temperature of 1.0°C, which is outside the 4ºC ± 2ºC criteria. Samples were received in good condition; therefore, no qualification of data was required.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

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

No

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

Yes

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MSU1175-BSD	VOCs	Toluene-d_8	**115**	85-114

LCSD MSU1175-BSD is a quality control sample, and is not qualified. 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	IS Criteria
MSU1175-BSD	VOCs	Tert butyl alcohol-d_9	**207610**	218037-872148
MW7-ROX-042115	VOCs	Tert butyl alcohol-d_9	**210764**	218037-872148

There were no target analytes associated with tert butyl alcohol-d_9; therefore, no qualification of data was required based on tert butyl alcohol-d_9.

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-042115	MW7-ROX-042115-Dup

Were field duplicates within evaluation criteria?

Yes

11.0 Sample Dilutions

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

Not applicable; analytes were detected in samples that were diluted.

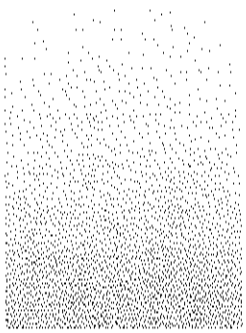
12.0 Additional Qualifications

Were additional qualifications applied?

No

New England ACCUTEST LABORATORIES

05/08/15



Technical Report for

Shell Oil

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana,

Accutest Job Number: MC38167

Sampling Date: 04/21/15

Report to:

AECOM, INC.

Melissa.mansker@urs.com

ATTN: Melissa Mansker

Total number of pages in report: **105**

Reviewed 5/8/15

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Reza Tand
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

Sections: 1 2 3 4 5 6 7 8

Table of Contents

Section 1: Sample Summary 3
Section 2: Case Narrative/Conformance Summary 4
Section 3: Summary of Hits 6
Section 4: Sample Results 9
4.1: MC38167-1: MW4-ROX-042115 10
4.2: MC38167-2: MW25-ROX-042115 17
4.3: MC38167-3: MW8-ROX-042115 24
4.4: MC38167-4: MW7-ROX-042115 31
4.5: MC38167-5: MW7-ROX-042115-DUP 38
4.6: MC38167-6: TB-ROX-042115-HCL 45
4.7: MC38167-7: TB-ROX-042115-ST 48
Section 5: Misc. Forms 49
5.1: Chain of Custody 50
5.2: Sample Tracking Chronicle 52
5.3: Internal Chain of Custody 54
Section 6: GC/MS Volatiles - QC Data Summaries 56
6.1: Method Blank Summary 57
6.2: Blank Spike Summary 65
6.3: Blank Spike/Blank Spike Duplicate Summary 69
6.4: Matrix Spike/Matrix Spike Duplicate Summary 73
6.5: Internal Standard Area Summaries 77
6.6: Surrogate Recovery Summaries 81
Section 7: GC/MS Semi-volatiles - QC Data Summaries 82
7.1: Method Blank Summary 83
7.2: Blank Spike Summary 86
7.3: Matrix Spike/Matrix Spike Duplicate Summary 89
7.4: Internal Standard Area Summaries 92
7.5: Surrogate Recovery Summaries 97
Section 8: GC Volatiles - QC Data Summaries 99
8.1: Method Blank Summary 100
8.2: Blank Spike Summary 101
8.3: Matrix Spike/Matrix Spike Duplicate Summary 102
8.4: Surrogate Recovery Summaries 103
8.5: GC Surrogate Retention Time Summaries 104

1

Sample Summary

Shell Oil

Job No: MC38167

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
MC38167-1	04/21/15	09:30	DCCW	04/22/15	AQ	Ground Water	MW4-ROX-042115
MC38167-2	04/21/15	10:25	DCCW	04/22/15	AQ	Ground Water	MW25-ROX-042115
MC38167-3	04/21/15	11:20	DCCW	04/22/15	AQ	Ground Water	MW8-ROX-042115
MC38167-4	04/21/15	14:30	DCCW	04/22/15	AQ	Ground Water	MW7-ROX-042115
MC38167-5	04/21/15	14:30	DCCW	04/22/15	AQ	Ground Water	MW7-ROX-042115-DUP
MC38167-6	04/21/15	00:00	DCCW	04/22/15	AQ	Trip Blank Water	TB-ROX-042115-HCL
MC38167-7	04/21/15	00:00	DCCW	04/22/15	AQ	Trip Blank Water	TB-ROX-042115-ST

ACCUTEST LABORATORIES

2

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	MC38167
Site:	URSMOSTL;Roxana 2Q15 GW/ 21563720.03002 900 South Central	**Report Date**	5/7/2015 10:58:47 AM

5 Sample(s) and 2 Trip Blank(s) were collected on 04/21/2015 and were received at Accutest on 04/22/2015 properly preserved, at 1 Deg. C and intact. These Samples received an Accutest job number of MC38167. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report. 1-Chlorohexane, Benzenethiol, Dibenz(a,h)acridine, Indene, and Quinoline were searched in the library search and reported only if detections were found.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix AQ **Batch ID:** MSP2776

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC38218-2MS, MC38218-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- MC38218-2MS, MC38218-2MSD: Analysis performed outside 12h BFB tune time.

Matrix AQ **Batch ID:** MSU1175

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- MSU1175-BSD for Toluene-D8: Outside control limits. Blank Spike meets program technical requirements.

Matrix AQ **Batch ID:** MSV1395

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC38190-8MS, MC38190-8MSD were used as the QC samples indicated.
- Initial calibration verification standard MSV1332-ICV1332 for 2-hexanone exceed 30% Difference (response bias high). Associated samples are non-detect for this compound.
- Matrix Spike Recovery(s) for 1,1-Dichloroethene, 2-Chloroethyl vinyl ether, trans-1,2-Dichloroethene are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for 2-Chloroethyl vinyl ether are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Continuing calibration check standard MSV1395-CC1332 for vinyl acetate exceed 40% Difference, (response bias high). Associated samples are non-detect for this compound.
- MC38167-2, 3,4,5,6 for 1,4-Dioxane; CCV outside criteria. Sample results may be biased low.
- Continuing calibration check standard MSV1395-CC1332 for 1,4-Dioxane exceed 40% Difference (response bias low).

Matrix AQ **Batch ID:** MSV1396

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Continuing calibration check standard MSV1396-CC1332 for trichlorofluoromethane exceed 40% Difference, (response bias high). Associated samples are non-detect for this compound.

Extractables by GCMS By Method SW846 8270D

Matrix AQ	Batch ID: OP42788

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC38000-32MS, MC38000-32MSD were used as the QC samples indicated.
- Initial calibration verification MSW902-ICV902, file W21009 for Hexachlorocyclopentadiene exceed 30% Difference. Hexachlorocyclopentadiene is within criteria in continuing calibration check standard MSW933-CC902.

Extractables by GCMS By Method SW846 8270D BY SIM

Matrix AQ	Batch ID: OP42789

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC38000-33MS, MC38000-33MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- OP42789-MSD has internal standard outside control limits due to possible matrix interference.

Volatiles by GC By Method SW846 8011

Matrix AQ	Batch ID: OP42812

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC38200-2MS, MC38200-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC38167).

Summary of Hits

Job Number: MC38167
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Collected: 04/21/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC38167-1	MW4-ROX-042115					
Benzene		70.2	2.5	1.4	ug/l	SW846 8260C
tert-Butylbenzene		0.66 J	5.0	0.57	ug/l	SW846 8260C
Ethylbenzene		0.51 J	1.0	0.24	ug/l	SW846 8260C
Isopropylbenzene		1.2 J	5.0	0.27	ug/l	SW846 8260C
n-Propylbenzene		1.3 J	5.0	0.29	ug/l	SW846 8260C
Toluene		2.4	1.0	0.29	ug/l	SW846 8260C
1,2,4-Trimethylbenzene		0.45 J	5.0	0.29	ug/l	SW846 8260C
m,p-Xylene		4.2	1.0	0.47	ug/l	SW846 8260C
o-Xylene		1.1	1.0	0.22	ug/l	SW846 8260C
Xylene (total)		5.3	1.0	0.22	ug/l	SW846 8260C
Acenaphthene		0.027 J	0.10	0.0077	ug/l	SW846 8270D BY SIM
Fluoranthene		0.018 J	0.10	0.0076	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		0.24 J	2.1	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		0.21 J	2.1	0.011	ug/l	SW846 8270D BY SIM
Phenanthrene		0.020 J	0.052	0.011	ug/l	SW846 8270D BY SIM
Pyrene		0.018 J	0.10	0.0088	ug/l	SW846 8270D BY SIM
MC38167-2	MW25-ROX-042115					
Benzene		78700	500	270	ug/l	SW846 8260C
Methyl Tert Butyl Ether		125	50	17	ug/l	SW846 8260C
Phenol		59.2	5.1	0.33	ug/l	SW846 8270D
Acenaphthene		0.032 J	0.10	0.0077	ug/l	SW846 8270D BY SIM
Anthracene		0.016 J	0.10	0.010	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		0.67 J	2.0	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		0.35 J	2.0	0.011	ug/l	SW846 8270D BY SIM
MC38167-3	MW8-ROX-042115					
Benzene		1100000	5000	2700	ug/l	SW846 8260C
Ethylbenzene		203	50	12	ug/l	SW846 8260C
Methyl Tert Butyl Ether		506	50	17	ug/l	SW846 8260C
n-Propylbenzene		25.1 J	250	15	ug/l	SW846 8260C
Toluene		325	50	15	ug/l	SW846 8260C
1,2,4-Trimethylbenzene		47.3 J	250	14	ug/l	SW846 8260C
1,3,5-Trimethylbenzene		24.1 J	250	10	ug/l	SW846 8260C
m,p-Xylene		164	50	23	ug/l	SW846 8260C
o-Xylene		55.2	50	11	ug/l	SW846 8260C
Xylene (total)		220	50	11	ug/l	SW846 8260C
2,4-Dimethylphenol		20.1	11	0.36	ug/l	SW846 8270D
2-Methylphenol		4.9 J	11	0.31	ug/l	SW846 8270D
3&4-Methylphenol		6.3 J	11	0.47	ug/l	SW846 8270D
Phenol		129	5.3	0.34	ug/l	SW846 8270D

Summary of Hits

Job Number: MC38167
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Collected: 04/21/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Dibenzofuran		0.45 J	2.1	0.26	ug/l	SW846 8270D
Acenaphthene		0.18	0.11	0.0079	ug/l	SW846 8270D BY SIM
Acenaphthylene		0.052 J	0.11	0.0088	ug/l	SW846 8270D BY SIM
Anthracene		0.034 J	0.11	0.010	ug/l	SW846 8270D BY SIM
Fluorene		0.41	0.11	0.016	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		12.6	2.1	0.013	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		5.3	2.1	0.012	ug/l	SW846 8270D BY SIM
Phenanthrene		0.14	0.053	0.011	ug/l	SW846 8270D BY SIM
MC38167-4	MW7-ROX-042115					
Benzene		1110000	5000	2700	ug/l	SW846 8260C
Ethylbenzene		82.2	50	12	ug/l	SW846 8260C
Toluene		295	50	15	ug/l	SW846 8260C
1,2,4-Trimethylbenzene		79.1 J	250	14	ug/l	SW846 8260C
1,3,5-Trimethylbenzene		17.4 J	250	10	ug/l	SW846 8260C
m,p-Xylene		116	50	23	ug/l	SW846 8260C
o-Xylene		35.7 J	50	11	ug/l	SW846 8260C
Xylene (total)		152	50	11	ug/l	SW846 8260C
2,4-Dimethylphenol		1.4 J	10	0.34	ug/l	SW846 8270D
2-Methylphenol		0.37 J	10	0.30	ug/l	SW846 8270D
3&4-Methylphenol		1.1 J	10	0.45	ug/l	SW846 8270D
Phenol		70.7	5.1	0.32	ug/l	SW846 8270D
Dibenzofuran		0.28 J	2.0	0.25	ug/l	SW846 8270D
Acenaphthene		0.38	0.10	0.0076	ug/l	SW846 8270D BY SIM
Acenaphthylene		0.059 J	0.10	0.0085	ug/l	SW846 8270D BY SIM
Anthracene		0.055 J	0.10	0.0099	ug/l	SW846 8270D BY SIM
Chrysene		0.022 J	0.10	0.013	ug/l	SW846 8270D BY SIM
Fluorene		0.33	0.10	0.015	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		8.0	2.0	0.012	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		10	2.0	0.011	ug/l	SW846 8270D BY SIM
Phenanthrene		0.66	0.051	0.011	ug/l	SW846 8270D BY SIM
Pyrene		0.057 J	0.10	0.0086	ug/l	SW846 8270D BY SIM
MC38167-5	MW7-ROX-042115-DUP					
Benzene		1160000	5000	2700	ug/l	SW846 8260C
Ethylbenzene		81.0	50	12	ug/l	SW846 8260C
Toluene		285	50	15	ug/l	SW846 8260C
1,2,4-Trimethylbenzene		78.4 J	250	14	ug/l	SW846 8260C
1,3,5-Trimethylbenzene		17.3 J	250	10	ug/l	SW846 8260C
m,p-Xylene		116	50	23	ug/l	SW846 8260C
o-Xylene		36.9 J	50	11	ug/l	SW846 8260C
Xylene (total)		153	50	11	ug/l	SW846 8260C
2,4-Dimethylphenol		1.2 J	10	0.34	ug/l	SW846 8270D

Summary of Hits

Job Number: MC38167
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Collected: 04/21/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
2-Methylphenol		0.32 J	10	0.30	ug/l	SW846 8270D
3&4-Methylphenol		1.1 J	10	0.45	ug/l	SW846 8270D
Phenol		76.6	5.1	0.32	ug/l	SW846 8270D
bis(2-Ethylhexyl)phthalate		0.33 J	2.0	0.32	ug/l	SW846 8270D
Acenaphthene		0.36	0.10	0.0076	ug/l	SW846 8270D BY SIM
Acenaphthylene		0.053 J	0.10	0.0085	ug/l	SW846 8270D BY SIM
Anthracene		0.050 J	0.10	0.0099	ug/l	SW846 8270D BY SIM
Benzo(a)pyrene		0.024 J	0.10	0.015	ug/l	SW846 8270D BY SIM
Benzo(g,h,i)perylene		0.018 J	0.10	0.013	ug/l	SW846 8270D BY SIM
Chrysene		0.028 J	0.10	0.013	ug/l	SW846 8270D BY SIM
Dibenzo(a,h)anthracene		0.016 J	0.10	0.015	ug/l	SW846 8270D BY SIM
Fluoranthene		0.026 J	0.10	0.0075	ug/l	SW846 8270D BY SIM
Fluorene		0.30	0.10	0.015	ug/l	SW846 8270D BY SIM
1-Methylnaphthalene		7.4	2.0	0.012	ug/l	SW846 8270D BY SIM
2-Methylnaphthalene		9.3	2.0	0.011	ug/l	SW846 8270D BY SIM
Phenanthrene		0.63	0.051	0.011	ug/l	SW846 8270D BY SIM
Pyrene		0.066 J	0.10	0.0086	ug/l	SW846 8270D BY SIM

MC38167-6 TB-ROX-042115-HCL

No hits reported in this sample.

MC38167-7 TB-ROX-042115-ST

No hits reported in this sample.

New England ACCUTEST LABORATORIES

4

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW4-ROX-042115		
Lab Sample ID:	MC38167-1	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38806.D	1	05/05/15	KD	n/a	n/a	MSV1396
Run #2	P84712.D	5	05/05/15	JB	n/a	n/a	MSP2776

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	70.2 [a]	2.5	1.4	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	0.66	5.0	0.57	ug/l	J
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW4-ROX-042115		
Lab Sample ID:	MC38167-1	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	0.51	1.0	0.24	ug/l	J
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	1.2	5.0	0.27	ug/l	J
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	1.3	5.0	0.29	ug/l	J
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	2.4	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	0.45	5.0	0.29	ug/l	J
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	4.2	1.0	0.47	ug/l	
95-47-6	o-Xylene	1.1	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	5.3	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW4-ROX-042115		
Lab Sample ID:	MC38167-1	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%	105%	72-133%
2037-26-5	Toluene-D8	105%	101%	85-114%
460-00-4	4-Bromofluorobenzene	106%	112%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW4-ROX-042115		
Lab Sample ID:	MC38167-1	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21861.D	1	05/05/15	KD	04/23/15	OP42788	MSW933
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.2	0.30	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.52	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.48	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.35	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.61	ug/l	
95-48-7	2-Methylphenol	ND	10	0.31	ug/l	
	3&4-Methylphenol	ND	10	0.46	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.48	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.36	ug/l	
108-95-2	Phenol	ND	5.2	0.33	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.47	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.46	ug/l	
62-53-3	Aniline	ND	10	0.47	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	0.25	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.33	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.2	0.35	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.37	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	0.51	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	0.43	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	0.43	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	0.27	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.2	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.38	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.39	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	0.55	ug/l	
132-64-9	Dibenzofuran	ND	2.1	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.2	0.28	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.2	0.30	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW4-ROX-042115		
Lab Sample ID:	MC38167-1	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL.		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.2	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	5.2	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.33	ug/l	
118-74-1	Hexachlorobenzene	ND	5.2	0.25	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.2	0.29	ug/l	
78-59-1	Isophorone	ND	5.2	0.48	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.37	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.42	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.53	ug/l	
98-95-3	Nitrobenzene	ND	5.2	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	0.26	ug/l	
110-86-1	Pyridine	ND	10	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	44%		10-79%
4165-62-2	Phenol-d5	32%		10-72%
118-79-6	2,4,6-Tribromophenol	104%		35-138%
4165-60-0	Nitrobenzene-d5	80%		30-116%
321-60-8	2-Fluorobiphenyl	78%		35-107%
1718-51-0	Terphenyl-d14	104%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW4-ROX-042115		
Lab Sample ID:	MC38167-1	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95496.D	1	05/05/15	KD	04/23/15	OP42789	MSI3572
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.027	0.10	0.0077	ug/l	J
208-96-8	Acenaphthylene	ND	0.10	0.0087	ug/l	
120-12-7	Anthracene	ND	0.10	0.010	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.052	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.052	0.020	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	0.018	0.10	0.0076	ug/l	J
86-73-7	Fluorene	ND	0.10	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.021	ug/l	
90-12-0	1-Methylnaphthalene	0.24	2.1	0.013	ug/l	J
91-57-6	2-Methylnaphthalene	0.21	2.1	0.011	ug/l	J
85-01-8	Phenanthrene	0.020	0.052	0.011	ug/l	J
129-00-0	Pyrene	0.018	0.10	0.0088	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	81%		26-121%
321-60-8	2-Fluorobiphenyl	72%		28-107%
1718-51-0	Terphenyl-d14	101%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW4-ROX-042115		
Lab Sample ID:	MC38167-1	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62967.D	1	04/28/15	NK	04/24/15	OP42812	GBB3425
Run #2							

	Initial Volume	Final Volume
Run #1	36.6 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0058	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0058	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	79%		60-140%
460-00-4	Bromofluorobenzene (S)	106%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW25-ROX-042115		
Lab Sample ID:	MC38167-2	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38786.D	50	05/05/15	KD	n/a	n/a	MSV1395
Run #2	U28286.D	1000	05/05/15	GK	n/a	n/a	MSU1175

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	500	100	ug/l	
107-02-8	Acrolein	ND	1300	550	ug/l	
107-13-1	Acrylonitrile	ND	250	110	ug/l	
71-43-2	Benzene	78700 [a]	500	270	ug/l	
108-86-1	Bromobenzene	ND	250	13	ug/l	
74-97-5	Bromochloromethane	ND	250	18	ug/l	
75-27-4	Bromodichloromethane	ND	50	8.9	ug/l	
75-25-2	Bromoform	ND	50	20	ug/l	
74-83-9	Bromomethane	ND	100	39	ug/l	
78-93-3	2-Butanone (MEK)	ND	250	150	ug/l	
104-51-8	n-Butylbenzene	ND	250	25	ug/l	
135-98-8	sec-Butylbenzene	ND	250	25	ug/l	
98-06-6	tert-Butylbenzene	ND	250	29	ug/l	
75-15-0	Carbon disulfide	ND	250	9.3	ug/l	
56-23-5	Carbon tetrachloride	ND	50	17	ug/l	
108-90-7	Chlorobenzene	ND	50	12	ug/l	
75-00-3	Chloroethane	ND	100	25	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	250	63	ug/l	
67-66-3	Chloroform	ND	50	20	ug/l	
74-87-3	Chloromethane	ND	100	24	ug/l	
95-49-8	o-Chlorotoluene	ND	250	30	ug/l	
106-43-4	p-Chlorotoluene	ND	250	23	ug/l	
124-48-1	Dibromochloromethane	ND	50	11	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	50	12	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	50	12	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	50	19	ug/l	
75-71-8	Dichlorodifluoromethane	ND	100	27	ug/l	
75-34-3	1,1-Dichloroethane	ND	50	14	ug/l	
107-06-2	1,2-Dichloroethane	ND	50	15	ug/l	
75-35-4	1,1-Dichloroethene	ND	50	14	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	50	16	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	50	24	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW25-ROX-042115		
Lab Sample ID:	MC38167-2	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	100	11	ug/l	
142-28-9	1,3-Dichloropropane	ND	250	14	ug/l	
594-20-7	2,2-Dichloropropane	ND	250	84	ug/l	
563-58-6	1,1-Dichloropropene	ND	250	12	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	25	13	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	25	22	ug/l	
123-91-1	1,4-Dioxane [b]	ND	1300	1000	ug/l	
97-63-2	Ethyl methacrylate	ND	250	25	ug/l	
100-41-4	Ethylbenzene	ND	50	12	ug/l	
87-68-3	Hexachlorobutadiene	ND	250	23	ug/l	
591-78-6	2-Hexanone	ND	250	130	ug/l	
98-82-8	Isopropylbenzene	ND	250	13	ug/l	
99-87-6	p-Isopropyltoluene	ND	250	16	ug/l	
1634-04-4	Methyl Tert Butyl Ether	125	50	17	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	38	ug/l	
74-95-3	Methylene bromide	ND	250	15	ug/l	
75-09-2	Methylene chloride	ND	100	13	ug/l	
91-20-3	Naphthalene	ND	250	100	ug/l	
103-65-1	n-Propylbenzene	ND	250	15	ug/l	
100-42-5	Styrene	ND	250	14	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	50	12	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	15	ug/l	
127-18-4	Tetrachloroethene	ND	50	10	ug/l	
108-88-3	Toluene	ND	50	15	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	250	39	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	250	37	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	50	21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	50	16	ug/l	
79-01-6	Trichloroethene	ND	50	12	ug/l	
75-69-4	Trichlorofluoromethane	ND	50	24	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	250	20	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	250	14	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	250	10	ug/l	
108-05-4	Vinyl Acetate	ND	250	72	ug/l	
75-01-4	Vinyl chloride	ND	50	23	ug/l	
	m,p-Xylene	ND	50	23	ug/l	
95-47-6	o-Xylene	ND	50	11	ug/l	
1330-20-7	Xylene (total)	ND	50	11	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW25-ROX-042115		
Lab Sample ID:	MC38167-2	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	120%	95%	72-133%
2037-26-5	Toluene-D8	99%	94%	85-114%
460-00-4	4-Bromofluorobenzene	102%	102%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Result is from Run# 2
(b) CCV outside criteria. Sample results may be low biased.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW25-ROX-042115		
Lab Sample ID:	MC38167-2	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21862.D	1	05/05/15	KD	04/23/15	OP42788	MSW933
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.1	0.30	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.52	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.48	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.34	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.60	ug/l	
95-48-7	2-Methylphenol	ND	10	0.31	ug/l	
	3&4-Methylphenol	ND	10	0.45	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.47	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.35	ug/l	
108-95-2	Phenol	59.2	5.1	0.33	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.46	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.46	ug/l	
62-53-3	Aniline	ND	10	0.47	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.1	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.1	0.25	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.33	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.1	0.35	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.1	0.50	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.1	0.43	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.1	0.43	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.1	0.26	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.1	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.38	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.38	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.1	0.54	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.1	0.28	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.1	0.29	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW25-ROX-042115		
Lab Sample ID:	MC38167-2	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.1	0.27	ug/l	
131-11-3	Dimethyl phthalate	ND	5.1	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.32	ug/l	
118-74-1	Hexachlorobenzene	ND	5.1	0.25	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.1	0.29	ug/l	
78-59-1	Isophorone	ND	5.1	0.48	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.36	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.41	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.52	ug/l	
98-95-3	Nitrobenzene	ND	5.1	0.49	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.1	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.1	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	0.26	ug/l	
110-86-1	Pyridine	ND	10	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	36%		10-79%
4165-62-2	Phenol-d5	27%		10-72%
118-79-6	2,4,6-Tribromophenol	99%		35-138%
4165-60-0	Nitrobenzene-d5	69%		30-116%
321-60-8	2-Fluorobiphenyl	61%		35-107%
1718-51-0	Terphenyl-d14	96%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW25-ROX-042115		
Lab Sample ID:	MC38167-2	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95497.D	1	05/05/15	KD	04/23/15	OP42789	MSI3572
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.032	0.10	0.0077	ug/l	J
208-96-8	Acenaphthylene	ND	0.10	0.0086	ug/l	
120-12-7	Anthracene	0.016	0.10	0.010	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.051	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.051	0.019	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.013	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.0076	ug/l	
86-73-7	Fluorene	ND	0.10	0.015	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.021	ug/l	
90-12-0	1-Methylnaphthalene	0.67	2.0	0.013	ug/l	J
91-57-6	2-Methylnaphthalene	0.35	2.0	0.011	ug/l	J
85-01-8	Phenanthrene	ND	0.051	0.011	ug/l	
129-00-0	Pyrene	ND	0.10	0.0087	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	69%		26-121%
321-60-8	2-Fluorobiphenyl	55%		28-107%
1718-51-0	Terphenyl-d14	87%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW25-ROX-042115		
Lab Sample ID:	MC38167-2	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62968.D	1	04/28/15	NK	04/24/15	OP42812	GBB3425
Run #2							

	Initial Volume	Final Volume
Run #1	38.0 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0056	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0056	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	80%		60-140%
460-00-4	Bromofluorobenzene (S)	106%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW8-ROX-042115		
Lab Sample ID:	MC38167-3	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38787.D	50	05/05/15	KD	n/a	n/a	MSV1395
Run #2	U28287.D	10000	05/05/15	GK	n/a	n/a	MSU1175

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	500	100	ug/l	
107-02-8	Acrolein	ND	1300	550	ug/l	
107-13-1	Acrylonitrile	ND	250	110	ug/l	
71-43-2	Benzene	1100000 [a]	5000	2700	ug/l	
108-86-1	Bromobenzene	ND	250	13	ug/l	
74-97-5	Bromochloromethane	ND	250	18	ug/l	
75-27-4	Bromodichloromethane	ND	50	8.9	ug/l	
75-25-2	Bromoform	ND	50	20	ug/l	
74-83-9	Bromomethane	ND	100	39	ug/l	
78-93-3	2-Butanone (MEK)	ND	250	150	ug/l	
104-51-8	n-Butylbenzene	ND	250	25	ug/l	
135-98-8	sec-Butylbenzene	ND	250	25	ug/l	
98-06-6	tert-Butylbenzene	ND	250	29	ug/l	
75-15-0	Carbon disulfide	ND	250	9.3	ug/l	
56-23-5	Carbon tetrachloride	ND	50	17	ug/l	
108-90-7	Chlorobenzene	ND	50	12	ug/l	
75-00-3	Chloroethane	ND	100	25	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	250	63	ug/l	
67-66-3	Chloroform	ND	50	20	ug/l	
74-87-3	Chloromethane	ND	100	24	ug/l	
95-49-8	o-Chlorotoluene	ND	250	30	ug/l	
106-43-4	p-Chlorotoluene	ND	250	23	ug/l	
124-48-1	Dibromochloromethane	ND	50	11	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	50	12	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	50	12	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	50	19	ug/l	
75-71-8	Dichlorodifluoromethane	ND	100	27	ug/l	
75-34-3	1,1-Dichloroethane	ND	50	14	ug/l	
107-06-2	1,2-Dichloroethane	ND	50	15	ug/l	
75-35-4	1,1-Dichloroethene	ND	50	14	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	50	16	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	50	24	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW8-ROX-042115		
Lab Sample ID:	MC38167-3	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	100	11	ug/l	
142-28-9	1,3-Dichloropropane	ND	250	14	ug/l	
594-20-7	2,2-Dichloropropane	ND	250	84	ug/l	
563-58-6	1,1-Dichloropropene	ND	250	12	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	25	13	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	25	22	ug/l	
123-91-1	1,4-Dioxane [b]	ND	1300	1000	ug/l	
97-63-2	Ethyl methacrylate	ND	250	25	ug/l	
100-41-4	Ethylbenzene	203	50	12	ug/l	
87-68-3	Hexachlorobutadiene	ND	250	23	ug/l	
591-78-6	2-Hexanone	ND	250	130	ug/l	
98-82-8	Isopropylbenzene	ND	250	13	ug/l	
99-87-6	p-Isopropyltoluene	ND	250	16	ug/l	
1634-04-4	Methyl Tert Butyl Ether	506	50	17	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	38	ug/l	
74-95-3	Methylene bromide	ND	250	15	ug/l	
75-09-2	Methylene chloride	ND	100	13	ug/l	
91-20-3	Naphthalene	ND	250	100	ug/l	
103-65-1	n-Propylbenzene	25.1	250	15	ug/l	J
100-42-5	Styrene	ND	250	14	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	50	12	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	15	ug/l	
127-18-4	Tetrachloroethene	ND	50	10	ug/l	
108-88-3	Toluene	325	50	15	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	250	39	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	250	37	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	50	21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	50	16	ug/l	
79-01-6	Trichloroethene	ND	50	12	ug/l	
75-69-4	Trichlorofluoromethane	ND	50	24	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	250	20	ug/l	
95-63-6	1,2,4-Trimethylbenzene	47.3	250	14	ug/l	J
108-67-8	1,3,5-Trimethylbenzene	24.1	250	10	ug/l	J
108-05-4	Vinyl Acetate	ND	250	72	ug/l	
75-01-4	Vinyl chloride	ND	50	23	ug/l	
	m,p-Xylene	164	50	23	ug/l	
95-47-6	o-Xylene	55.2	50	11	ug/l	
1330-20-7	Xylene (total)	220	50	11	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW8-ROX-042115		
Lab Sample ID:	MC38167-3	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	123%	100%	72-133%
2037-26-5	Toluene-D8	96%	95%	85-114%
460-00-4	4-Bromofluorobenzene	104%	95%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Result is from Run# 2
(b) CCV outside criteria. Sample results may be low biased.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW8-ROX-042115		
Lab Sample ID:	MC38167-3	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21863.D	1	05/05/15	KD	04/23/15	OP42788	MSW933
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	2.6	ug/l	
95-57-8	2-Chlorophenol	ND	5.3	0.31	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.53	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.49	ug/l	
105-67-9	2,4-Dimethylphenol	20.1	11	0.36	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	0.62	ug/l	
95-48-7	2-Methylphenol	4.9	11	0.31	ug/l	J
	3&4-Methylphenol	6.3	11	0.47	ug/l	J
88-75-5	2-Nitrophenol	ND	11	0.49	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	11	0.36	ug/l	
108-95-2	Phenol	129	5.3	0.34	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.47	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.47	ug/l	
62-53-3	Aniline	ND	11	0.48	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.26	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.26	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.34	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	0.36	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.38	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	0.52	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.44	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.44	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	0.27	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	0.31	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.39	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.40	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.56	ug/l	
132-64-9	Dibenzofuran	0.45	2.1	0.26	ug/l	J
84-74-2	Di-n-butyl phthalate	ND	5.3	0.28	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	0.30	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW8-ROX-042115		
Lab Sample ID:	MC38167-3	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.3	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	5.3	0.25	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.33	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.26	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.3	0.30	ug/l	
78-59-1	Isophorone	ND	5.3	0.49	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.38	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.43	ug/l	
100-01-6	4-Nitroaniline	ND	11	0.54	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.51	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	0.26	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	0.27	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.26	ug/l	
110-86-1	Pyridine	ND	11	0.38	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	42%		10-79%
4165-62-2	Phenol-d5	30%		10-72%
118-79-6	2,4,6-Tribromophenol	98%		35-138%
4165-60-0	Nitrobenzene-d5	71%		30-116%
321-60-8	2-Fluorobiphenyl	68%		35-107%
1718-51-0	Terphenyl-d14	93%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW8-ROX-042115		
Lab Sample ID:	MC38167-3	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95510.D	1	05/06/15	KD	04/23/15	OP42789	MSI3573
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.18	0.11	0.0079	ug/l	
208-96-8	Acenaphthylene	0.052	0.11	0.0088	ug/l	J
120-12-7	Anthracene	0.034	0.11	0.010	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.053	0.025	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.016	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.053	0.020	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.011	ug/l	
218-01-9	Chrysene	ND	0.11	0.014	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.016	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.0078	ug/l	
86-73-7	Fluorene	0.41	0.11	0.016	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.021	ug/l	
90-12-0	1-Methylnaphthalene	12.6	2.1	0.013	ug/l	
91-57-6	2-Methylnaphthalene	5.3	2.1	0.012	ug/l	
85-01-8	Phenanthrene	0.14	0.053	0.011	ug/l	
129-00-0	Pyrene	ND	0.11	0.0089	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	71%		26-121%
321-60-8	2-Fluorobiphenyl	62%		28-107%
1718-51-0	Terphenyl-d14	95%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW8-ROX-042115		
Lab Sample ID:	MC38167-3	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62969.D	1	04/28/15	NK	04/24/15	OP42812	GBB3425
Run #2							

	Initial Volume	Final Volume
Run #1	36.5 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0059	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0059	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	75%		60-140%
460-00-4	Bromofluorobenzene (S)	110%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW7-ROX-042115		
Lab Sample ID:	MC38167-4	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38788.D	50	05/05/15	KD	n/a	n/a	MSV1395
Run #2	U28288.D	10000	05/05/15	GK	n/a	n/a	MSU1175

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	500	100	ug/l	
107-02-8	Acrolein	ND	1300	550	ug/l	
107-13-1	Acrylonitrile	ND	250	110	ug/l	
71-43-2	Benzene	1110000 [a]	5000	2700	ug/l	
108-86-1	Bromobenzene	ND	250	13	ug/l	
74-97-5	Bromochloromethane	ND	250	18	ug/l	
75-27-4	Bromodichloromethane	ND	50	8.9	ug/l	
75-25-2	Bromoform	ND	50	20	ug/l	
74-83-9	Bromomethane	ND	100	39	ug/l	
78-93-3	2-Butanone (MEK)	ND	250	150	ug/l	
104-51-8	n-Butylbenzene	ND	250	25	ug/l	
135-98-8	sec-Butylbenzene	ND	250	25	ug/l	
98-06-6	tert-Butylbenzene	ND	250	29	ug/l	
75-15-0	Carbon disulfide	ND	250	9.3	ug/l	
56-23-5	Carbon tetrachloride	ND	50	17	ug/l	
108-90-7	Chlorobenzene	ND	50	12	ug/l	
75-00-3	Chloroethane	ND	100	25	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	250	63	ug/l	
67-66-3	Chloroform	ND	50	20	ug/l	
74-87-3	Chloromethane	ND	100	24	ug/l	
95-49-8	o-Chlorotoluene	ND	250	30	ug/l	
106-43-4	p-Chlorotoluene	ND	250	23	ug/l	
124-48-1	Dibromochloromethane	ND	50	11	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	50	12	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	50	12	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	50	19	ug/l	
75-71-8	Dichlorodifluoromethane	ND	100	27	ug/l	
75-34-3	1,1-Dichloroethane	ND	50	14	ug/l	
107-06-2	1,2-Dichloroethane	ND	50	15	ug/l	
75-35-4	1,1-Dichloroethene	ND	50	14	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	50	16	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	50	24	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW7-ROX-042115		
Lab Sample ID:	MC38167-4	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	100	11	ug/l	
142-28-9	1,3-Dichloropropane	ND	250	14	ug/l	
594-20-7	2,2-Dichloropropane	ND	250	84	ug/l	
563-58-6	1,1-Dichloropropene	ND	250	12	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	25	13	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	25	22	ug/l	
123-91-1	1,4-Dioxane [b]	ND	1300	1000	ug/l	
97-63-2	Ethyl methacrylate	ND	250	25	ug/l	
100-41-4	Ethylbenzene	82.2	50	12	ug/l	
87-68-3	Hexachlorobutadiene	ND	250	23	ug/l	
591-78-6	2-Hexanone	ND	250	130	ug/l	
98-82-8	Isopropylbenzene	ND	250	13	ug/l	
99-87-6	p-Isopropyltoluene	ND	250	16	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	50	17	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	38	ug/l	
74-95-3	Methylene bromide	ND	250	15	ug/l	
75-09-2	Methylene chloride	ND	100	13	ug/l	
91-20-3	Naphthalene	ND	250	100	ug/l	
103-65-1	n-Propylbenzene	ND	250	15	ug/l	
100-42-5	Styrene	ND	250	14	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	50	12	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	15	ug/l	
127-18-4	Tetrachloroethene	ND	50	10	ug/l	
108-88-3	Toluene	295	50	15	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	250	39	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	250	37	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	50	21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	50	16	ug/l	
79-01-6	Trichloroethene	ND	50	12	ug/l	
75-69-4	Trichlorofluoromethane	ND	50	24	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	250	20	ug/l	
95-63-6	1,2,4-Trimethylbenzene	79.1	250	14	ug/l	J
108-67-8	1,3,5-Trimethylbenzene	17.4	250	10	ug/l	J
108-05-4	Vinyl Acetate	ND	250	72	ug/l	
75-01-4	Vinyl chloride	ND	50	23	ug/l	
	m,p-Xylene	116	50	23	ug/l	
95-47-6	o-Xylene	35.7	50	11	ug/l	J
1330-20-7	Xylene (total)	152	50	11	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW7-ROX-042115		
Lab Sample ID:	MC38167-4	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	120%	94%	72-133%
2037-26-5	Toluene-D8	96%	109%	85-114%
460-00-4	4-Bromofluorobenzene	101%	101%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Result is from Run# 2
(b) CCV outside criteria. Sample results may be low biased.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW7-ROX-042115		
Lab Sample ID:	MC38167-4	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21864.D	1	05/05/15	KD	04/23/15	OP42788	MSW933
Run #2							

	Initial Volume	Final Volume
Run #1	990 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.5	ug/l	
95-57-8	2-Chlorophenol	ND	5.1	0.29	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.51	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.47	ug/l	
105-67-9	2,4-Dimethylphenol	1.4	10	0.34	ug/l	J
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.60	ug/l	
95-48-7	2-Methylphenol	0.37	10	0.30	ug/l	J
	3&4-Methylphenol	1.1	10	0.45	ug/l	J
88-75-5	2-Nitrophenol	ND	10	0.47	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.35	ug/l	
108-95-2	Phenol	70.7	5.1	0.32	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.46	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.45	ug/l	
62-53-3	Aniline	ND	10	0.46	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.1	0.25	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.1	0.24	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.33	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.1	0.35	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.1	0.50	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.1	0.42	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.1	0.42	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.1	0.26	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.1	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.37	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.38	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.1	0.54	ug/l	
132-64-9	Dibenzofuran	0.28	2.0	0.25	ug/l	J
84-74-2	Di-n-butyl phthalate	ND	5.1	0.27	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.1	0.29	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW7-ROX-042115		
Lab Sample ID:	MC38167-4	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.1	0.27	ug/l	
131-11-3	Dimethyl phthalate	ND	5.1	0.24	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.32	ug/l	
118-74-1	Hexachlorobenzene	ND	5.1	0.25	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.1	0.29	ug/l	
78-59-1	Isophorone	ND	5.1	0.47	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.36	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.41	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.52	ug/l	
98-95-3	Nitrobenzene	ND	5.1	0.49	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.1	0.25	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.1	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	0.25	ug/l	
110-86-1	Pyridine	ND	10	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	43%		10-79%
4165-62-2	Phenol-d5	31%		10-72%
118-79-6	2,4,6-Tribromophenol	99%		35-138%
4165-60-0	Nitrobenzene-d5	78%		30-116%
321-60-8	2-Fluorobiphenyl	73%		35-107%
1718-51-0	Terphenyl-d14	97%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW7-ROX-042115		
Lab Sample ID:	MC38167-4	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95499.D	1	05/05/15	KD	04/23/15	OP42789	MSI3572
Run #2							

	Initial Volume	Final Volume
Run #1	990 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.38	0.10	0.0076	ug/l	
208-96-8	Acenaphthylene	0.059	0.10	0.0085	ug/l	J
120-12-7	Anthracene	0.055	0.10	0.0099	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.051	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.015	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.051	0.019	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	0.022	0.10	0.013	ug/l	J
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.0075	ug/l	
86-73-7	Fluorene	0.33	0.10	0.015	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.021	ug/l	
90-12-0	1-Methylnaphthalene	8.0	2.0	0.012	ug/l	
91-57-6	2-Methylnaphthalene	10	2.0	0.011	ug/l	
85-01-8	Phenanthrene	0.66	0.051	0.011	ug/l	
129-00-0	Pyrene	0.057	0.10	0.0086	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	78%		26-121%
321-60-8	2-Fluorobiphenyl	66%		28-107%
1718-51-0	Terphenyl-d14	91%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW7-ROX-042115		
Lab Sample ID:	MC38167-4	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62970.D	1	04/28/15	NK	04/24/15	OP42812	GBB3425
Run #2							

	Initial Volume	Final Volume
Run #1	36.9 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0058	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0058	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	72%		60-140%
460-00-4	Bromofluorobenzene (S)	99%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW7-ROX-042115-DUP		
Lab Sample ID:	MC38167-5	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38789.D	50	05/05/15	KD	n/a	n/a	MSV1395
Run #2	U28289.D	10000	05/05/15	GK	n/a	n/a	MSU1175

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	500	100	ug/l	
107-02-8	Acrolein	ND	1300	550	ug/l	
107-13-1	Acrylonitrile	ND	250	110	ug/l	
71-43-2	Benzene	1160000 [a]	5000	2700	ug/l	
108-86-1	Bromobenzene	ND	250	13	ug/l	
74-97-5	Bromochloromethane	ND	250	18	ug/l	
75-27-4	Bromodichloromethane	ND	50	8.9	ug/l	
75-25-2	Bromoform	ND	50	20	ug/l	
74-83-9	Bromomethane	ND	100	39	ug/l	
78-93-3	2-Butanone (MEK)	ND	250	150	ug/l	
104-51-8	n-Butylbenzene	ND	250	25	ug/l	
135-98-8	sec-Butylbenzene	ND	250	25	ug/l	
98-06-6	tert-Butylbenzene	ND	250	29	ug/l	
75-15-0	Carbon disulfide	ND	250	9.3	ug/l	
56-23-5	Carbon tetrachloride	ND	50	17	ug/l	
108-90-7	Chlorobenzene	ND	50	12	ug/l	
75-00-3	Chloroethane	ND	100	25	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	250	63	ug/l	
67-66-3	Chloroform	ND	50	20	ug/l	
74-87-3	Chloromethane	ND	100	24	ug/l	
95-49-8	o-Chlorotoluene	ND	250	30	ug/l	
106-43-4	p-Chlorotoluene	ND	250	23	ug/l	
124-48-1	Dibromochloromethane	ND	50	11	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	50	12	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	50	12	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	50	19	ug/l	
75-71-8	Dichlorodifluoromethane	ND	100	27	ug/l	
75-34-3	1,1-Dichloroethane	ND	50	14	ug/l	
107-06-2	1,2-Dichloroethane	ND	50	15	ug/l	
75-35-4	1,1-Dichloroethene	ND	50	14	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	50	16	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	50	24	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW7-ROX-042115-DUP		
Lab Sample ID:	MC38167-5	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	100	11	ug/l	
142-28-9	1,3-Dichloropropane	ND	250	14	ug/l	
594-20-7	2,2-Dichloropropane	ND	250	84	ug/l	
563-58-6	1,1-Dichloropropene	ND	250	12	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	25	13	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	25	22	ug/l	
123-91-1	1,4-Dioxane [b]	ND	1300	1000	ug/l	
97-63-2	Ethyl methacrylate	ND	250	25	ug/l	
100-41-4	Ethylbenzene	81.0	50	12	ug/l	
87-68-3	Hexachlorobutadiene	ND	250	23	ug/l	
591-78-6	2-Hexanone	ND	250	130	ug/l	
98-82-8	Isopropylbenzene	ND	250	13	ug/l	
99-87-6	p-Isopropyltoluene	ND	250	16	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	50	17	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	38	ug/l	
74-95-3	Methylene bromide	ND	250	15	ug/l	
75-09-2	Methylene chloride	ND	100	13	ug/l	
91-20-3	Naphthalene	ND	250	100	ug/l	
103-65-1	n-Propylbenzene	ND	250	15	ug/l	
100-42-5	Styrene	ND	250	14	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	50	12	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	15	ug/l	
127-18-4	Tetrachloroethene	ND	50	10	ug/l	
108-88-3	Toluene	285	50	15	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	250	39	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	250	37	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	50	21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	50	16	ug/l	
79-01-6	Trichloroethene	ND	50	12	ug/l	
75-69-4	Trichlorofluoromethane	ND	50	24	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	250	20	ug/l	
95-63-6	1,2,4-Trimethylbenzene	78.4	250	14	ug/l	J
108-67-8	1,3,5-Trimethylbenzene	17.3	250	10	ug/l	J
108-05-4	Vinyl Acetate	ND	250	72	ug/l	
75-01-4	Vinyl chloride	ND	50	23	ug/l	
	m,p-Xylene	116	50	23	ug/l	
95-47-6	o-Xylene	36.9	50	11	ug/l	J
1330-20-7	Xylene (total)	153	50	11	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW7-ROX-042115-DUP		
Lab Sample ID:	MC38167-5	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	119%	98%	72-133%
2037-26-5	Toluene-D8	96%	96%	85-114%
460-00-4	4-Bromofluorobenzene	102%	102%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Result is from Run# 2
(b) CCV outside criteria. Sample results may be low biased.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW7-ROX-042115-DUP		
Lab Sample ID:	MC38167-5	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W21865.D	1	05/05/15	KD	04/23/15	OP42788	MSW933
Run #2							

	Initial Volume	Final Volume
Run #1	990 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.5	ug/l	
95-57-8	2-Chlorophenol	ND	5.1	0.29	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.51	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.47	ug/l	
105-67-9	2,4-Dimethylphenol	1.2	10	0.34	ug/l	J
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.60	ug/l	
95-48-7	2-Methylphenol	0.32	10	0.30	ug/l	J
	3&4-Methylphenol	1.1	10	0.45	ug/l	J
88-75-5	2-Nitrophenol	ND	10	0.47	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.35	ug/l	
108-95-2	Phenol	76.6	5.1	0.32	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.46	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.45	ug/l	
62-53-3	Aniline	ND	10	0.46	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.1	0.25	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.1	0.24	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.33	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.1	0.35	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.1	0.50	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.1	0.42	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.1	0.42	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.1	0.26	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.1	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.37	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.38	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.1	0.54	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.1	0.27	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.1	0.29	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW7-ROX-042115-DUP		
Lab Sample ID:	MC38167-5	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.1	0.27	ug/l	
131-11-3	Dimethyl phthalate	ND	5.1	0.24	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	0.33	2.0	0.32	ug/l	J
118-74-1	Hexachlorobenzene	ND	5.1	0.25	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.1	0.29	ug/l	
78-59-1	Isophorone	ND	5.1	0.47	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.36	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.41	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.52	ug/l	
98-95-3	Nitrobenzene	ND	5.1	0.49	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.1	0.25	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.1	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	0.25	ug/l	
110-86-1	Pyridine	ND	10	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	41%		10-79%
4165-62-2	Phenol-d5	31%		10-72%
118-79-6	2,4,6-Tribromophenol	96%		35-138%
4165-60-0	Nitrobenzene-d5	73%		30-116%
321-60-8	2-Fluorobiphenyl	66%		35-107%
1718-51-0	Terphenyl-d14	92%		43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW7-ROX-042115-DUP		
Lab Sample ID:	MC38167-5	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8270D BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I95511.D	1	05/06/15	KD	04/23/15	OP42789	MSI3573
Run #2							

	Initial Volume	Final Volume
Run #1	990 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.36	0.10	0.0076	ug/l	
208-96-8	Acenaphthylene	0.053	0.10	0.0085	ug/l	J
120-12-7	Anthracene	0.050	0.10	0.0099	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.051	0.024	ug/l	
50-32-8	Benzo(a)pyrene	0.024	0.10	0.015	ug/l	J
205-99-2	Benzo(b)fluoranthene	ND	0.051	0.019	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.018	0.10	0.013	ug/l	J
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	0.028	0.10	0.013	ug/l	J
53-70-3	Dibenzo(a,h)anthracene	0.016	0.10	0.015	ug/l	J
206-44-0	Fluoranthene	0.026	0.10	0.0075	ug/l	J
86-73-7	Fluorene	0.30	0.10	0.015	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.021	ug/l	
90-12-0	1-Methylnaphthalene	7.4	2.0	0.012	ug/l	
91-57-6	2-Methylnaphthalene	9.3	2.0	0.011	ug/l	
85-01-8	Phenanthrene	0.63	0.051	0.011	ug/l	
129-00-0	Pyrene	0.066	0.10	0.0086	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	75%		26-121%
321-60-8	2-Fluorobiphenyl	61%		28-107%
1718-51-0	Terphenyl-d14	97%		29-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW7-ROX-042115-DUP		
Lab Sample ID:	MC38167-5	Date Sampled:	04/21/15
Matrix:	AQ - Ground Water	Date Received:	04/22/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62971.D	1	04/28/15	NK	04/24/15	OP42812	GBB3425
Run #2							

	Initial Volume	Final Volume
Run #1	38.2 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.0056	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0056	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	75%		60-140%
460-00-4	Bromofluorobenzene (S)	102%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-042115-HCL		
Lab Sample ID:	MC38167-6	Date Sampled:	04/21/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/22/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V38773.D	1	05/05/15	KD	n/a	n/a	MSV1395
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-042115-HCL		
Lab Sample ID:	MC38167-6	Date Sampled:	04/21/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/22/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane [a]	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-042115-HCL		
Lab Sample ID:	MC38167-6	Date Sampled:	04/21/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/22/15
Method:	SW846 8260C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	119%		72-133%
2037-26-5	Toluene-D8	101%		85-114%
460-00-4	4-Bromofluorobenzene	102%		70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) CCV outside criteria. Sample results may be low biased.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-042115-ST		
Lab Sample ID:	MC38167-7	Date Sampled:	04/21/15
Matrix:	AQ - Trip Blank Water	Date Received:	04/22/15
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB62972.D	1	04/28/15	NK	04/24/15	OP42812	GBB3425
Run #2							

	Initial Volume	Final Volume
Run #1	36.1 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.0059	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.0059	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	81%		60-140%
460-00-4	Bromofluorobenzene (S)	107%		60-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

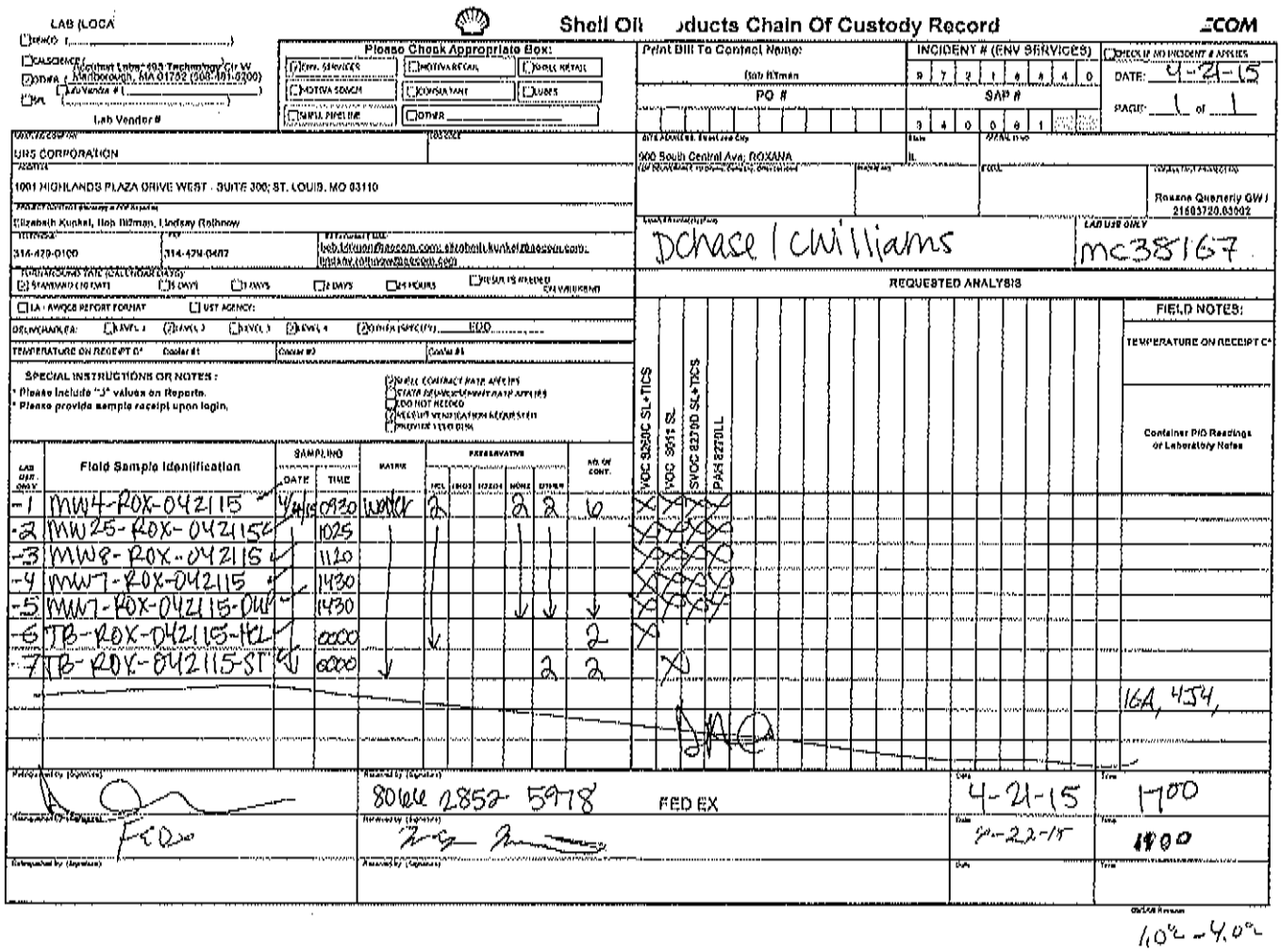
Misc. Forms

G

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



Shell Oil Products Chain Of Custody Record

ECOM

LAB (LOCA
[ ] (ENCO: (_____)
[ ] CALSCIENCE (Calscience Labs: 4765 Technology Cir W, Modesto, CA 95358 (209-491-0700))
[x] ONTEA (Contea Labs: 180 Technology Dr W, Marlborough, MA 01752 (508-481-6200))
[ ] Other (Lab Vendor # (_____))
Lab Vendor #

Please Check Appropriate Box:
[x] Env. Services [ ] Motiva Recall [ ] Shell Retail
[ ] Motiva Branch [ ] Consultant [ ] Duke
[ ] Sample Pipeline [ ] Other

Print Bill To Contact Name: Bob Hitman
PO #
INCIDENT # (ENV SERVICES): 9 7 2 1 9 4 4 0
SAP #: 3 4 0 0 0 1
[ ] Check if no incident # applies
DATE: 4-21-15
PAGE: 1 of 1

CONTRACTOR: URS CORPORATION
ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300; ST. LOUIS, MO 63110
PROJECT CONTACT (Hardcopy or PDF Report to): Elizabeth Kunkel, Bob Hitman, Lindsay Robinow
TELEPHONE: 314-429-0100 FAX: 314-429-0462 E-MAIL: bob.hitman@aecom.com; elizabeth.kunkel@aecom.com; lindsay.robinow@aecom.com
SITE ADDRESS, Road Ave, City: 900 South Central Ave; ROXANA
State: IL
ZIP CODE:
GLOBAL ID NO:
PROJECT NO: 21603720.03002
Roxana Quarterly GW I
Lead Consultant (Name): DChase / CWilliams
LAB USE ONLY: MC38167

TURNAROUND TIME (CALENDAR DAYS): [x] STANDARD (10 DAYS) [ ] 5 DAYS [ ] 3 DAYS [ ] 2 DAYS [ ] 24 HOURS [ ] RESULTS NEEDED ON WEEKEND
[ ] LA - RWQCB REPORT FORMAT [ ] UST AGENCY:
DELIVERABLE(S): [ ] LEVEL 2 [ ] LEVEL 3 [ ] LEVEL 4 [x] OTHER (SPECIFY) EDD

TEMPERATURE ON RECEIPT C° Cooler #1 Cooler #2 Cooler #3 Cooler #4

SPECIAL INSTRUCTIONS OR NOTES:
* Please include "J" values on Reports.
* Please provide sample receipt upon login.
[x] SHELL CONTRACT RATE APPLIES
[ ] STATE REIMBURSEMENT RATE APPLIES
[ ] DO NOT RESPOND
[ ] RESULT VERIFICATION REQUIRED
[ ] PROVIDE LEVEL IV QC

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE: HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	8260C SL+TICS	8015 SL	8270D SL+TICS	PAH 8270LL	FIELD NOTES:
-1	MW4-ROX-042115	4/15	0920	WATER	2			2	2	6	X				TEMPERATURE ON RECEIPT C°
-2	MW25-ROX-042115		1025												
-3	MW8-ROX-042115		1120												
-4	MW7-ROX-042115		1430												
-5	MW7-ROX-042115-DUP		1430												
-6	TB-ROX-042115-HCL		0000							2	X				
-7	TB-ROX-042115-ST		0000					2	2		X				
															16A, 45J,

Container P/D Readings or Laboratory Notes

Relinquished by (Sampler)	Received by (Signature)	Date	Time
FED EX	8016 2852 5978 FED EX	4-21-15	1700
Relinquished by (Signature)	Received by (Signature)	Date	Time
		4-22-15	1100
Relinquished by (Signature)	Received by (Signature)	Date	Time

10°C - 4.0°C

5.1

MC38167: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC38167 Client: URS Project: 900 SOUTH CENTRAL

Date / Time Received: 4/22/2015 11:00:00 AM Delivery Method: Airbill #'s:

Cooler Temps (Initial/Adjusted): #1: (1/1); #2: (4/4);

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	☑ ☐	3. COC Present:	☑ ☐
2. Custody Seals Intact:	☑ ☐	4. Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Thermometer ID:	G1;
3. Cooler media:	Ice (Bag)
4. No. Coolers:	2

Quality Control Preservation	Y or N	N/A
1. Trip Blank present / cooler:	☑ ☐	☐
2. Trip Blank listed on COC:	☑ ☐	☐
3. Samples preserved properly:	☑ ☐	
4. VOCs headspace free:	☑ ☐	☐

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	☑ ☐
2. Container labeling complete:	☑ ☐
3. Sample container label / COC agree:	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	☑ ☐
2. All containers accounted for:	☑ ☐
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear:	☑ ☐	
2. Bottles received for unspecified tests	☐ ☑	
3. Sufficient volume recvd for analysis:	☑ ☐	
4. Compositing instructions clear:	☐ ☐	☑
5. Filtering instructions clear:	☐ ☐	☑

Comments

Accutest Laboratories
V:(508) 481-6200
495 Technology Center West, Bldg One
F: (508) 481-7753
Marlborough, MA 01752
www.accutest.com

MC38167: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC38167

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC38167-1 Collected: 21-APR-15 09:30 By: DCCW Received: 22-APR-15 By: MW4-ROX-042115						
MC38167-1	SW846 8011	28-APR-15 07:13	NK	24-APR-15	AW	V8011SL
MC38167-1	SW846 8270D	05-MAY-15 14:34	KD	23-APR-15	FC	AB8270SL+
MC38167-1	SW846 8260C	05-MAY-15 17:35	KD			V8260SL+
MC38167-1	SW846 8270D BY SIM	05-MAY-15 18:37	KD	23-APR-15	FC	B8270SIMSL
MC38167-1	SW846 8260C	05-MAY-15 22:09	JB			V8260SL+
MC38167-2 Collected: 21-APR-15 10:25 By: DCCW Received: 22-APR-15 By: MW25-ROX-042115						
MC38167-2	SW846 8011	28-APR-15 07:42	NK	24-APR-15	AW	V8011SL
MC38167-2	SW846 8260C	05-MAY-15 07:54	KD			V8260SL+
MC38167-2	SW846 8260C	05-MAY-15 14:09	GK			V8260SL+
MC38167-2	SW846 8270D	05-MAY-15 14:58	KD	23-APR-15	FC	AB8270SL+
MC38167-2	SW846 8270D BY SIM	05-MAY-15 19:01	KD	23-APR-15	FC	B8270SIMSL
MC38167-3 Collected: 21-APR-15 11:20 By: DCCW Received: 22-APR-15 By: MW8-ROX-042115						
MC38167-3	SW846 8011	28-APR-15 08:10	NK	24-APR-15	AW	V8011SL
MC38167-3	SW846 8260C	05-MAY-15 08:22	KD			V8260SL+
MC38167-3	SW846 8260C	05-MAY-15 14:37	GK			V8260SL+
MC38167-3	SW846 8270D	05-MAY-15 15:23	KD	23-APR-15	FC	AB8270SL+
MC38167-3	SW846 8270D BY SIM	06-MAY-15 11:02	KD	23-APR-15	FC	B8270SIMSL
MC38167-4 Collected: 21-APR-15 14:30 By: DCCW Received: 22-APR-15 By: MW7-ROX-042115						
MC38167-4	SW846 8011	28-APR-15 08:37	NK	24-APR-15	AW	V8011SL
MC38167-4	SW846 8260C	05-MAY-15 08:50	KD			V8260SL+
MC38167-4	SW846 8260C	05-MAY-15 15:04	GK			V8260SL+
MC38167-4	SW846 8270D	05-MAY-15 15:47	KD	23-APR-15	FC	AB8270SL+
MC38167-4	SW846 8270D BY SIM	05-MAY-15 19:48	KD	23-APR-15	FC	B8270SIMSL
MC38167-5 Collected: 21-APR-15 14:30 By: DCCW Received: 22-APR-15 By: MW7-ROX-042115-DUP						
MC38167-5	SW846 8011	28-APR-15 09:05	NK	24-APR-15	AW	V8011SL

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC38167

URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC38167-5	SW846 8260C	05-MAY-15 09:19	KD			V8260SL+
MC38167-5	SW846 8260C	05-MAY-15 15:32	GK			V8260SL+
MC38167-5	SW846 8270D	05-MAY-15 16:12	KD	23-APR-15	FC	AB8270SL+
MC38167-5	SW846 8270D BY SIM	06-MAY-15 11:25	KD	23-APR-15	FC	B8270SIMSL
MC38167-6 Collected: 21-APR-15 00:00 By: DCCW Received: 22-APR-15 By: TB-ROX-042115-HCL						
MC38167-6	SW846 8260C	05-MAY-15 01:44	KD			V8260SL+
MC38167-7 Collected: 21-APR-15 00:00 By: DCCW Received: 22-APR-15 By: TB-ROX-042115-ST						
MC38167-7	SW846 8011	28-APR-15 09:33	NK	24-APR-15	AW	V8011SL

Accutest Internal Chain of Custody

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Received: 04/22/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC38167-1.2	Walk In Ref #22	Alireza Zeighami	04/23/15 11:28	Retrieve from Storage
MC38167-1.2	Alireza Zeighami		04/28/15 07:05	Depleted
MC38167-1.3	VOC Ref #4	Krysten Dufort	05/05/15 15:41	Retrieve from Storage
MC38167-1.3	Krysten Dufort	GCMSV	05/05/15 15:41	Load on Instrument
MC38167-1.3	GCMSV	Krysten Dufort	05/06/15 12:42	Unload from Instrument
MC38167-1.3	Krysten Dufort	VOC Ref #4	05/06/15 12:42	Return to Storage
MC38167-1.4	VOC Ref #4	Krysten Dufort	05/04/15 16:54	Retrieve from Storage
MC38167-1.4	Krysten Dufort	GCMSV	05/04/15 16:54	Load on Instrument
MC38167-1.4	GCMSV	Krysten Dufort	05/05/15 13:18	Unload from Instrument
MC38167-1.4	Krysten Dufort	VOC Ref #4	05/05/15 13:18	Return to Storage
MC38167-1.5	VOC Ref #4	Nicole Estey	04/24/15 14:33	Retrieve from Storage
MC38167-1.5	Nicole Estey		04/27/15 21:48	Depleted
MC38167-2.2	Walk In Ref #22	Alireza Zeighami	04/23/15 11:28	Retrieve from Storage
MC38167-2.2	Alireza Zeighami		04/28/15 07:05	Depleted
MC38167-2.3	VOC Ref #4	Krysten Dufort	05/04/15 16:54	Retrieve from Storage
MC38167-2.3	Krysten Dufort	GCMSV	05/04/15 16:54	Load on Instrument
MC38167-2.3	GCMSV	Krysten Dufort	05/05/15 13:18	Unload from Instrument
MC38167-2.3	Krysten Dufort	VOC Ref #4	05/05/15 13:18	Return to Storage
MC38167-2.4	VOC Ref #4	Gary Krasinski	05/05/15 13:20	Retrieve from Storage
MC38167-2.4	Gary Krasinski	GCMSU	05/05/15 13:20	Load on Instrument
MC38167-2.4	GCMSU	Gary Krasinski	05/06/15 11:05	Unload from Instrument
MC38167-2.4	Gary Krasinski	VOC Ref #4	05/06/15 11:05	Return to Storage
MC38167-2.5	VOC Ref #4	Nicole Estey	04/24/15 14:33	Retrieve from Storage
MC38167-2.5	Nicole Estey		04/27/15 21:48	Depleted
MC38167-3.2	Walk In Ref #22	Alireza Zeighami	04/23/15 11:28	Retrieve from Storage
MC38167-3.2	Alireza Zeighami		04/28/15 07:05	Depleted
MC38167-3.3	VOC Ref #4	Krysten Dufort	05/04/15 16:54	Retrieve from Storage
MC38167-3.3	Krysten Dufort	GCMSV	05/04/15 16:54	Load on Instrument
MC38167-3.3	GCMSV	Krysten Dufort	05/05/15 13:18	Unload from Instrument
MC38167-3.3	Krysten Dufort	VOC Ref #4	05/05/15 13:18	Return to Storage
MC38167-3.4	VOC Ref #4	Gary Krasinski	05/05/15 13:20	Retrieve from Storage
MC38167-3.4	Gary Krasinski	GCMSU	05/05/15 13:20	Load on Instrument
MC38167-3.4	GCMSU	Gary Krasinski	05/06/15 11:05	Unload from Instrument
MC38167-3.4	Gary Krasinski	VOC Ref #4	05/06/15 11:05	Return to Storage

5.3

Accutest Internal Chain of Custody

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL
Received: 04/22/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC38167-3.6	VOC Ref #4	Nicole Estey	04/24/15 14:33	Retrieve from Storage
MC38167-3.6	Nicole Estey		04/27/15 21:48	Depleted
MC38167-4.2	Walk In Ref #22	Alireza Zeighami	04/23/15 11:28	Retrieve from Storage
MC38167-4.2	Alireza Zeighami		04/28/15 07:05	Depleted
MC38167-4.3	VOC Ref #4	Krysten Dufort	05/04/15 16:54	Retrieve from Storage
MC38167-4.3	Krysten Dufort	GCMSV	05/04/15 16:54	Load on Instrument
MC38167-4.3	GCMSV	Krysten Dufort	05/05/15 13:18	Unload from Instrument
MC38167-4.3	Krysten Dufort	VOC Ref #4	05/05/15 13:18	Return to Storage
MC38167-4.4	VOC Ref #4	Gary Krasinski	05/05/15 13:20	Retrieve from Storage
MC38167-4.4	Gary Krasinski	GCMSU	05/05/15 13:20	Load on Instrument
MC38167-4.4	GCMSU	Gary Krasinski	05/06/15 11:05	Unload from Instrument
MC38167-4.4	Gary Krasinski	VOC Ref #4	05/06/15 11:05	Return to Storage
MC38167-4.6	VOC Ref #4	Nicole Estey	04/24/15 14:33	Retrieve from Storage
MC38167-4.6	Nicole Estey		04/27/15 21:48	Depleted
MC38167-5.2	Walk In Ref #22	Alireza Zeighami	04/23/15 11:28	Retrieve from Storage
MC38167-5.2	Alireza Zeighami		04/28/15 07:05	Depleted
MC38167-5.3	VOC Ref #4	Krysten Dufort	05/04/15 16:54	Retrieve from Storage
MC38167-5.3	Krysten Dufort	GCMSV	05/04/15 16:54	Load on Instrument
MC38167-5.3	GCMSV	Krysten Dufort	05/05/15 13:18	Unload from Instrument
MC38167-5.3	Krysten Dufort	VOC Ref #4	05/05/15 13:18	Return to Storage
MC38167-5.4	VOC Ref #4	Gary Krasinski	05/05/15 13:20	Retrieve from Storage
MC38167-5.4	Gary Krasinski	GCMSU	05/05/15 13:20	Load on Instrument
MC38167-5.4	GCMSU	Gary Krasinski	05/06/15 11:05	Unload from Instrument
MC38167-5.4	Gary Krasinski	VOC Ref #4	05/06/15 11:05	Return to Storage
MC38167-5.6	VOC Ref #4	Nicole Estey	04/24/15 14:33	Retrieve from Storage
MC38167-5.6	Nicole Estey		04/27/15 21:48	Depleted
MC38167-6.2	VOC Ref #4	Krysten Dufort	05/04/15 16:54	Retrieve from Storage
MC38167-6.2	Krysten Dufort	GCMSV	05/04/15 16:54	Load on Instrument
MC38167-6.2	GCMSV	Krysten Dufort	05/05/15 13:18	Unload from Instrument
MC38167-6.2	Krysten Dufort	VOC Ref #4	05/05/15 13:18	Return to Storage
MC38167-7.2	VOC Ref #4	Nicole Estey	04/24/15 14:33	Retrieve from Storage
MC38167-7.2	Nicole Estey		04/27/15 21:48	Depleted

New England ACCUTEST LABORATORIES

GC/MS Volatiles

6

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1395-MB	V38772.D	1	05/05/15	KD	n/a	n/a	MSV1395

The QC reported here applies to the following samples: Method: SW846 8260C

MC38167-2, MC38167-3, MC38167-4, MC38167-5, MC38167-6

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
71-43-2	Benzene	ND	0.50	0.27	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	

6.1.1

Method Blank Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1395-MB	V38772.D	1	05/05/15	KD	n/a	n/a	MSV1395

The QC reported here applies to the following samples: Method: SW846 8260C

MC38167-2, MC38167-3, MC38167-4, MC38167-5, MC38167-6

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

Method Blank Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1395-MB	V38772.D	1	05/05/15	KD	n/a	n/a	MSV1395

The QC reported here applies to the following samples: Method: SW846 8260C

MC38167-2, MC38167-3, MC38167-4, MC38167-5, MC38167-6

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	113%	72-133%
2037-26-5	Toluene-D8	101%	85-114%
460-00-4	4-Bromofluorobenzene	104%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

5.1.1

Method Blank Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSU1175-MB	U28285.D	1	05/05/15	GK	n/a	n/a	MSU1175

The QC reported here applies to the following samples: Method: SW846 8260C

MC38167-2, MC38167-3, MC38167-4, MC38167-5

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.27	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	97%	72-133%
2037-26-5	Toluene-D8	98%	85-114%
460-00-4	4-Bromofluorobenzene	100%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

6.1.2

Method Blank Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP2776-MB	P84694.D	1	05/05/15	JB	n/a	n/a	MSP2776

The QC reported here applies to the following samples: Method: SW846 8260C

MC38167-1

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.27	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	105%	72-133%
2037-26-5	Toluene-D8	99%	85-114%
460-00-4	4-Bromofluorobenzene	113%	70-134%

6.1.3

Method Blank Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1396-MB	V38802.D	1	05/05/15	KD	n/a	n/a	MSV1396

The QC reported here applies to the following samples: Method: SW846 8260C

MC38167-1

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.0	ug/l	
107-02-8	Acrolein	ND	25	11	ug/l	
107-13-1	Acrylonitrile	ND	5.0	2.3	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.18	ug/l	
75-25-2	Bromoform	ND	1.0	0.39	ug/l	
74-83-9	Bromomethane	ND	2.0	0.79	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	3.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.57	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.49	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.40	ug/l	
74-87-3	Chloromethane	ND	2.0	0.49	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.60	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.46	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.24	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.37	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.53	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.28	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.48	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.29	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.7	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.23	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.27	ug/l	

Method Blank Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1396-MB	V38802.D	1	05/05/15	KD	n/a	n/a	MSV1396

The QC reported here applies to the following samples: Method: SW846 8260C

MC38167-1

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	25	20	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.24	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.45	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.7	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.32	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.77	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.29	ug/l	
100-42-5	Styrene	ND	5.0	0.28	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.29	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.29	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.78	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.74	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.39	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.29	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.20	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.4	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.45	ug/l	
	m,p-Xylene	ND	1.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

Method Blank Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1396-MB	V38802.D	1	05/05/15	KD	n/a	n/a	MSV1396

The QC reported here applies to the following samples: Method: SW846 8260C

MC38167-1

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	122%	72-133%
2037-26-5	Toluene-D8	103%	85-114%
460-00-4	4-Bromofluorobenzene	101%	70-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1395-BS	V38769.D	1	05/04/15	KD	n/a	n/a	MSV1395

The QC reported here applies to the following samples: Method: SW846 8260C

MC38167-2, MC38167-3, MC38167-4, MC38167-5, MC38167-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	56.4	113	14-172
107-02-8	Acrolein	250	190	76	10-168
107-13-1	Acrylonitrile	50	44.1	88	41-158
71-43-2	Benzene	50	39.6	79	68-127
108-86-1	Bromobenzene	50	53.4	107	74-124
74-97-5	Bromochloromethane	50	42.6	85	68-135
75-27-4	Bromodichloromethane	50	59.1	118	72-144
75-25-2	Bromoform	50	49.1	98	59-147
74-83-9	Bromomethane	50	60.3	121	34-175
78-93-3	2-Butanone (MEK)	50	45.3	91	43-147
104-51-8	n-Butylbenzene	50	53.3	107	77-136
135-98-8	sec-Butylbenzene	50	54.5	109	75-134
98-06-6	tert-Butylbenzene	50	56.3	113	74-132
75-15-0	Carbon disulfide	50	22.7	45	34-171
56-23-5	Carbon tetrachloride	50	51.3	103	55-153
108-90-7	Chlorobenzene	50	51.2	102	71-123
75-00-3	Chloroethane	50	53.8	108	58-175
110-75-8	2-Chloroethyl vinyl ether	50	43.6	87	44-169
67-66-3	Chloroform	50	50.8	102	67-136
74-87-3	Chloromethane	50	48.3	97	25-182
95-49-8	o-Chlorotoluene	50	54.4	109	72-130
106-43-4	p-Chlorotoluene	50	54.9	110	73-127
124-48-1	Dibromochloromethane	50	51.3	103	73-139
95-50-1	1,2-Dichlorobenzene	50	50.4	101	77-125
541-73-1	1,3-Dichlorobenzene	50	51.7	103	77-124
106-46-7	1,4-Dichlorobenzene	50	50.3	101	73-128
75-71-8	Dichlorodifluoromethane	50	64.7	129	23-157
75-34-3	1,1-Dichloroethane	50	41.2	82	63-145
107-06-2	1,2-Dichloroethane	50	55.8	112	58-145
75-35-4	1,1-Dichloroethene	50	28.9	58	56-158
156-59-2	cis-1,2-Dichloroethene	50	40.4	81	67-133
156-60-5	trans-1,2-Dichloroethene	50	33.3	67	66-136
78-87-5	1,2-Dichloropropane	50	50.5	101	75-133
142-28-9	1,3-Dichloropropane	50	50.6	101	70-127
594-20-7	2,2-Dichloropropane	50	39.2	78	52-163
563-58-6	1,1-Dichloropropene	50	42.5	85	77-140

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1395-BS	V38769.D	1	05/04/15	KD	n/a	n/a	MSV1395

The QC reported here applies to the following samples: Method: SW846 8260C

MC38167-2, MC38167-3, MC38167-4, MC38167-5, MC38167-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-01-5	cis-1,3-Dichloropropene	50	48.0	96	74-141
10061-02-6	trans-1,3-Dichloropropene	50	51.8	104	77-143
123-91-1	1,4-Dioxane	250	176	70	30-182
97-63-2	Ethyl methacrylate	50	50.2	100	64-131
100-41-4	Ethylbenzene	50	54.2	108	71-129
87-68-3	Hexachlorobutadiene	50	47.9	96	64-146
591-78-6	2-Hexanone	50	49.2	98	22-163
98-82-8	Isopropylbenzene	50	56.0	112	72-133
99-87-6	p-Isopropyltoluene	50	54.9	110	77-134
1634-04-4	Methyl Tert Butyl Ether	50	47.6	95	46-151
108-10-1	4-Methyl-2-pentanone (MIBK)	50	52.2	104	47-145
74-95-3	Methylene bromide	50	53.5	107	70-132
75-09-2	Methylene chloride	50	33.6	67	55-146
91-20-3	Naphthalene	50	40.4	81	39-176
103-65-1	n-Propylbenzene	50	56.7	113	74-134
100-42-5	Styrene	50	52.6	105	71-134
630-20-6	1,1,1,2-Tetrachloroethane	50	53.2	106	70-137
79-34-5	1,1,2,2-Tetrachloroethane	50	51.3	103	58-145
127-18-4	Tetrachloroethene	50	50.2	100	63-137
108-88-3	Toluene	50	49.3	99	75-126
87-61-6	1,2,3-Trichlorobenzene	50	44.1	88	27-181
120-82-1	1,2,4-Trichlorobenzene	50	45.1	90	40-176
71-55-6	1,1,1-Trichloroethane	50	46.7	93	68-144
79-00-5	1,1,2-Trichloroethane	50	52.9	106	72-133
79-01-6	Trichloroethene	50	48.3	97	73-126
75-69-4	Trichlorofluoromethane	50	70.9	142	43-152
96-18-4	1,2,3-Trichloropropane	50	48.3	97	58-141
95-63-6	1,2,4-Trimethylbenzene	50	56.3	113	76-129
108-67-8	1,3,5-Trimethylbenzene	50	56.0	112	71-127
108-05-4	Vinyl Acetate	50	46.2	92	10-170
75-01-4	Vinyl chloride	50	52.4	105	36-167
	m,p-Xylene	100	104	104	68-130
95-47-6	o-Xylene	50	53.3	107	69-126
1330-20-7	Xylene (total)	150	158	105	67-129

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1395-BS	V38769.D	1	05/04/15	KD	n/a	n/a	MSV1395

The QC reported here applies to the following samples: Method: SW846 8260C

MC38167-2, MC38167-3, MC38167-4, MC38167-5, MC38167-6

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	107%	72-133%
2037-26-5	Toluene-D8	104%	85-114%
460-00-4	4-Bromofluorobenzene	105%	70-134%

6.2.1

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP2776-BS	P84690.D	1	05/05/15	JB	n/a	n/a	MSP2776

The QC reported here applies to the following samples: Method: SW846 8260C

MC38167-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	51.3	103	68-127

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	72-133%
2037-26-5	Toluene-D8	102%	85-114%
460-00-4	4-Bromofluorobenzene	97%	70-134%

* = Outside of Control Limits.

6.2.2

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSU1175-BS	U28279.D	1	05/05/15	GK	n/a	n/a	MSU1175
MSU1175-BSD	U28280.D	1	05/05/15	GK	n/a	n/a	MSU1175

6.3.1

The QC reported here applies to the following samples: Method: SW846 8260C

MC38167-2, MC38167-3, MC38167-4, MC38167-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	50	62.2	124	57.2	114	8	68-127/25

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	110%	99%	72-133%
2037-26-5	Toluene-D8	111%	115%* a	85-114%
460-00-4	4-Bromofluorobenzene	98%	105%	70-134%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1396-BS	V38799.D	1	05/05/15	KD	n/a	n/a	MSV1396
MSV1396-BSD	V38800.D	1	05/05/15	KD	n/a	n/a	MSV1396

The QC reported here applies to the following samples: Method: SW846 8260C

MC38167-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	63.0	126	63.8	128	1	14-172/25
107-02-8	Acrolein	250	173	69	175	70	1	10-168/25
107-13-1	Acrylonitrile	50	49.5	99	48.4	97	2	41-158/25
108-86-1	Bromobenzene	50	52.5	105	53.6	107	2	74-124/25
74-97-5	Bromochloromethane	50	46.8	94	47.5	95	1	68-135/25
75-27-4	Bromodichloromethane	50	62.5	125	63.0	126	1	72-144/25
75-25-2	Bromoform	50	48.1	96	46.8	94	3	59-147/25
74-83-9	Bromomethane	50	62.5	125	66.8	134	7	34-175/25
78-93-3	2-Butanone (MEK)	50	51.3	103	49.9	100	3	43-147/25
104-51-8	n-Butylbenzene	50	52.5	105	55.4	111	5	77-136/25
135-98-8	sec-Butylbenzene	50	53.5	107	57.2	114	7	75-134/25
98-06-6	tert-Butylbenzene	50	57.0	114	60.1	120	5	74-132/25
75-15-0	Carbon disulfide	50	35.0	70	37.6	75	7	34-171/25
56-23-5	Carbon tetrachloride	50	58.8	118	61.3	123	4	55-153/25
108-90-7	Chlorobenzene	50	51.3	103	52.4	105	2	71-123/25
75-00-3	Chloroethane	50	56.1	112	59.8	120	6	58-175/25
110-75-8	2-Chloroethyl vinyl ether	50	41.6	83	40.7	81	2	44-169/25
67-66-3	Chloroform	50	54.7	109	55.8	112	2	67-136/25
74-87-3	Chloromethane	50	52.0	104	54.6	109	5	25-182/25
95-49-8	o-Chlorotoluene	50	52.9	106	56.5	113	7	72-130/25
106-43-4	p-Chlorotoluene	50	54.9	110	57.1	114	4	73-127/25
124-48-1	Dibromochloromethane	50	51.3	103	50.6	101	1	73-139/25
95-50-1	1,2-Dichlorobenzene	50	49.4	99	51.3	103	4	77-125/25
541-73-1	1,3-Dichlorobenzene	50	50.5	101	52.6	105	4	77-124/25
106-46-7	1,4-Dichlorobenzene	50	49.6	99	51.4	103	4	73-128/25
75-71-8	Dichlorodifluoromethane	50	65.9	132	65.0	130	1	23-157/25
75-34-3	1,1-Dichloroethane	50	48.4	97	49.7	99	3	63-145/25
107-06-2	1,2-Dichloroethane	50	62.5	125	62.4	125	0	58-145/25
75-35-4	1,1-Dichloroethene	50	39.8	80	42.4	85	6	56-158/25
156-59-2	cis-1,2-Dichloroethene	50	43.8	88	45.6	91	4	67-133/25
156-60-5	trans-1,2-Dichloroethene	50	42.3	85	44.1	88	4	66-136/25
78-87-5	1,2-Dichloropropane	50	52.4	105	53.6	107	2	75-133/25
142-28-9	1,3-Dichloropropane	50	50.8	102	50.3	101	1	70-127/25
594-20-7	2,2-Dichloropropane	50	49.3	99	50.7	101	3	52-163/25
563-58-6	1,1-Dichloropropene	50	49.2	98	50.6	101	3	77-140/25
10061-01-5	cis-1,3-Dichloropropene	50	49.8	100	50.1	100	1	74-141/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1396-BS	V38799.D	1	05/05/15	KD	n/a	n/a	MSV1396
MSV1396-BSD	V38800.D	1	05/05/15	KD	n/a	n/a	MSV1396

The QC reported here applies to the following samples: Method: SW846 8260C

MC38167-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	50	53.9	108	52.9	106	2	77-143/25
123-91-1	1,4-Dioxane	250	188	75	196	78	4	30-182/25
97-63-2	Ethyl methacrylate	50	48.9	98	48.9	98	0	64-131/25
100-41-4	Ethylbenzene	50	54.4	109	55.7	111	2	71-129/25
87-68-3	Hexachlorobutadiene	50	46.7	93	49.7	99	6	64-146/25
591-78-6	2-Hexanone	50	51.8	104	52.0	104	0	22-163/25
98-82-8	Isopropylbenzene	50	53.9	108	57.6	115	7	72-133/25
99-87-6	p-Isopropyltoluene	50	53.2	106	57.2	114	7	77-134/25
1634-04-4	Methyl Tert Butyl Ether	50	50.5	101	51.7	103	2	46-151/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	51.4	103	51.5	103	0	47-145/25
74-95-3	Methylene bromide	50	57.2	114	56.7	113	1	70-132/25
75-09-2	Methylene chloride	50	41.0	82	43.0	86	5	55-146/25
91-20-3	Naphthalene	50	37.9	76	38.0	76	0	39-176/25
103-65-1	n-Propylbenzene	50	55.9	112	58.7	117	5	74-134/25
100-42-5	Styrene	50	53.1	106	53.0	106	0	71-134/25
630-20-6	1,1,1,2-Tetrachloroethane	50	52.8	106	54.4	109	3	70-137/25
79-34-5	1,1,2,2-Tetrachloroethane	50	52.1	104	52.6	105	1	58-145/25
127-18-4	Tetrachloroethene	50	50.9	102	52.3	105	3	63-137/25
108-88-3	Toluene	50	51.0	102	51.8	104	2	75-126/25
87-61-6	1,2,3-Trichlorobenzene	50	41.4	83	42.5	85	3	27-181/25
120-82-1	1,2,4-Trichlorobenzene	50	42.2	84	43.9	88	4	40-176/25
71-55-6	1,1,1-Trichloroethane	50	52.4	105	54.4	109	4	68-144/25
79-00-5	1,1,2-Trichloroethane	50	56.3	113	54.6	109	3	72-133/25
79-01-6	Trichloroethene	50	50.2	100	52.0	104	4	73-126/25
75-69-4	Trichlorofluoromethane	50	73.7	147	75.7	151	3	43-152/25
96-18-4	1,2,3-Trichloropropane	50	47.8	96	48.4	97	1	58-141/25
95-63-6	1,2,4-Trimethylbenzene	50	55.2	110	58.4	117	6	76-129/25
108-67-8	1,3,5-Trimethylbenzene	50	55.2	110	58.7	117	6	71-127/25
108-05-4	Vinyl Acetate	50	52.3	105	52.2	104	0	10-170/25
75-01-4	Vinyl chloride	50	53.5	107	57.2	114	7	36-167/25
	m,p-Xylene	100	104	104	106	106	2	68-130/25
95-47-6	o-Xylene	50	52.5	105	53.5	107	2	69-126/25
1330-20-7	Xylene (total)	150	157	105	160	107	2	67-129/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1396-BS	V38799.D	1	05/05/15	KD	n/a	n/a	MSV1396
MSV1396-BSD	V38800.D	1	05/05/15	KD	n/a	n/a	MSV1396

The QC reported here applies to the following samples: Method: SW846 8260C

MC38167-1

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	109%	108%	72-133%
2037-26-5	Toluene-D8	105%	105%	85-114%
460-00-4	4-Bromofluorobenzene	104%	106%	70-134%

6.3.2

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC38190-8MS	V38792.D	5	05/05/15	KD	n/a	n/a	MSV1395
MC38190-8MSD	V38793.D	5	05/05/15	KD	n/a	n/a	MSV1395
MC38190-8	V38775.D	1	05/05/15	KD	n/a	n/a	MSV1395

The QC reported here applies to the following samples: Method: SW846 8260C

MC38167-2, MC38167-3, MC38167-4, MC38167-5, MC38167-6

CAS No.	Compound	MC38190-8 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	3.5		250	135	53	250	141	55	4	10-135/30
107-02-8	Acrolein	ND		1250	911	73	1250	949	76	4	10-175/30
107-13-1	Acrylonitrile	ND		250	200	80	250	202	81	1	37-163/30
71-43-2	Benzene	ND		250	209	84	250	214	86	2	61-138/30
108-86-1	Bromobenzene	ND		250	262	105	250	272	109	4	71-126/30
74-97-5	Bromochloromethane	ND		250	196	78	250	207	83	5	70-136/30
75-27-4	Bromodichloromethane	ND		250	306	122	250	308	123	1	73-146/30
75-25-2	Bromoform	ND		250	219	88	250	224	90	2	54-147/30
74-83-9	Bromomethane	ND		250	287	115	250	294	118	2	20-171/30
78-93-3	2-Butanone (MEK)	ND		250	154	62	250	165	66	7	33-127/30
104-51-8	n-Butylbenzene	ND		250	259	104	250	268	107	3	69-138/30
135-98-8	sec-Butylbenzene	ND		250	265	106	250	278	111	5	71-137/30
98-06-6	tert-Butylbenzene	ND		250	275	110	250	287	115	4	68-137/30
75-15-0	Carbon disulfide	ND		250	102	41	250	107	43	5	29-178/30
56-23-5	Carbon tetrachloride	ND		250	268	107	250	272	109	1	57-155/30
108-90-7	Chlorobenzene	ND		250	256	102	250	267	107	4	69-126/30
75-00-3	Chloroethane	ND		250	246	98	250	263	105	7	57-182/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	ND	0* [a]	250	ND	0* [a]	nc	10-200/30
67-66-3	Chloroform	ND		250	256	102	250	261	104	2	66-142/30
74-87-3	Chloromethane	ND		250	251	100	250	261	104	4	18-182/30
95-49-8	o-Chlorotoluene	ND		250	273	109	250	286	114	5	60-145/30
106-43-4	p-Chlorotoluene	ND		250	278	111	250	290	116	4	64-138/30
124-48-1	Dibromochloromethane	ND		250	238	95	250	249	100	5	71-138/30
95-50-1	1,2-Dichlorobenzene	ND		250	250	100	250	258	103	3	75-125/30
541-73-1	1,3-Dichlorobenzene	ND		250	255	102	250	267	107	5	74-125/30
106-46-7	1,4-Dichlorobenzene	ND		250	250	100	250	260	104	4	72-128/30
75-71-8	Dichlorodifluoromethane	ND		250	337	135	250	340	136	1	23-159/30
75-34-3	1,1-Dichloroethane	ND		250	198	79	250	207	83	4	63-150/30
107-06-2	1,2-Dichloroethane	ND		250	290	116	250	292	117	1	57-150/30
75-35-4	1,1-Dichloroethene	ND		250	129	52* [a]	250	140	56	8	53-165/30
156-59-2	cis-1,2-Dichloroethene	ND		250	191	76	250	195	78	2	66-138/30
156-60-5	trans-1,2-Dichloroethene	ND		250	161	64* [a]	250	170	68	5	65-141/30
78-87-5	1,2-Dichloropropane	ND		250	256	102	250	263	105	3	76-136/30
142-28-9	1,3-Dichloropropane	ND		250	237	95	250	250	100	5	71-127/30
594-20-7	2,2-Dichloropropane	ND		250	129	52	250	133	53	3	33-175/30
563-58-6	1,1-Dichloropropene	ND		250	214	86	250	223	89	4	76-145/30

* = Outside of Control Limits.

6.4.1

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC38190-8MS	V38792.D	5	05/05/15	KD	n/a	n/a	MSV1395
MC38190-8MSD	V38793.D	5	05/05/15	KD	n/a	n/a	MSV1395
MC38190-8	V38775.D	1	05/05/15	KD	n/a	n/a	MSV1395

The QC reported here applies to the following samples: Method: SW846 8260C

MC38167-2, MC38167-3, MC38167-4, MC38167-5, MC38167-6

CAS No.	Compound	MC38190-8 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		250	207	83	250	217	87	5	75-137/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	232	93	250	239	96	3	77-139/30
123-91-1	1,4-Dioxane	ND		1250	1090	87	1250	1140	91	4	29-167/30
97-63-2	Ethyl methacrylate	ND		250	217	87	250	229	92	5	60-135/30
100-41-4	Ethylbenzene	ND		250	271	108	250	286	114	5	61-137/30
87-68-3	Hexachlorobutadiene	ND		250	223	89	250	233	93	4	59-141/30
591-78-6	2-Hexanone	ND		250	162	65	250	170	68	5	12-141/30
98-82-8	Isopropylbenzene	ND		250	274	110	250	288	115	5	64-141/30
99-87-6	p-Isopropyltoluene	ND		250	265	106	250	277	111	4	73-135/30
1634-04-4	Methyl Tert Butyl Ether	ND		250	193	77	250	203	81	5	34-160/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	217	87	250	224	90	3	47-143/30
74-95-3	Methylene bromide	ND		250	266	106	250	269	108	1	73-132/30
75-09-2	Methylene chloride	ND		250	159	64	250	165	66	4	52-154/30
91-20-3	Naphthalene	ND		250	168	67	250	172	69	2	21-185/30
103-65-1	n-Propylbenzene	ND		250	281	112	250	294	118	5	66-141/30
100-42-5	Styrene	ND		250	261	104	250	273	109	4	60-142/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	255	102	250	268	107	5	69-138/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	245	98	250	250	100	2	58-147/30
127-18-4	Tetrachloroethene	ND		250	240	96	250	257	103	7	60-140/30
108-88-3	Toluene	ND		250	256	102	250	263	105	3	74-131/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	183	73	250	189	76	3	12-184/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	199	80	250	205	82	3	30-175/30
71-55-6	1,1,1-Trichloroethane	ND		250	233	93	250	239	96	3	67-151/30
79-00-5	1,1,2-Trichloroethane	ND		250	270	108	250	276	110	2	73-134/30
79-01-6	Trichloroethene	ND		250	239	96	250	247	99	3	68-133/30
75-69-4	Trichlorofluoromethane	ND		250	364	146	250	374	150	3	40-159/30
96-18-4	1,2,3-Trichloropropane	ND		250	217	87	250	224	90	3	54-141/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	279	112	250	292	117	5	62-142/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	276	110	250	288	115	4	62-133/30
108-05-4	Vinyl Acetate	ND		250	220	88	250	226	90	3	10-169/30
75-01-4	Vinyl chloride	ND		250	248	99	250	263	105	6	29-176/30
	m,p-Xylene	ND		500	523	105	500	550	110	5	58-139/30
95-47-6	o-Xylene	ND		250	260	104	250	276	110	6	61-135/30
1330-20-7	Xylene (total)	ND		750	783	104	750	826	110	5	60-136/30

* = Outside of Control Limits.

6.4.1

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC38190-8MS	V38792.D	5	05/05/15	KD	n/a	n/a	MSV1395
MC38190-8MSD	V38793.D	5	05/05/15	KD	n/a	n/a	MSV1395
MC38190-8	V38775.D	1	05/05/15	KD	n/a	n/a	MSV1395

The QC reported here applies to the following samples: Method: SW846 8260C

MC38167-2, MC38167-3, MC38167-4, MC38167-5, MC38167-6

CAS No.	Surrogate Recoveries	MS	MSD	MC38190-8	Limits
1868-53-7	Dibromofluoromethane	105%	103%	122%	72-133%
2037-26-5	Toluene-D8	108%	106%	104%	85-114%
460-00-4	4-Bromofluorobenzene	104%	104%	102%	70-134%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC38218-2MS [a]	P84715.D	1	05/05/15	JB	n/a	n/a	MSP2776
MC38218-2MSD [a]	P84716.D	1	05/06/15	JB	n/a	n/a	MSP2776
MC38218-2	P84697.D	1	05/05/15	JB	n/a	n/a	MSP2776

The QC reported here applies to the following samples: Method: SW846 8260C

MC38167-1

CAS No.	Compound	MC38218-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		50	52.9	106	50	49.0	98	8	61-138/30

CAS No.	Surrogate Recoveries	MS	MSD	MC38218-2	Limits
1868-53-7	Dibromofluoromethane	115%	105%	104%	72-133%
2037-26-5	Toluene-D8	104%	101%	102%	85-114%
460-00-4	4-Bromofluorobenzene	110%	100%	111%	70-134%

(a) Analysis performed outside 12h BFB tune time.

* = Outside of Control Limits.

6.4.2

Volatile Internal Standard Area Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSP2776-CC2751	Injection Date:	05/05/15
Lab File ID:	P84690.D	Injection Time:	11:21
Instrument ID:	GCMSP	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	697137	8.42	903934	9.26	497701	12.46	448263	15.02	137073	6.17
Upper Limit [a]	1394274	8.92	1807868	9.76	995402	12.96	896526	15.52	274146	6.67
Lower Limit [b]	348569	7.92	451967	8.76	248851	11.96	224132	14.52	68537	5.67
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSP2776-BS	697137	8.42	903934	9.26	497701	12.46	448263	15.02	137073	6.17
MSP2776-MB	699416	8.43	921969	9.27	451616	12.47	362002	15.02	195837	6.20
ZZZZZZ	703277	8.43	928774	9.27	451037	12.47	358111	15.02	214885	6.21
ZZZZZZ	704392	8.43	946952	9.27	475431	12.47	387628	15.02	284746[c]	6.20
MC38218-2	622226	8.43	834521	9.27	422850	12.47	344496	15.02	221184	6.19
ZZZZZZ	695320	8.43	939628	9.27	470318	12.47	373676	15.02	201057	6.19
ZZZZZZ	691612	8.43	930547	9.27	467754	12.47	373031	15.02	235678	6.19
ZZZZZZ	696064	8.42	947827	9.27	479486	12.47	364628	15.02	243419	6.20
GP19109-LB1	692160	8.43	923404	9.27	477604	12.47	392952	15.02	269835	6.18
ZZZZZZ	681103	8.42	925554	9.26	467277	12.47	381688	15.02	259127	6.19
ZZZZZZ	688409	8.43	936198	9.26	470010	12.47	378780	15.02	250224	6.17
ZZZZZZ	651367	8.43	885770	9.27	450483	12.47	364289	15.02	218085	6.20
ZZZZZZ	657260	8.43	891825	9.27	461722	12.47	363836	15.02	255238	6.18
ZZZZZZ	664267	8.43	907626	9.27	454276	12.47	355702	15.02	173237	6.21
ZZZZZZ	629967	8.43	852367	9.27	434279	12.47	353299	15.02	162887	6.22
ZZZZZZ	662198	8.43	908191	9.27	459457	12.47	372662	15.02	192075	6.20
MC38167-1	675979	8.43	922966	9.27	462252	12.47	368540	15.02	190518	6.21
ZZZZZZ	193453[d]	9.22*	293778[d]	9.92*	217595[d]	12.70	359779[d]	15.09	5911[d]	6.05
MC38218-2MS [e]	689885	8.42	963474	9.26	549886	12.46	399422	15.02	234162	6.46
MC38218-2MSD [e]	629930	8.43	822258	9.27	443567	12.46	383405	15.02	212169	6.21

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Outside control limits. Target analytes not associated with this internal standard.
(d) Outside control limits due to possible matrix interference. Confirmed by reanalysis.
(e) Analysis performed outside 12h BFB tune time.

6.5.1

Volatile Internal Standard Area Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSU1175-CC1175	Injection Date:	05/05/15
Lab File ID:	U28278.D	Injection Time:	09:44
Instrument ID:	GCMSU	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	652178	8.95	1040126	9.82	383736	13.07	538870	15.63	436074	6.58
Upper Limit [a]	1304356	9.45	2080252	10.32	767472	13.57	1077740	16.13	872148	7.08
Lower Limit [b]	326089	8.45	520063	9.32	191868	12.57	269435	15.13	218037	6.08
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSU1175-BS	513410	8.95	823370	9.82	363104	13.07	532413	15.63	350769	6.64
MSU1175-BSD	581694	8.95	885409	9.82	445864	13.07	620135	15.63	207610[c]	6.71
MSU1175-MB	634839	8.95	915331	9.82	366769	13.08	572759	15.64	386363	6.67
MC38167-2	694755	8.95	1033390	9.82	387348	13.08	583565	15.64	458900	6.58
MC38167-3	619993	8.95	870340	9.82	337232	13.08	568519	15.64	385352	6.65
MC38167-4	547968	8.95	782567	9.82	382476	13.08	581639	15.64	210764[c]	6.67
MC38167-5	623391	8.95	898146	9.82	369585	13.08	570932	15.64	412698	6.57
ZZZZZZ	572261	8.95	916960	9.82	349118	13.08	587239	15.64	485961	6.58
ZZZZZZ	621782	8.95	850579	9.82	297957	13.08	564690	15.64	445095	6.57
ZZZZZZ	703408	8.95	1019927	9.82	413451	13.08	606220	15.64	483571	6.60
ZZZZZZ	535203	8.95	759375	9.82	312577	13.08	555578	15.64	443382	6.57
ZZZZZZ	481463	8.95	679734	9.82	315928	13.08	571365	15.64	416970	6.65

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Outside control limits. Target analytes not associated with this internal standard.

6.5.2

Volatile Internal Standard Area Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSV1395-CC1332	Injection Date:	05/04/15
Lab File ID:	V38768.D	Injection Time:	23:21
Instrument ID:	GCMSV	Method:	SW846 8260C

6.5.3

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	597362	6.53	930074	7.72	478300	11.07	502534	13.28	91355	3.50
Upper Limit [a]	1194724	7.03	1860148	8.22	956600	11.57	1005068	13.78	182710	4.00
Lower Limit [b]	298681	6.03	465037	7.22	239150	10.57	251267	12.78	45678	3.00
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV1395-BS	618559	6.54	963123	7.72	486729	11.07	525719	13.28	98951	3.51
MSV1395-MB	517917	6.53	848993	7.72	442856	11.07	451273	13.28	87737	3.50
MC38167-6	476330	6.53	798503	7.72	420559	11.07	432884	13.28	83159	3.50
ZZZZZZ	458280	6.54	768438	7.72	407706	11.07	422468	13.28	82251	3.50
MC38190-8	457529	6.53	771242	7.72	411723	11.07	420517	13.28	79386	3.49
ZZZZZZ	435404	6.54	726754	7.72	390685	11.07	397889	13.28	77557	3.51
ZZZZZZ	492140	6.54	794418	7.72	425772	11.07	426203	13.28	86353	3.51
ZZZZZZ	449180	6.53	748783	7.72	398997	11.07	402045	13.28	72524	3.49
ZZZZZZ	430853	6.53	719833	7.72	388074	11.07	395217	13.28	71057	3.50
ZZZZZZ	503396	6.53	759607	7.72	431555	11.07	430460	13.28	73172	3.49
ZZZZZZ	452051	6.54	749265	7.72	396713	11.07	406200	13.28	77320	3.51
ZZZZZZ	431827	6.53	725650	7.72	389984	11.07	398329	13.28	72464	3.50
ZZZZZZ	429802	6.53	726205	7.72	392442	11.07	399906	13.28	70806	3.49
ZZZZZZ	442477	6.53	745624	7.72	396719	11.07	396265	13.28	66760	3.49
MC38167-2	434459	6.53	756738	7.72	386415	11.07	386145	13.28	67331	3.49
MC38167-3	457095	6.53	828493	7.72	397062	11.07	395811	13.28	69373	3.49
MC38167-4	465458	6.53	851019	7.72	405110	11.07	410914	13.28	66765	3.49
MC38167-5	478081	6.53	872467	7.72	408502	11.07	417572	13.28	69527	3.50
MC38190-8MS	553051	6.53	831452	7.72	445542	11.06	485534	13.28	76476	3.50
MC38190-8MSD	554065	6.52	836520	7.71	435211	11.06	474017	13.28	79522	3.49

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSV1396-CC1332	Injection Date:	05/05/15
Lab File ID:	V38799.D	Injection Time:	14:15
Instrument ID:	GCMSV	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	551338	6.53	845003	7.72	435936	11.07	483439	13.28	92530	3.50
Upper Limit [a]	1102676	7.03	1690006	8.22	871872	11.57	966878	13.78	185060	4.00
Lower Limit [b]	275669	6.03	422502	7.22	217968	10.57	241720	12.78	46265	3.00
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV1396-BS	551338	6.53	845003	7.72	435936	11.07	483439	13.28	92530	3.50
MSV1396-BSD	574712	6.53	869737	7.72	447943	11.07	479834	13.28	93013	3.51
MSV1396-MB	434729	6.53	716941	7.72	384315	11.07	400221	13.28	82015	3.50
ZZZZZZ	440098	6.53	735737	7.72	394634	11.07	400703	13.28	86578	3.51
ZZZZZZ	515306	6.53	774401	7.72	402988	11.07	422838	13.28	103832	3.51
ZZZZZZ	581855	6.53	898835	7.72	461521	11.07	483927	13.28	138836	3.49
MC38167-1	615884	6.53	914007	7.72	472150	11.07	490695	13.28	171346	3.51
ZZZZZZ	551292	6.53	883292	7.72	456900	11.07	466993	13.28	102734	3.50
ZZZZZZ	498484	6.53	806906	7.72	419877	11.07	429258	13.28	95472	3.51
ZZZZZZ	457560	6.53	752214	7.72	394978	11.07	408566	13.28	93391	3.50
ZZZZZZ	443940	6.53	733369	7.72	392715	11.07	410169	13.28	86642	3.50
ZZZZZZ	406375	6.53	674216	7.72	367611	11.07	377591	13.28	79639	3.50
ZZZZZZ	412391	6.53	689364	7.72	377554	11.07	393259	13.28	68342	3.51
ZZZZZZ	384873	6.53	639402	7.72	360905	11.07	366106	13.28	56800	3.50
ZZZZZZ	395651	6.53	652720	7.72	356787	11.07	360774	13.28	64656	3.50
ZZZZZZ	392626	6.52	648833	7.71	364340	11.06	363868	13.28	59502	3.49
ZZZZZZ	371396	6.53	636247	7.72	348722	11.06	358896	13.28	60813	3.50
ZZZZZZ	404073	6.53	646206	7.72	354796	11.06	373674	13.28	65027	3.50
ZZZZZZ	403409	6.52	648988	7.71	363644	11.06	363712	13.28	60726	3.49
ZZZZZZ	380627	6.53	620287	7.72	338518	11.06	353932	13.28	59200	3.50
ZZZZZZ	395525	6.53	626221	7.72	358501	11.06	360526	13.28	61453	3.50

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

6.5.4

Volatile Surrogate Recovery Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8260C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC38167-1	P84712.D	105	101	112
MC38167-1	V38806.D	101	105	106
MC38167-2	U28286.D	95	94	102
MC38167-2	V38786.D	120	99	102
MC38167-3	U28287.D	100	95	95
MC38167-3	V38787.D	123	96	104
MC38167-4	U28288.D	94	109	101
MC38167-4	V38788.D	120	96	101
MC38167-5	U28289.D	98	96	102
MC38167-5	V38789.D	119	96	102
MC38167-6	V38773.D	119	101	102
MC38190-8MS	V38792.D	105	108	104
MC38190-8MSD	V38793.D	103	106	104
MC38218-2MS	P84715.D	115	104	110
MC38218-2MSD	P84716.D	105	101	100
MSP2776-BS	P84690.D	102	102	97
MSP2776-MB	P84694.D	105	99	113
MSU1175-BS	U28279.D	110	111	98
MSU1175-BSD	U28280.D	99	115* [a]	105
MSU1175-MB	U28285.D	97	98	100
MSV1395-BS	V38769.D	107	104	105
MSV1395-MB	V38772.D	113	101	104
MSV1396-BS	V38799.D	109	105	104
MSV1396-BSD	V38800.D	108	105	106
MSV1396-MB	V38802.D	122	103	101

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	72-133%
S2 = Toluene-D8	85-114%
S3 = 4-Bromofluorobenzene	70-134%

(a) Outside control limits. Blank Spike meets program technical requirements.

6.5.1

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42788-MB	W21856.D	1	05/05/15	KD	04/23/15	OP42788	MSW933

The QC reported here applies to the following samples: Method: SW846 8270D

MC38167-1, MC38167-2, MC38167-3, MC38167-4, MC38167-5

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	2.5	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.29	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.51	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.47	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	0.34	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	0.59	ug/l	
95-48-7	2-Methylphenol	ND	10	0.30	ug/l	
	3&4-Methylphenol	ND	10	0.44	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.47	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.3	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.35	ug/l	
108-95-2	Phenol	ND	5.0	0.32	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.45	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.45	ug/l	
62-53-3	Aniline	ND	10	0.46	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.25	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.24	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.32	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.34	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.49	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.42	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.42	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.26	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.30	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.37	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.38	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.53	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.25	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.27	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	0.29	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.27	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.24	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.32	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.24	ug/l	

7.1.1

7

Method Blank Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42788-MB	W21856.D	1	05/05/15	KD	04/23/15	OP42788	MSW933

The QC reported here applies to the following samples: Method: SW846 8270D

MC38167-1, MC38167-2, MC38167-3, MC38167-4, MC38167-5

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.28	ug/l	
78-59-1	Isophorone	ND	5.0	0.47	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.36	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.40	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.51	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.48	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.25	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.26	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.25	ug/l	
110-86-1	Pyridine	ND	10	0.36	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	46%	10-79%
4165-62-2	Phenol-d5	35%	10-72%
118-79-6	2,4,6-Tribromophenol	100%	35-138%
4165-60-0	Nitrobenzene-d5	83%	30-116%
321-60-8	2-Fluorobiphenyl	85%	35-107%
1718-51-0	Terphenyl-d14	102%	43-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

7.1.1

7

Method Blank Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42789-MB	I95491.D	1	05/05/15	KD	04/23/15	OP42789	MSI3572

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC38167-1, MC38167-2, MC38167-3, MC38167-4, MC38167-5

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.0075	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.0084	ug/l	
120-12-7	Anthracene	ND	0.10	0.0098	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.015	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.019	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.013	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.010	ug/l	
218-01-9	Chrysene	ND	0.10	0.013	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.015	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.0074	ug/l	
86-73-7	Fluorene	ND	0.10	0.015	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.020	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	0.012	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	0.011	ug/l	
85-01-8	Phenanthrene	ND	0.050	0.011	ug/l	
129-00-0	Pyrene	ND	0.10	0.0085	ug/l	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	80%	26-121%
321-60-8	2-Fluorobiphenyl	76%	28-107%
1718-51-0	Terphenyl-d14	91%	29-129%

Blank Spike Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42788-BS	W21857.D	1	05/05/15	KD	04/23/15	OP42788	MSW933

The QC reported here applies to the following samples: Method: SW846 8270D

MC38167-1, MC38167-2, MC38167-3, MC38167-4, MC38167-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	50	12.2	24	10-73
95-57-8	2-Chlorophenol	50	38.4	77	47-106
59-50-7	4-Chloro-3-methyl phenol	50	43.4	87	50-111
120-83-2	2,4-Dichlorophenol	50	44.8	90	53-114
105-67-9	2,4-Dimethylphenol	50	34.0	68	23-110
51-28-5	2,4-Dinitrophenol	50	39.6	79	10-156
534-52-1	4,6-Dinitro-o-cresol	50	46.8	94	17-159
95-48-7	2-Methylphenol	50	33.6	67	40-92
	3&4-Methylphenol	100	68.2	68	38-86
88-75-5	2-Nitrophenol	50	47.1	94	53-115
100-02-7	4-Nitrophenol	50	18.5	37	10-83
87-86-5	Pentachlorophenol	50	39.2	78	41-122
108-95-2	Phenol	50	17.4	35	15-55
95-95-4	2,4,5-Trichlorophenol	50	49.7	99	52-120
88-06-2	2,4,6-Trichlorophenol	50	48.1	96	53-119
62-53-3	Aniline	50	31.7	63	26-87
101-55-3	4-Bromophenyl phenyl ether	50	46.9	94	65-127
85-68-7	Butyl benzyl phthalate	50	45.2	90	68-128
100-51-6	Benzyl Alcohol	50	36.5	73	13-108
91-58-7	2-Chloronaphthalene	50	47.2	94	58-120
106-47-8	4-Chloroaniline	50	42.1	84	48-106
111-91-1	bis(2-Chloroethoxy)methane	50	42.7	85	42-118
111-44-4	bis(2-Chloroethyl)ether	50	37.9	76	35-123
108-60-1	bis(2-Chloroisopropyl)ether	50	41.8	84	37-160
7005-72-3	4-Chlorophenyl phenyl ether	50	46.7	93	57-121
122-66-7	1,2-Diphenylhydrazine	50	44.8	90	54-128
121-14-2	2,4-Dinitrotoluene	50	51.0	102	64-127
606-20-2	2,6-Dinitrotoluene	50	49.8	100	55-135
91-94-1	3,3'-Dichlorobenzidine	50	43.6	87	49-141
132-64-9	Dibenzofuran	50	47.0	94	60-107
84-74-2	Di-n-butyl phthalate	50	44.9	90	68-117
117-84-0	Di-n-octyl phthalate	50	45.5	91	60-139
84-66-2	Diethyl phthalate	50	47.1	94	51-127
131-11-3	Dimethyl phthalate	50	47.3	95	22-147
117-81-7	bis(2-Ethylhexyl)phthalate	50	47.4	95	69-133
118-74-1	Hexachlorobenzene	50	47.7	95	62-131

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42788-BS	W21857.D	1	05/05/15	KD	04/23/15	OP42788	MSW933

The QC reported here applies to the following samples: Method: SW846 8270D

MC38167-1, MC38167-2, MC38167-3, MC38167-4, MC38167-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	13.7	27	10-74
67-72-1	Hexachloroethane	50	37.8	76	15-104
78-59-1	Isophorone	50	37.6	75	44-110
88-74-4	2-Nitroaniline	50	50.3	101	63-123
99-09-2	3-Nitroaniline	50	45.1	90	63-112
100-01-6	4-Nitroaniline	50	46.5	93	58-114
98-95-3	Nitrobenzene	50	40.3	81	37-130
62-75-9	n-Nitrosodimethylamine	50	29.7	59	18-80
621-64-7	N-Nitroso-di-n-propylamine	50	40.0	80	44-128
86-30-6	N-Nitrosodiphenylamine	50	41.6	83	62-107
110-86-1	Pyridine	50	15.7	31	10-77

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	51%	10-79%
4165-62-2	Phenol-d5	38%	10-72%
118-79-6	2,4,6-Tribromophenol	102%	35-138%
4165-60-0	Nitrobenzene-d5	89%	30-116%
321-60-8	2-Fluorobiphenyl	92%	35-107%
1718-51-0	Terphenyl-d14	104%	43-135%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42789-BS	I95492.D	1	05/05/15	KD	04/23/15	OP42789	MSI3572

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC38167-1, MC38167-2, MC38167-3, MC38167-4, MC38167-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	43.2	86	45-116
208-96-8	Acenaphthylene	50	40.3	81	34-110
120-12-7	Anthracene	50	43.8	88	50-117
56-55-3	Benzo(a)anthracene	50	48.6	97	55-139
50-32-8	Benzo(a)pyrene	50	51.5	103	48-131
205-99-2	Benzo(b)fluoranthene	50	42.9	86	49-141
191-24-2	Benzo(g,h,i)perylene	50	55.3	111	60-130
207-08-9	Benzo(k)fluoranthene	50	47.1	94	49-133
218-01-9	Chrysene	50	44.5	89	52-128
53-70-3	Dibenzo(a,h)anthracene	50	53.6	107	60-136
206-44-0	Fluoranthene	50	39.8	80	46-132
86-73-7	Fluorene	50	46.3	93	53-120
193-39-5	Indeno(1,2,3-cd)pyrene	50	54.9	110	57-134
90-12-0	1-Methylnaphthalene	50	43.2	86	41-105
91-57-6	2-Methylnaphthalene	50	44.1	88	36-111
85-01-8	Phenanthrene	50	43.0	86	50-120
129-00-0	Pyrene	50	40.2	80	48-127

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	89%	26-121%
321-60-8	2-Fluorobiphenyl	83%	28-107%
1718-51-0	Terphenyl-d14	91%	29-129%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42788-MS	W21858.D	1	05/05/15	KD	04/23/15	OP42788	MSW933
OP42788-MSD	W21859.D	1	05/05/15	KD	04/23/15	OP42788	MSW933
MC38000-32	W21860.D	1	05/05/15	KD	04/23/15	OP42788	MSW933

The QC reported here applies to the following samples: Method: SW846 8270D

MC38167-1, MC38167-2, MC38167-3, MC38167-4, MC38167-5

CAS No.	Compound	MC38000-32 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		50	12.2	24	50	11.6	23	5	10-76/20
95-57-8	2-Chlorophenol	ND		50	36.0	72	50	34.4	69	5	37-112/20
59-50-7	4-Chloro-3-methyl phenol	ND		50	42.2	84	50	43.3	87	3	43-115/20
120-83-2	2,4-Dichlorophenol	ND		50	41.7	83	50	41.0	82	2	47-119/20
105-67-9	2,4-Dimethylphenol	ND		50	33.1	66	50	32.6	65	2	15-118/20
51-28-5	2,4-Dinitrophenol	ND		50	41.1	82	50	38.3	77	7	10-165/20
534-52-1	4,6-Dinitro-o-cresol	ND		50	48.2	96	50	46.7	93	3	13-165/20
95-48-7	2-Methylphenol	ND		50	31.5	63	50	31.2	62	1	30-99/20
	3&4-Methylphenol	ND		100	64.4	64	100	63.7	64	1	32-89/20
88-75-5	2-Nitrophenol	ND		50	43.3	87	50	42.5	85	2	44-120/20
100-02-7	4-Nitrophenol	ND		50	18.8	38	50	18.4	37	2	10-93/20
87-86-5	Pentachlorophenol	ND		50	41.0	82	50	39.2	78	4	33-131/20
108-95-2	Phenol	ND		50	16.3	33	50	15.1	30	8	15-53/20
95-95-4	2,4,5-Trichlorophenol	ND		50	47.6	95	50	46.8	94	2	45-126/20
88-06-2	2,4,6-Trichlorophenol	ND		50	45.3	91	50	45.3	91	0	45-124/20
62-53-3	Aniline	ND		50	29.7	59	50	29.2	58	2	18-91/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	44.9	90	50	45.5	91	1	57-131/20
85-68-7	Butyl benzyl phthalate	ND		50	43.7	87	50	44.5	89	2	58-135/20
100-51-6	Benzyl Alcohol	ND		50	33.6	67	50	33.5	67	0	10-109/20
91-58-7	2-Chloronaphthalene	ND		50	43.3	87	50	43.7	87	1	51-123/20
106-47-8	4-Chloroaniline	ND		50	39.2	78	50	41.7	83	6	39-109/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	38.8	78	50	39.1	78	1	36-120/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	35.2	70	50	34.1	68	3	30-124/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	37.9	76	50	38.4	77	1	25-171/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	44.4	89	50	45.4	91	2	51-122/20
122-66-7	1,2-Diphenylhydrazine	ND		50	43.0	86	50	43.6	87	1	47-130/20
121-14-2	2,4-Dinitrotoluene	ND		50	48.1	96	50	48.7	97	1	57-131/20
606-20-2	2,6-Dinitrotoluene	ND		50	47.0	94	50	48.0	96	2	52-135/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	44.4	89	50	44.3	89	0	25-157/20
132-64-9	Dibenzofuran	ND		50	43.2	86	50	44.4	89	3	54-110/20
84-74-2	Di-n-butyl phthalate	ND		50	43.4	87	50	44.1	88	2	60-122/20
117-84-0	Di-n-octyl phthalate	ND		50	44.0	88	50	44.3	89	1	54-142/20
84-66-2	Diethyl phthalate	ND		50	44.6	89	50	45.9	92	3	40-132/20
131-11-3	Dimethyl phthalate	ND		50	44.7	89	50	45.8	92	2	13-149/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		50	46.1	92	50	46.5	93	1	59-139/20
118-74-1	Hexachlorobenzene	ND		50	45.9	92	50	46.1	92	0	56-135/20

* = Outside of Control Limits.

7.3.1

7

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42788-MS	W21858.D	1	05/05/15	KD	04/23/15	OP42788	MSW933
OP42788-MSD	W21859.D	1	05/05/15	KD	04/23/15	OP42788	MSW933
MC38000-32	W21860.D	1	05/05/15	KD	04/23/15	OP42788	MSW933

The QC reported here applies to the following samples: Method: SW846 8270D

MC38167-1, MC38167-2, MC38167-3, MC38167-4, MC38167-5

7.3.1

7

CAS No.	Compound	MC38000-32 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		50	13.4	27	50	12.4	25	8	10-73/20
67-72-1	Hexachloroethane	ND		50	33.4	67	50	32.7	65	2	13-103/20
78-59-1	Isophorone	ND		50	34.6	69	50	35.3	71	2	41-110/20
88-74-4	2-Nitroaniline	ND		50	47.6	95	50	48.5	97	2	57-126/20
99-09-2	3-Nitroaniline	ND		50	42.3	85	50	44.7	89	6	53-118/20
100-01-6	4-Nitroaniline	ND		50	43.6	87	50	46.9	94	7	50-119/20
98-95-3	Nitrobenzene	ND		50	35.9	72	50	35.4	71	1	35-127/20
62-75-9	n-Nitrosodimethylamine	ND		50	27.0	54	50	26.5	53	2	11-82/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	37.5	75	50	38.5	77	3	39-129/20
86-30-6	N-Nitrosodiphenylamine	ND		50	39.7	79	50	39.6	79	0	55-112/20
110-86-1	Pyridine	ND		50	14.4	29	50	12.6	25	13	15-71/20

CAS No.	Surrogate Recoveries	MS	MSD	MC38000-32 Limits	
367-12-4	2-Fluorophenol	47%	42%	48%	10-79%
4165-62-2	Phenol-d5	36%	33%	37%	10-72%
118-79-6	2,4,6-Tribromophenol	101%	100%	101%	35-138%
4165-60-0	Nitrobenzene-d5	82%	80%	82%	30-116%
321-60-8	2-Fluorobiphenyl	85%	86%	82%	35-107%
1718-51-0	Terphenyl-d14	101%	100%	103%	43-135%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42789-MS	I95493.D	1	05/05/15	KD	04/23/15	OP42789	MSI3572
OP42789-MSD	I95494.D	1	05/05/15	KD	04/23/15	OP42789	MSI3572
MC38000-33	I95495.D	1	05/05/15	KD	04/23/15	OP42789	MSI3572

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC38167-1, MC38167-2, MC38167-3, MC38167-4, MC38167-5

7.3.2

7

CAS No.	Compound	MC38000-33 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	40.5	81	50	40.7	81	0	36-124/20
208-96-8	Acenaphthylene	ND		50	37.7	75	50	38.0	76	1	25-116/20
120-12-7	Anthracene	ND		50	41.8	84	50	42.9	86	3	42-122/20
56-55-3	Benzo(a)anthracene	ND		50	45.7	91	50	46.9	94	3	45-145/20
50-32-8	Benzo(a)pyrene	ND		50	48.5	97	50	49.5	99	2	40-136/20
205-99-2	Benzo(b)fluoranthene	ND		50	40.2	80	50	42.3	85	5	41-148/20
191-24-2	Benzo(g,h,i)perylene	ND		50	53.4	107	50	54.5	109	2	48-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	44.4	89	50	43.8	88	1	45-131/20
218-01-9	Chrysene	ND		50	42.2	84	50	43.3	87	3	41-135/20
53-70-3	Dibenzo(a,h)anthracene	ND		50	51.2	102	50	52.4	105	2	49-144/20
206-44-0	Fluoranthene	ND		50	36.8	74	50	37.4	75	2	38-136/20
86-73-7	Fluorene	ND		50	44.4	89	50	45.3	91	2	43-127/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	52.5	105	50	53.7	107	2	45-142/20
90-12-0	1-Methylnaphthalene	ND		50	39.8	80	50	39.8	80	0	29-116/20
91-57-6	2-Methylnaphthalene	ND		50	40.3	81	50	40.3	81	0	27-117/20
85-01-8	Phenanthrene	0.018	J	50	41.1	82	50	41.5	83	1	41-126/20
129-00-0	Pyrene	ND		50	37.3	75	50	38.1	76	2	41-131/20

CAS No.	Surrogate Recoveries	MS	MSD	MC38000-33 Limits	
4165-60-0	Nitrobenzene-d5	82%	77%	80%	26-121%
321-60-8	2-Fluorobiphenyl	76%	77%	74%	28-107%
1718-51-0	Terphenyl-d14	86%	85%	94%	29-129%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3572-CC3561	Injection Date:	05/05/15
Lab File ID:	I95470.D	Injection Time:	08:17
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	165683	3.55	370402	4.59	224860	6.10	413790	7.41	335675	10.18	894436	11.60
Upper Limit [a]	331366	4.05	740804	5.09	449720	6.60	827580	7.91	671350	10.68	1788872	12.10
Lower Limit [b]	82842	3.05	185201	4.09	112430	5.60	206895	6.91	167838	9.68	447218	11.10
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
ZZZZZZ	228225	3.55	499287	4.59	294568	6.10	522892	7.41	417606	10.18	1056643	11.61
OP42912-MB	161247	3.55	360332	4.59	219620	6.10	424812	7.41	359239	10.18	952304	11.60
OP42912-BS	107408	3.55	259929	4.59	166132	6.10	325013	7.42	282796	10.18	739933	11.60
OP42912-MS1	130807	3.55	309916	4.59	190136	6.10	366481	7.42	302357	10.18	774611	11.61
OP42912-MSD1	164167	3.55	380720	4.59	230848	6.10	436523	7.42	353013	10.18	898298	11.61
MC38392-3A	247333	3.55	535878	4.59	317714	6.10	574893	7.41	435511	10.18	1070284	11.60
ZZZZZZ	237264	3.55	519785	4.59	307262	6.10	549417	7.42	448247	10.18	1124703	11.61
ZZZZZZ	235758	3.55	525255	4.59	314438	6.10	556312	7.41	420122	10.18	1020991	11.61
ZZZZZZ	261808	3.55	579257	4.59	337561	6.10	600889	7.41	432841	10.18	1019869	11.61
ZZZZZZ	233557	3.55	516984	4.59	309369	6.10	555856	7.41	423639	10.18	1061547	11.61
OP42887-MB	135747	3.55	312209	4.59	192203	6.10	363031	7.41	310713	10.18	843768	11.60
ZZZZZZ	239918	3.55	530227	4.59	313984	6.10	565135	7.41	428827	10.18	1060407	11.61
OP42887-BS	106151	3.55	253416	4.59	154678	6.10	304969	7.41	280934	10.18	769590	11.61
OP42887-BSD	107108	3.55	253181	4.59	150796	6.10	292779	7.41	261713	10.18	721864	11.61
ZZZZZZ	126297	3.55	281719	4.59	171468	6.10	329781	7.41	286765	10.17	790392	11.60
ZZZZZZ	99324	3.55	229504	4.59	139954	6.10	262949	7.41	233540	10.17	676733	11.60
ZZZZZZ	107620	3.55	249199	4.59	153438	6.10	285140	7.41	253165	10.17	722786	11.60
ZZZZZZ	89140	3.55	208674	4.59	130113	6.10	247422	7.41	230199	10.17	675423	11.60
OP42789-MB	88717	3.55	214825	4.59	137697	6.10	271715	7.41	258400	10.18	749732	11.60
OP42789-BS	99843	3.55	231619	4.59	139030	6.10	275422	7.41	257950	10.18	712037	11.61
OP42789-MS	92386	3.55	213005	4.59	128319	6.10	261319	7.41	258790	10.18	737501	11.61
OP42789-MSD	78295[c]	3.55	182892[c]	4.59	110515[c]	6.10	225967	7.41	225281	10.18	650011	11.60
MC38000-33	113795	3.55	259494	4.59	158350	6.10	308759	7.41	270837	10.18	765590	11.60
MC38167-1	170918	3.55	372737	4.59	218622	6.10	393518	7.41	312450	10.18	814258	11.61
MC38167-2	109128	3.55	250240	4.59	154542	6.10	295509	7.41	263203	10.18	750492	11.61
MC38167-4	126339	3.55	281080	4.59	170877	6.10	319756	7.41	271056	10.18	726546	11.61

7.4.1

7

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL.

Check Std:	MSI3572-CC3561	Injection Date:	05/05/15
Lab File ID:	I95470.D	Injection Time:	08:17
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Outside control limits due to possible matrix interference.

7.4.1

7

Semivolatile Internal Standard Area Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3573-CC3561	Injection Date:	05/06/15
Lab File ID:	I95503.D	Injection Time:	08:16
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	213642	3.55	463930	4.59	280363	6.10	514237	7.42	399090	10.18	1016473	11.61
Upper Limit [a]	427284	4.05	927860	5.09	560726	6.60	1028474	7.92	798180	10.68	2032946	12.11
Lower Limit [b]	106821	3.05	231965	4.09	140182	5.60	257119	6.92	199545	9.68	508237	11.11
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP42846-MB	222438	3.55	487621	4.59	284618	6.10	494266	7.41	364567	10.18	891301	11.61
OP42846-BS	234189	3.55	512484	4.59	290753	6.11	519960	7.42	379624	10.19	886591	11.61
OP42846-MS	190008	3.55	429252	4.59	255536	6.10	476470	7.42	386433	10.19	985284	11.61
OP42846-MSD	214418	3.55	465554	4.59	260992	6.10	466088	7.42	331384	10.18	788909	11.61
MC38167-3	212578	3.55	492616	4.59	275445	6.10	499348	7.42	390143	10.19	980992	11.62
MC38167-5	209468	3.55	446085	4.59	263331	6.10	462181	7.42	342159	10.18	833794	11.61
ZZZZZZ	229383	3.55	492554	4.59	291407	6.10	521060	7.41	387522	10.18	956458	11.61
OP42821-MB	272691	3.55	584320	4.59	342705	6.11	596032	7.41	441186	10.18	1075231	11.61
OP42821-BS	245481	3.55	530777	4.59	295416	6.11	521689	7.42	373138	10.18	866491	11.61
ZZZZZZ	193996	3.55	420375	4.59	244484	6.10	420538	7.41	307901	10.18	736517	11.60
ZZZZZZ	206704	3.55	447211	4.59	262602	6.10	456920	7.41	326779	10.18	759945	11.61
OP42821-MS	213719	3.55	464833	4.59	264588	6.10	470814	7.42	352175	10.18	816910	11.61
OP42821-MSD	232249	3.55	510872	4.59	293305	6.10	518202	7.42	389557	10.18	916311	11.61
MC38222-8	242498	3.55	516939	4.59	298990	6.10	521123	7.41	375179	10.18	906745	11.61
ZZZZZZ	221794	3.55	472703	4.59	266232	6.10	457590	7.41	322065	10.18	793135	11.60
MC38200-14	227319	3.55	487524	4.59	282250	6.10	490856	7.41	352080	10.18	843886	11.61
ZZZZZZ	233233	3.55	491632	4.59	277655	6.10	468997	7.41	330841	10.18	791262	11.60

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.4.2

7

Semivolatile Internal Standard Area Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW933-CC902	Injection Date:	05/05/15
Lab File ID:	W21848.D	Injection Time:	09:07
Instrument ID:	GCMSW	Method:	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	276511	4.92	1034129	6.02	592230	7.56	1071680	8.85	1114544	11.34	1141222	12.98
Upper Limit [a]	553022	5.42	2068258	6.52	1184460	8.06	2143360	9.35	2229088	11.84	2282444	13.48
Lower Limit [b]	138256	4.42	517065	5.52	296115	7.06	535840	8.35	557272	10.84	570611	12.48

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP42779-MB	326609	4.91	1211226	6.02	720673	7.56	1232958	8.84	1319546	11.33	1301856	12.98
OP42779-BS	323489	4.91	1188570	6.02	686485	7.56	1193205	8.85	1213238	11.33	1192800	12.98
OP42779-MS	329369	4.92	1192015	6.02	687179	7.56	1180454	8.85	1191969	11.33	1159220	12.98
OP42779-MSD	315601	4.92	1150003	6.02	664374	7.56	1137987	8.85	1147170	11.34	1114148	12.98
MC38153-1	337853	4.91	1241914	6.02	724071	7.56	1195067	8.84	1202660	11.33	1152042	12.98
ZZZZZZ	322792	4.91	1187756	6.02	705415	7.56	1192080	8.84	1204294	11.33	1158774	12.98
ZZZZZZ	323977	4.91	1199866	6.02	710424	7.56	1190844	8.84	1214353	11.33	1146324	12.98
OP42788-MB	287147	4.91	1058101	6.02	623816	7.56	1078524	8.84	1164326	11.33	1173695	12.98
OP42788-BS	249361	4.91	909002	6.02	522241	7.56	922013	8.84	959590	11.33	971382	12.97
OP42788-MS	285871	4.91	1064666	6.02	611372	7.56	1058014	8.84	1104269	11.33	1120893	12.98
OP42788-MSD	239090	4.91	884964	6.02	516472	7.56	910809	8.84	954194	11.33	975799	12.98
MC38000-32	259783	4.91	957935	6.02	569945	7.56	966397	8.84	997955	11.33	1001379	12.97
MC38167-1	251782	4.91	922962	6.02	549898	7.56	927537	8.84	963385	11.33	973726	12.97
MC38167-2	290739	4.91	1060302	6.02	630953	7.56	1070757	8.84	1102211	11.33	1114676	12.98
MC38167-3	255023	4.91	959400	6.02	549825	7.56	903932	8.84	920832	11.33	948246	12.98
MC38167-4	277369	4.91	1001867	6.02	596148	7.56	1008058	8.84	1025988	11.33	1027123	12.98
MC38167-5	240799	4.91	889049	6.02	528153	7.56	892655	8.84	934721	11.33	926912	12.98
OP42804-MB	340593	4.91	1238554	6.02	738999	7.56	1259207	8.84	1321872	11.33	1332183	12.98
OP42804-BS	298343	4.91	1107412	6.02	644672	7.56	1137534	8.84	1201465	11.33	1228209	12.98
OP42804-MS	306523	4.91	1112636	6.02	643449	7.56	1116982	8.84	1140152	11.33	1157227	12.98
OP42804-MSD	300835	4.91	1107024	6.02	636346	7.56	1115074	8.84	1154206	11.33	1159166	12.98
MC38190-12	311140	4.91	1145865	6.02	686063	7.56	1153440	8.84	1222413	11.33	1228937	12.98
ZZZZZZ	337085	4.91	1219285	6.02	716008	7.56	1207878	8.84	1245973	11.33	1254039	12.98
ZZZZZZ	301049	4.91	1092719	6.02	658283	7.56	1116037	8.84	1168339	11.33	1168828	12.97
ZZZZZZ	337212	4.91	1219857	6.02	734765	7.56	1235174	8.84	1310386	11.33	1330090	12.98
ZZZZZZ	316819	4.91	1161680	6.02	689026	7.56	1174335	8.84	1257050	11.33	1278022	12.98
ZZZZZZ	337822	4.91	1223983	6.02	713777	7.56	1220903	8.84	1278213	11.33	1292629	12.98

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

7.4.3

7

Semivolatile Internal Standard Area Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW933-CC902	Injection Date:	05/05/15
Lab File ID:	W21848.D	Injection Time:	09:07
Instrument ID:	GCMSW	Method:	SW846 8270D

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Surrogate Recovery Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8270D Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC38167-1	W21861.D	44	32	104	80	78	104
MC38167-2	W21862.D	36	27	99	69	61	96
MC38167-3	W21863.D	42	30	98	71	68	93
MC38167-4	W21864.D	43	31	99	78	73	97
MC38167-5	W21865.D	41	31	96	73	66	92
OP42788-BS	W21857.D	51	38	102	89	92	104
OP42788-MB	W21856.D	46	35	100	83	85	102
OP42788-MS	W21858.D	47	36	101	82	85	101
OP42788-MSD	W21859.D	42	33	100	80	86	100

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	10-79%
S2 = Phenol-d5	10-72%
S3 = 2,4,6-Tribromophenol	35-138%
S4 = Nitrobenzene-d5	30-116%
S5 = 2-Fluorobiphenyl	35-107%
S6 = Terphenyl-d14	43-135%

Semivolatile Surrogate Recovery Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8270D BY SIM Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC38167-1	I95496.D	81	72	101
MC38167-2	I95497.D	69	55	87
MC38167-3	I95510.D	71	62	95
MC38167-4	I95499.D	78	66	91
MC38167-5	I95511.D	75	61	97
OP42789-BS	I95492.D	89	83	91
OP42789-MB	I95491.D	80	76	91
OP42789-MS	I95493.D	82	76	86
OP42789-MSD	I95494.D	77	77	85

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	26-121%
S2 = 2-Fluorobiphenyl	28-107%
S3 = Terphenyl-d14	29-129%

New England ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries

Method Blank Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42812-MB	BB62956.D	1	04/28/15	NK	04/24/15	OP42812	GBB3425

The QC reported here applies to the following samples: Method: SW846 8011

MC38167-1, MC38167-2, MC38167-3, MC38167-4, MC38167-5, MC38167-7

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.0061	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.0061	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	Bromofluorobenzene (S)	85%	60-140%
460-00-4	Bromofluorobenzene (S)	103%	60-140%

8.1.1 8

Blank Spike Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42812-BS	BB62957.D	1	04/28/15	NK	04/24/15	OP42812	GBB3425

The QC reported here applies to the following samples: Method: SW846 8011

MC38167-1, MC38167-2, MC38167-3, MC38167-4, MC38167-5, MC38167-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.077	108	45-149
106-93-4	1,2-Dibromoethane	0.071	0.065	92	51-149

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	78%	60-140%
460-00-4	Bromofluorobenzene (S)	99%	60-140%

8.2.1

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP42812-MS	BB62958.D	1	04/28/15	NK	04/24/15	OP42812	GBB3425
OP42812-MSD	BB62959.D	1	04/28/15	NK	04/24/15	OP42812	GBB3425
MC38200-2	BB62960.D	1	04/28/15	NK	04/24/15	OP42812	GBB3425

The QC reported here applies to the following samples: Method: SW846 8011

MC38167-1, MC38167-2, MC38167-3, MC38167-4, MC38167-5, MC38167-7

CAS No.	Compound	MC38200-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	ND		0.071	0.079	111	0.071	0.082	115	4	31-169/30
106-93-4	1,2-Dibromoethane	ND		0.071	0.068	96	0.071	0.072	101	6	34-175/30

CAS No.	Surrogate Recoveries	MS	MSD	MC38200-2	Limits
460-00-4	Bromofluorobenzene (S)	80%	86%	85%	60-140%
460-00-4	Bromofluorobenzene (S)	99%	107%	99%	60-140%

* = Outside of Control Limits.

8.3.1

Volatile Surrogate Recovery Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Method: SW846 8011 Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
MC38167-1	BB62967.D	79	106
MC38167-2	BB62968.D	80	106
MC38167-3	BB62969.D	75	110
MC38167-4	BB62970.D	72	99
MC38167-5	BB62971.D	75	102
MC38167-7	BB62972.D	81	107
OP42812-BS	BB62957.D	78	99
OP42812-MB	BB62956.D	85	103
OP42812-MS	BB62958.D	80	99
OP42812-MSD	BB62959.D	86	107

Surrogate Compounds	Recovery Limits
S1 = Bromofluorobenzene (S)	60-140%

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

8.4.1

GC Surrogate Retention Time Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBB3425-ICC3425	Injection Date:	04/27/15
Lab File ID:	BB62952.D	Injection Time:	23:58
Instrument ID:	GCBB	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	6.87	7.23

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP42812-MB	BB62956.D	04/28/15	01:55	6.87	7.22
OP42812-BS	BB62957.D	04/28/15	02:25	6.87	7.22
OP42812-MS	BB62958.D	04/28/15	02:54	6.87	7.22
OP42812-MSD	BB62959.D	04/28/15	03:24	6.87	7.22
MC38200-2	BB62960.D	04/28/15	03:53	6.87	7.22
ZZZZZZ	BB62961.D	04/28/15	04:22	6.87	7.22
ZZZZZZ	BB62962.D	04/28/15	04:51	6.87	7.22
ZZZZZZ	BB62963.D	04/28/15	05:20	6.87	7.22
ZZZZZZ	BB62964.D	04/28/15	05:49	6.87	7.22
ZZZZZZ	BB62965.D	04/28/15	06:17	6.87	7.22

Surrogate Compounds

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.5.1

GC Surrogate Retention Time Summary

Job Number: MC38167
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q15 GW/ 21563720.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBB3425-CC3425	Injection Date:	04/28/15
Lab File ID:	BB62966.D	Injection Time:	06:45
Instrument ID:	GCBB	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	6.87	7.22

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
MC38167-1	BB62967.D	04/28/15	07:13	6.87	7.22
MC38167-2	BB62968.D	04/28/15	07:42	6.87	7.22
MC38167-3	BB62969.D	04/28/15	08:10	6.87	7.22
MC38167-4	BB62970.D	04/28/15	08:37	6.87	7.22
MC38167-5	BB62971.D	04/28/15	09:05	6.87	7.23
MC38167-7	BB62972.D	04/28/15	09:33	6.87	7.22
ZZZZZZ	BB62973.D	04/28/15	10:02	6.87	7.22
ZZZZZZ	BB62974.D	04/28/15	10:30	6.87	7.22
GBB3425-ECC3425	BB62975.D	04/28/15	10:58	6.87	7.22

Surrogate Compounds

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.5.2