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

314 429 0100 tel
314 429 0462 fax

May 24, 2017

Ms. Joyce Munie, P.E.
Manager, Permit Section
Illinois Environmental Protection Agency
Bureau of Land
1021 North Grand Avenue East
Springfield, Illinois 62794

**Submittal of Corrected Information**
**Groundwater Monitoring Report – 2nd Quarter 2014**
**Roxana, Illinois**
**1191150002 – Madison County**
**Equilon Enterprises LLC d/b/a Shell Oil Products US**
**Log No. B-43R**

Dear Ms. Munie:

On behalf of Shell Oil Products US (SOPUS), AECOM Technical Services, Inc. (AECOM) hereby submits the enclosed addendum to the above-referenced report (the Report).

AECOM collects a variety of samples for SOPUS as part of the work performed in connection with the above-referenced site including the samples referenced and utilized in the Report. AECOM contracts with independent laboratories to analyze the samples collected. As noted in SOPUS' initial disclosure letter and our subsequent communications, Accutest Laboratories (Accutest) issued revised laboratory analyses in response to an internal evaluation performed of its process. Please note, the majority of the corrected analyses were issued only to include a revised footnote and the numeric value of the analytical results reported remained unchanged. If any numeric values of analytical results presented in the Report were updated by Accutest, the updated results are presented as part of the information included in the Report addendum. Moreover, based upon our evaluation of the Report and the revised information received from Accutest, the conclusion(s) of the Report as originally issued are unaffected.

The information provided within and the format of this addendum is as discussed during our meeting with IEPA on March 23, 2017. This addendum includes the following information:

- IEPA LPC form
- Data Review Addendum Table (summarizing changed information)
- Revised analytical results table
- Revised laboratory reports (on CD)

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

Robert Billman, PG
Senior Project Manager

Robert E. Mooshegian, CHMM
Senior Program Manager

Enclosures: 2 copies

cc: Kevin Dyer, SOPUS
Eric Petersen, Phillips 66
Shannon Haney, Greensfelder, Hemker & Gale P.C.
Repositories – Village Hall, Roxana Public Library, website
Project File

# Illinois Environmental Protection Agency

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

## RCRA FACILITY GROUNDWATER, LEACHATE AND GAS REPORTING FORM

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

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

Facility Name: Equilon Enterprises LLC dba Shell Oil Products US

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

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

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

☐ LPC-160 Forms

| Groundwater | 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)

____ 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)

1Q14, 2Q14, 3Q14, 4Q14, 1Q15, & 2Q15 Groundwater Sampling Report Addenda - Addenda being issued due to revised laboratory reports.

| Analytical Method | Sample ID | Lab Sample ID | Sample Date | Analyte | Original Result | Corrected Result | Laboratory Qualifier | Units | Laboratory Footnote | AECOM Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| SW846 8260C | MW1-ROX-040714 | MC29574-1 | 04/07/2014 | Acetone | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW1-ROX-040714 | MC29574-1 | 04/07/2014 | Acrylonitrile | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW1-ROX-040714 | MC29574-1 | 04/07/2014 | 2-Butanone (MEK) | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW1-ROX-040714 | MC29574-1 | 04/07/2014 | 1,4-Dioxane | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW9-ROX-040714 | MC29574-2 | 04/07/2014 | Acetone | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW9-ROX-040714 | MC29574-2 | 04/07/2014 | Acrylonitrile | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW9-ROX-040714 | MC29574-2 | 04/07/2014 | 2-Butanone (MEK) | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW9-ROX-040714 | MC29574-2 | 04/07/2014 | 1,4-Dioxane | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |

| Analytical Method | Sample ID | Lab Sample ID | Sample Date | Analyte | Original Result | Corrected Result | Laboratory Qualifier | Units | Laboratory Footnote | AECOM Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| SW846 8260C | MW10-ROX-040714 | MC29574-3 | 04/07/2014 | Acetone | 68.4 | 68.4 | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | J |
| SW846 8260C | MW10-ROX-040714 | MC29574-3 | 04/07/2014 | Acrylonitrile | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW10-ROX-040714 | MC29574-3 | 04/07/2014 | 2-Butanone (MEK) | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW10-ROX-040714 | MC29574-3 | 04/07/2014 | 1,4-Dioxane | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW11-ROX-040714 | MC29574-5 | 04/07/2014 | Acetone | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW11-ROX-040714 | MC29574-5 | 04/07/2014 | Acrylonitrile | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW11-ROX-040714 | MC29574-5 | 04/07/2014 | 2-Butanone (MEK) | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW11-ROX-040714 | MC29574-5 | 04/07/2014 | 1,4-Dioxane | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |

| Analytical Method | Sample ID | Lab Sample ID | Sample Date | Analyte | Original Result | Corrected Result | Laboratory Qualifier | Units | Laboratory Footnote | AECOM Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| SW846 8260C | MW6D-ROX-040814 | MC29594-1 | 04/08/2014 | Acetone | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW6D-ROX-040814 | MC29594-1 | 04/08/2014 | Acrylonitrile | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW6D-ROX-040814 | MC29594-1 | 04/08/2014 | 2-Butanone (MEK) | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW6D-ROX-040814 | MC29594-1 | 04/08/2014 | 1,4-Dioxane | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW6C-ROX-040814 | MC29594-2 | 04/08/2014 | Acetone | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW6C-ROX-040814 | MC29594-2 | 04/08/2014 | Acrylonitrile | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW6C-ROX-040814 | MC29594-2 | 04/08/2014 | 2-Butanone (MEK) | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW6C-ROX-040814 | MC29594-2 | 04/08/2014 | 1,4-Dioxane | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |

| Analytical Method | Sample ID | Lab Sample ID | Sample Date | Analyte | Original Result | Corrected Result | Laboratory Qualifier | Units | Laboratory Footnote | AECOM Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| SW846 8260C | MW6B-ROX-040814 | MC29594-3 | 04/08/2014 | Acetone | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW6B-ROX-040814 | MC29594-3 | 04/08/2014 | Acrylonitrile | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW6B-ROX-040814 | MC29594-3 | 04/08/2014 | 2-Butanone (MEK) | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW6B-ROX-040814 | MC29594-3 | 04/08/2014 | 1,4-Dioxane | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW6A-ROX-040814 | MC29594-5 | 04/08/2014 | Acetone | 110 | 110 | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | J |
| SW846 8260C | MW6A-ROX-040814 | MC29594-5 | 04/08/2014 | Acrylonitrile | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW6A-ROX-040814 | MC29594-5 | 04/08/2014 | 2-Butanone (MEK) | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW6A-ROX-040814 | MC29594-5 | 04/08/2014 | 1,4-Dioxane | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |

| Analytical Method | Sample ID | Lab Sample ID | Sample Date | Analyte | Original Result | Corrected Result | Laboratory Qualifier | Units | Laboratory Footnote | AECOM Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| SW846 8260C | MW6A-ROX-040814-DUP | MC29594-6 | 04/08/2014 | Acetone | 116 | 116 | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | J |
| SW846 8260C | MW6A-ROX-040814-DUP | MC29594-6 | 04/08/2014 | Acrylonitrile | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW6A-ROX-040814-DUP | MC29594-6 | 04/08/2014 | 2-Butanone (MEK) | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW6A-ROX-040814-DUP | MC29594-6 | 04/08/2014 | 1,4-Dioxane | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW12-ROX-040814 | MC29594-7 | 04/08/2014 | Acetone | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW12-ROX-040814 | MC29594-7 | 04/08/2014 | Acrylonitrile | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW12-ROX-040814 | MC29594-7 | 04/08/2014 | 2-Butanone (MEK) | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW12-ROX-040814 | MC29594-7 | 04/08/2014 | 1,4-Dioxane | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |

| Analytical Method | Sample ID | Lab Sample ID | Sample Date | Analyte | Original Result | Corrected Result | Laboratory Qualifier | Units | Laboratory Footnote | AECOM Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| SW846 8260C | MW16-ROX-040914 | MC29640-1 | 04/09/2014 | 2-Chloroethyl vinyl ether | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW24-ROX-040914 | MC29640-2 | 04/09/2014 | 2-Chloroethyl vinyl ether | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | P54-ROX-040914 | MC29640-3 | 04/09/2014 | 2-Chloroethyl vinyl ether | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW3-ROX-040914 | MC29640-4 | 04/09/2014 | 2-Chloroethyl vinyl ether | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | ROST4PZC-ROX-041014 | MC29684-1 | 04/10/2014 | 2-Chloroethyl vinyl ether | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | ROST3MW-ROX-041014 | MC29684-2 | 04/10/2014 | 2-Chloroethyl vinyl ether | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW5-ROX-041014 | MC29684-4 | 04/10/2014 | Acetone | 21.0 | 21.0 | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased high. | J |
| SW846 8260C | MW5-ROX-041014 | MC29684-4 | 04/10/2014 | 2-Chloroethyl vinyl ether | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |

| Analytical Method | Sample ID | Lab Sample ID | Sample Date | Analyte | Original Result | Corrected Result | Laboratory Qualifier | Units | Laboratory Footnote | AECOM Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| SW846 8260C | MW2-ROX-041014 | MC29684-5 | 04/10/2014 | 2-Chloroethyl vinyl ether | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW22-ROX-041014 | MC29684-6 | 04/10/2014 | Acetone | 91.1 | 91.1 | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased high. | J |
| SW846 8260C | MW22-ROX-041014 | MC29684-6 | 04/10/2014 | 2-Chloroethyl vinyl ether | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW22-ROX-041014-DUP | MC29684-7 | 04/10/2014 | 2-Chloroethyl vinyl ether | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW13-ROX-041114 | MC29713-1 | 04/11/2014 | 2-Chloroethyl vinyl ether | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW13-ROX-041114 | MC29713-1 | 04/11/2014 | 1,4-Dioxane | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW14-ROX-041114 | MC29713-2 | 04/11/2014 | 2-Chloroethyl vinyl ether | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW14-ROX-041114 | MC29713-2 | 04/11/2014 | 1,4-Dioxane | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |

| Analytical Method | Sample ID | Lab Sample ID | Sample Date | Analyte | Original Result | Corrected Result | Laboratory Qualifier | Units | Laboratory Footnote | AECOM Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| SW846 8260C | P66-ROX-041114 | MC29713-3 | 04/11/2014 | 2-Chloroethyl vinyl ether | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | P66-ROX-041114 | MC29713-3 | 04/11/2014 | 1,4-Dioxane | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | T12-ROX-041514 | MC29805-1 | 04/15/2014 | Bromoform | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | T12-ROX-041514 | MC29805-1 | 04/15/2014 | 2-Butanone (MEK) | 17.0 | 17.0 | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased high. | J |
| SW846 8260C | T12-ROX-041514 | MC29805-1 | 04/15/2014 | 2-Chloroethyl vinyl ether | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | T12-ROX-041514 | MC29805-1 | 04/15/2014 | Dichlorodifluoromethane | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | P74-ROX-041514 | MC29805-3 | 04/15/2014 | Acetone | 39.8 | 39.8 | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | J |
| SW846 8260C | P74-ROX-041514 | MC29805-3 | 04/15/2014 | Bromoform | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |

| Analytical Method | Sample ID | Lab Sample ID | Sample Date | Analyte | Original Result | Corrected Result | Laboratory Qualifier | Units | Laboratory Footnote | AECOM Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| SW846 8260C | P74-ROX-041514 | MC29805-3 | 04/15/2014 | 2-Butanone (MEK) | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | P74-ROX-041514 | MC29805-3 | 04/15/2014 | 2-Chloroethyl vinyl ether | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | P74-ROX-041514 | MC29805-3 | 04/15/2014 | Dichlorodifluoromethane | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | P59-ROX-041514 | MC29805-4 | 04/15/2014 | Acetone | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | P59-ROX-041514 | MC29805-4 | 04/15/2014 | Bromoform | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | P59-ROX-041514 | MC29805-4 | 04/15/2014 | 2-Butanone (MEK) | 25.3 | 25.3 | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | J |
| SW846 8260C | P59-ROX-041514 | MC29805-4 | 04/15/2014 | 2-Chloroethyl vinyl ether | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | P59-ROX-041514 | MC29805-4 | 04/15/2014 | Dichlorodifluoromethane | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |

| Analytical Method | Sample ID | Lab Sample ID | Sample Date | Analyte | Original Result | Corrected Result | Laboratory Qualifier | Units | Laboratory Footnote | AECOM Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| SW846 8260C | P57-ROX-041514 | MC29805-5 | 04/15/2014 | Acetone | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | P57-ROX-041514 | MC29805-5 | 04/15/2014 | Bromoform | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | P57-ROX-041514 | MC29805-5 | 04/15/2014 | 2-Butanone (MEK) | 5.5 | 5.5 | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | J |
| SW846 8260C | P57-ROX-041514 | MC29805-5 | 04/15/2014 | 2-Chloroethyl vinyl ether | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | P57-ROX-041514 | MC29805-5 | 04/15/2014 | Dichlorodifluoromethane | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | P58-ROX-041514 | MC29805-6 | 04/15/2014 | Acetone | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | P58-ROX-041514 | MC29805-6 | 04/15/2014 | Bromoform | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | P58-ROX-041514 | MC29805-6 | 04/15/2014 | 2-Butanone (MEK) | 5.6 | 5.6 | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | J |

| Analytical Method | Sample ID | Lab Sample ID | Sample Date | Analyte | Original Result | Corrected Result | Laboratory Qualifier | Units | Laboratory Footnote | AECOM Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| SW846 8260C | P58-ROX-041514 | MC29805-6 | 04/15/2014 | 2-Chloroethyl vinyl ether | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | P58-ROX-041514 | MC29805-6 | 04/15/2014 | Dichlorodifluoromethane | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW4-ROX-041614 | MC29833-1 | 04/16/2014 | 2-Chloroethyl vinyl ether | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW4-ROX-041614 | MC29833-1 | 04/16/2014 | Dichlorodifluoromethane | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW8-ROX-041614 | MC29833-2 | 04/16/2014 | 2-Chloroethyl vinyl ether | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW8-ROX-041614 | MC29833-2 | 04/16/2014 | Dichlorodifluoromethane | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW8-ROX-041614-DUP | MC29833-3 | 04/16/2014 | 2-Chloroethyl vinyl ether | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW8-ROX-041614-DUP | MC29833-3 | 04/16/2014 | Dichlorodifluoromethane | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |

| Analytical Method | Sample ID | Lab Sample ID | Sample Date | Analyte | Original Result | Corrected Result | Laboratory Qualifier | Units | Laboratory Footnote | AECOM Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| SW846 8260C | MW7-ROX-041614 | MC29833-4 | 04/16/2014 | 2-Chloroethyl vinyl ether | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | MW7-ROX-041614 | MC29833-4 | 04/16/2014 | Dichlorodifluoromethane | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |
| SW846 8260C | P114-ROX-042114 | MC29957-1 | 04/21/2014 | 2-Chloroethyl vinyl ether | ND | ND | | ug/l | Ana: Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low. | UJ |

**LABORATORY QUALIFIERS:**

ND = Not detected.

**AECOM QUALIFIERS:**

J = The result is estimated.

UJ = Estimated nondetect.

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | VOCs | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Acetone[6] | Benzene | Butane[6] | 2-Butanone[6] | n-Butylbenzene | sec-Butylbenzene | tert-Butylbenzene | Carbon disulfide | Carbon tetrachloride | Chlorobenzene | Chloroethane | Chloroform | Chloromethane | 4-Chlorotoluene | Cymene (p-Isopropyltoluene) | 1,1-Dichloroethane | 1,2-Dichloropropane | trans-1,3-Dichloropropene | 1,4-Dioxane | Ethylbenzene |
| | | | | | Screening Values (mg/L) | 6.3 [1] | 0.005 [1] | | 4.2 [1] | 0.35 [3] | | | 0.7 [1] | 0.005 [1] | 0.1 [1] | | 0.07 [1] | | | | 1.4 [1] | 0.005 [2] | 0.001 [2] | 0.0077 [1] | 0.7 [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-072711 | 7/27/2011 | 43.41 - 58.41 | 35.77 | NE | <0.005 | 0.0053 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW1-ROX-120511 | 12/5/2011 | | 37.10 | NE | <0.005 UJ | 0.00097 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW1-ROX-011612 | 1/16/2012 | 48.80 - 58.80 | 37.75 | NE | <0.005 | 0.0142 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW1-ROX-050112 | 5/1/2012 | | 39.09 | NE | <0.005 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW1-ROX-073012 | 7/30/2012 | | 39.39 | NE | <0.005 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | 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 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW1-ROX-011013 | 1/10/2013 | | 41.89 | NE | <0.005 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW1-ROX-040913 | 4/9/2013 | | 42.55 | NE | <0.005 | 0.0004 J | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW1-ROX-070813 | 7/8/2013 | | 39.56 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW1-ROX-100313 | 10/3/2013 | | 40.28 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW1-ROX-011414 | 1/14/2014 | | 42.77 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW1-ROX-040714 | 4/7/2014 | 48.80 - 58.80 | 43.28 | NE | <0.01 UJ | 0.00066 | | <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 | <0.002 | <0.0005 | <0.025 UJ | <0.001 |
| MW-02 | MW2-ROX-072711 | 7/27/2011 | 47.19 - 62.19 | 37.04 | NE | <0.05 | 1.98 | | <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 | <0.02 | <0.005 | <0.25 | 1.76 |
| | MW2-ROX-072711-DUP | 7/27/2011 | | 37.04 | NE | <0.05 | 1.79 | | <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 | <0.02 | <0.005 | <0.25 | 1.57 |
| | MW2-ROX-112811 | 11/28/2011 | 49.87 - 59.87 | 38.03 | NE | <0.005 | 0.0216 | | <0.005 | <0.005 | 0.0106 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | 0.0121 | <0.001 | <0.002 | <0.0005 | <0.025 | 0.503 |
| | MW2-ROX-011612 | 1/16/2012 | | 38.89 | NE | <0.025 | 0.0161 | | <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 | <0.01 | <0.0025 | <0.13 | 0.777 |
| | MW2-ROX-050112 | 5/1/2012 | | 40.25 | NE | <0.025 | 0.0145 | | <0.025 | <0.025 | 0.0068 J | <0.025 | <0.025 | <0.005 | <0.005 | <0.01 | <0.005 | <0.01 | <0.025 | 0.008 J | <0.005 | <0.01 | <0.0025 | <0.13 | 0.948 |
| | MW2-ROX-073012 | 7/30/2012 | | 40.60 | NE | <0.005 | 0.01 | | <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 | <0.002 | <0.0005 | <0.025 | 0.952 |
| | MW2-ROX-102612 | 10/26/2012 | | 42.35 | NE | <0.025 UJ | 0.0142 | | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.005 | <0.005 | <0.01 | <0.005 | <0.01 | 0.0172 J | <0.025 | <0.005 | <0.01 | <0.0025 | <0.13 | 0.763 |
| | MW2-ROX-011113 | 1/11/2013 | | 42.94 | NE | <0.01 | 0.0192 | | <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 | <0.004 | <0.001 | <0.05 | 0.676 |
| | MW2-ROX-040913 | 4/9/2013 | | 43.70 | NE | <0.05 | 0.0174 | | <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 | <0.01 | <0.0025 | <0.13 | 0.91 |
| | MW2-ROX-071113 | 7/11/2013 | | 40.82 | NE | <0.01 UJ | 0.006 | | <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 | <0.002 | <0.0005 | | 1.57 |
| | MW2-ROX-100813 | 10/8/2013 | | 41.73 | NE | <0.01 | 0.0139 | | 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 | <0.002 | <0.0005 | <0.025 | 0.942 |
| | MW2-ROX-012014 | 1/20/2014 | | 44.00 | NE | <0.01 | 0.0238 | | <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 | 0.0043 | <0.002 | <0.0005 | <0.025 | 0.426 |
| | MW2-ROX-041014 | 4/10/2014 | 49.87 - 59.87 | 44.66 | NE | <0.01 | 0.0214 | | 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 | <0.002 | <0.0005 | <0.025 | 0.478 |
| MW-03 | MW3-ROX-080311 | 8/3/2011 | 30.98 - 45.98 | 22.72 | NE | <0.005 | 0.00056 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW3-ROX-112911 | 11/29/2011 | 34.67 - 44.67 | 24.06 | NE | <0.005 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW3-ROX-112911-DUP | 11/29/2011 | | 24.06 | NE | <0.005 | 0.00052 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW3-ROX-011612 | 1/16/2012 | | 24.93 | NE | <0.005 | 0.00091 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW3-ROX-043012 | 4/30/2012 | | 26.19 | NE | <0.005 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW3-ROX-072712 | 7/27/2012 | | 26.60 | NE | <0.005 UJ | 0.0089 | | <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 | <0.002 | <0.0005 | | <0.001 |
| | MW3-ROX-102512 | 10/25/2012 | | 28.39 | NE | <0.005 UJ | 0.0017 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW3-ROX-010913 | 1/9/2013 | | 29.35 | NE | <0.005 | 0.0014 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW3-ROX-040813 | 4/8/2013 | | 29.74 | NE | <0.005 UJ | 0.008 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW3-ROX-071113 | 7/11/2013 | | 26.32 | NE | <0.01 UJ | 0.0059 | | <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 | <0.002 | <0.0005 | | <0.001 |
| | MW3-ROX-100813 | 10/8/2013 | | 27.38 | NE | <0.01 | 0.00057 | | <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 | <0.002 | <0.0005 | <0.025 | 0.0025 |
| | MW3-ROX-011614 | 1/16/2014 | | 29.91 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 UJ | <0.001 |
| | MW3-ROX-040914 | 4/9/2014 | 34.67 - 44.67 | 30.50 | NE | <0.01 | 0.0015 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | VOCs | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Acetone[6] | Benzene | Butane[6] | 2-Butanone[6] | n-Butylbenzene | sec-Butylbenzene | tert-Butylbenzene | Carbon disulfide | Carbon tetrachloride | Chlorobenzene | Chloroethane | Chloroform | Chloromethane | 4-Chlorotoluene | Cymene (p-Isopropyltoluene) | 1,1-Dichloroethane | 1,2-Dichloropropane | trans-1,3-Dichloropropene | 1,4-Dioxane | Ethylbenzene |
| | | | | | Screening Values (mg/L) | 6.3 [1] | 0.005 [1] | | 4.2 [1] | 0.35 [3] | | | 0.7 [1] | 0.005 [1] | 0.1 [1] | | 0.07 [1] | | | | 1.4 [1] | 0.005 [2] | 0.001 [2] | 0.0077 [1] | 0.7 [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-072611 | 7/26/2011 | 42.63 - 57.63 | 34.15 | NE | <0.005 | 0.114 | | <0.005 | <0.005 | 0.0058 | 0.0063 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | 0.0023 |
| | MW4-ROX-072611-DUP | 7/26/2011 | | 34.15 | NE | <0.005 | 0.108 | | <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 | <0.002 | <0.0005 | <0.025 | 0.0021 |
| | MW4-ROX-121511 | 12/15/2011 | | 33.99 | NE | <0.005 | 0.0381 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW4-ROX-011612 | 1/16/2012 | 46.06 - 56.06 | 36.00 | NE | <0.005 | 0.115 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW4-ROX-050312 | 5/3/2012 | | 37.45 | NE | <0.005 | 0.0941 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW4-ROX-050312-DUP | 5/3/2012 | | 37.45 | NE | <0.063 U | 0.0933 | | <0.005 | <0.005 | <0.005 | 0.0012 J | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW4-ROX-072512 | 7/25/2012 | | 37.63 | NE | <0.005 | 0.191 | | <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 | <0.002 | <0.0005 | <0.025 | 0.00082 J |
| | MW4-ROX-072512-Dup | 7/25/2012 | | 37.63 | NE | <0.005 | 0.199 | | <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 | <0.002 | <0.0005 | <0.025 | 0.00083 J |
| | MW4-ROX-102912 | 10/29/2012 | | 39.45 | NE | <0.01 UJ | 0.354 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.002 | <0.002 | <0.004 | <0.002 | <0.004 UJ | <0.01 | <0.01 | <0.002 | <0.004 | <0.001 | <0.05 | <0.002 |
| | MW4-ROX-011113 | 1/11/2013 | | 40.20 | NE | <0.005 | 9.04 J | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | 0.00052 J |
| | 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 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | 0.00056 J |
| | MW4-ROX-030413 | 3/4/2013 | | 40.20 | NE | <0.5 | 21.4 | | <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 | <0.2 | <0.05 | <2.5 | <0.1 |
| | MW4-ROX-040913 | 4/9/2013 | | 40.90 | NE | <0.02 | 64.2 | | <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 | <0.004 | <0.001 | <0.05 | <0.002 |
| | MW4-ROX-040913-DUP | 4/9/2013 | | 40.90 | NE | <0.01 | 72.9 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | 0.00081 J |
| | MW4-ROX-071713 | 7/17/2013 | | 37.61 | NE | <0.01 | 12.2 | | <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 | <0.002 | <0.001 UJ | <0.05 | 0.0015 |
| | MW4-ROX-101613 | 10/16/2013 | | 38.80 | NE | <0.1 | 1.7 | | <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 | <0.02 | <0.005 | <0.25 | <0.01 |
| | MW4-ROX-013014 | 1/30/2014 | | 41.09 | NE | <0.01 | 2.01 | | <0.005 | 0.00058 J | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 UJ | 0.00048 J |
| | MW4-ROX-041614 | 4/16/2014 | 46.06 - 56.06 | 41.91 | NE | <0.01 | 0.553 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| MW-05 | MW5-ROX-072611 | 7/26/2011 | 31.13 - 46.13 | 22.00 | NE | <0.005 | 0.0222 | | <0.005 | 0.0054 | 0.0061 | 0.0078 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW5-ROX-072611-DUP | 7/26/2011 | | 22.00 | NE | <0.005 | 0.0221 | | <0.005 | 0.0054 | 0.0061 | 0.0078 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW5-ROX-112111 | 11/21/2011 | 33.97 - 43.97 | 23.46 | NE | <0.005 UJ | 0.0109 | | <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 | <0.002 | <0.0005 | | <0.001 |
| | MW5-ROX-011712 | 1/17/2012 | | 24.76 | NE | <0.005 | 0.0442 | | <0.005 | <0.005 | <0.005 | 0.0057 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW5-ROX-050312 | 5/3/2012 | | 25.89 | NE | <0.005 | 0.0532 | | <0.005 | <0.005 | 0.0029 J | 0.0073 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | 0.0014 J | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW5-ROX-072512 | 7/25/2012 | | 26.18 | NE | <0.005 | 0.0925 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW5-ROX-102912 | 10/29/2012 | | 28.16 | NE | <0.005 UJ | 0.0628 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW5-ROX-011113 | 1/11/2013 | | 28.75 | NE | <0.005 | 0.0072 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW5-ROX-040913 | 4/9/2013 | | 29.41 | NE | <0.005 | 0.0018 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW5-ROX-070913 | 7/9/2013 | | 26.04 | NE | <0.01 | 0.0075 | | <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 | <0.002 | <0.0005 | | <0.001 |
| | MW5-ROX-100813 | 10/8/2013 | | 26.97 | NE | <0.01 | 0.0016 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW5-ROX-011714 | 1/17/2014 | | 29.59 | NE | <0.01 | 0.002 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW5-ROX-041014 | 4/10/2014 | 33.97 - 43.97 | 30.09 | NE | 0.021 J | 0.0037 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| MW-06A | MW6A-ROX-072611 | 7/26/2011 | 31.98 - 46.98 | 23.76 | NE | <0.005 U | 0.0032 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW6A-ROX-112111 | 11/21/2011 | 34.83 - 44.83 | 25.49 | NE | <0.0059 UJ | 0.0105 J | | <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 | <0.002 | <0.0005 | | <0.001 |
| | MW6A-ROX-112111-DUP | 11/21/2011 | | 25.49 | NE | <0.005 UJ | 0.0137 J | | <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 | <0.002 | <0.0005 | | <0.001 |
| | MW6A-ROX-011712 | 1/17/2012 | | 26.74 | NE | <0.005 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW6A-ROX-050212 | 5/2/2012 | | 27.77 | NE | <0.005 | 0.00077 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW6A-ROX-080112 | 8/1/2012 | | 28.36 | NE | <0.005 | 0.0016 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW6A-ROX-102412 | 10/24/2012 | | 30.06 | NE | <0.12 UJ | 0.00073 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW6A-ROX-011413 | 1/14/2013 | | 31.00 | NE | <0.005 | 0.0276 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW6A-ROX-040313 | 4/3/2013 | | 31.62 | NE | <0.005 UJ | 0.0017 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW6A-ROX-070913 | 7/9/2013 | | 28.25 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | | <0.001 |
| | MW6A-ROX-070913-DUP | 7/9/2013 | | 28.25 | NE | <0.01 | <0.0005 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | | <0.001 |
| | MW6A-ROX-100713 | 10/7/2013 | | 28.87 | NE | <0.01 UJ | <0.0005 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | 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 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW6A-ROX-011614 | 1/16/2014 | | 31.62 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 UJ | <0.001 |
| | MW6A-ROX-011614-DUP | 1/16/2014 | | 31.62 | NE | <0.01 | <0.0005 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 UJ | <0.001 |
| | MW6A-ROX-040814 | 4/8/2014 | 34.83 - 44.83 | 32.16 | NE | 0.11 J | 0.0011 | | <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 | <0.002 | <0.0005 | <0.025 UJ | <0.001 |
| | MW6A-ROX-040814-DUP | 4/8/2014 | | 32.16 | NE | 0.116 J | 0.001 | | <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 | <0.002 | <0.0005 | <0.025 UJ | <0.001 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | VOCs | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Acetone[6] | Benzene | Butane[6] | 2-Butanone[6] | n-Butylbenzene | sec-Butylbenzene | tert-Butylbenzene | Carbon disulfide | Carbon tetrachloride | Chlorobenzene | Chloroethane | Chloroform | Chloromethane | 4-Chlorotoluene | Cymene (p-Isopropyltoluene) | 1,1-Dichloroethane | 1,2-Dichloropropane | trans-1,3-Dichloropropene | 1,4-Dioxane | Ethylbenzene |
| | | | | Screening Values (mg/L) | | 6.3 [1] | 0.005 [1] | | 4.2 [1] | 0.35 [3] | | | 0.7 [1] | 0.005 [1] | 0.1 [1] | | 0.07 [1] | | | | 1.4 [1] | 0.005 [2] | 0.001 [2] | 0.0077 [1] | 0.7 [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-072311 | 7/23/2011 | 64.05 - 69.05 | 23.60 | NE | <0.005 UJ | 0.0022 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW6B-ROX-110311 | 11/3/2011 | | 24.67 | NE | <0.05 | 0.961 | | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.01 | <0.01 | <0.02 | <0.01 | <0.02 UJ | <0.05 | <0.05 | <0.01 | <0.02 | <0.005 | <0.25 | <0.01 |
| | MW6B-ROX-011712 | 1/17/2012 | | 26.77 | NE | <0.005 | 0.0013 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW6B-ROX-050212 | 5/2/2012 | | 27.82 | NE | <0.005 | 0.00086 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW6B-ROX-080112 | 8/1/2012 | | 28.39 | NE | <0.0032 UJ | 0.00045 J | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW6B-ROX-102412 | 10/24/2012 | | 30.11 | NE | <0.005 UJ | 0.0015 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW6B-ROX-011713 | 1/17/2013 | | 31.11 | NE | <0.005 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | 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 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW6B-ROX-070913 | 7/9/2013 | | 28.25 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | | <0.001 |
| | MW6B-ROX-100713 | 10/7/2013 | | 28.93 | NE | <0.01 UJ | <0.0005 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW6B-ROX-011614 | 1/16/2014 | | 31.67 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 UJ | <0.001 |
| | MW6B-ROX-040814 | 4/8/2014 | 64.05 - 69.05 | 32.21 | NE | <0.01 UJ | 0.0009 | | <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 | <0.002 | <0.0005 | <0.025 UJ | <0.001 |
| MW-06C | MW6C-ROX-072411 | 7/24/2011 | 84.95 - 89.95 | 23.43 | NE | <0.005 UJ | 0.0027 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW6C-ROX-110311 | 11/3/2011 | | 24.47 | NE | <0.005 | 0.0017 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW6C-ROX-011712 | 1/17/2012 | | 26.50 | NE | <0.005 | 0.0028 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW6C-ROX-050212 | 5/2/2012 | | 27.62 | NE | <0.005 | 0.0015 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW6C-ROX-080112 | 8/1/2012 | | 28.15 | NE | <0.003 UJ | 0.00061 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | 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 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | 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 | <0.001 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 | <0.002 UJ | <0.0005 UJ | <0.025 UJ | <0.001 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 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW6C-ROX-070913 | 7/9/2013 | | 28.03 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | | <0.001 |
| | MW6C-ROX-100713 | 10/7/2013 | | 28.72 | NE | <0.01 UJ | <0.0005 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW6C-ROX-011614 | 1/16/2014 | | 31.48 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 UJ | <0.001 |
| | MW6C-ROX-040814 | 4/8/2014 | 84.95 - 89.95 | 32.01 | NE | <0.01 UJ | 0.0021 | | <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 | <0.002 | <0.0005 | <0.025 UJ | <0.001 |
| MW-06D | MW6D-ROX-072311 | 7/23/2011 | 104.72 - 109.72 | 23.29 | NE | <0.005 UJ | 0.0027 | | <0.005 | <0.005 | <0.005 | <0.005 | 0.007 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW6D-ROX-110311 | 11/3/2011 | | 24.31 | NE | <0.005 | 0.013 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW6D-ROX-011712 | 1/17/2012 | | 26.33 | NE | <0.005 | 0.0022 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW6D-ROX-050212 | 5/2/2012 | | 27.45 | NE | <0.005 | 0.0015 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW6D-ROX-080212 | 8/2/2012 | | 30.56 | NE | <0.005 UJ | 0.00068 | | <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 | <0.002 | <0.0005 | | <0.001 |
| | MW6D-ROX-102412 | 10/24/2012 | | 29.71 | NE | <0.005 UJ | 0.00055 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | 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 | <0.001 UJ | <0.001 UJ | <0.002 UJ | <0.001 UJ | <0.002 UJ | <0.005 UJ | <0.005 UJ | <0.001 UJ | <0.002 UJ | <0.0005 UJ | <0.025 UJ | <0.001 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 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW6D-ROX-070913 | 7/9/2013 | | 27.91 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | | <0.001 |
| | MW6D-ROX-100713 | 10/7/2013 | | 28.58 | NE | <0.01 UJ | <0.0005 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW6D-ROX-011614 | 1/16/2014 | | 31.33 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 UJ | <0.001 |
| | MW6D-ROX-040814 | 4/8/2014 | 104.72 - 109.72 | 31.85 | NE | <0.01 UJ | 0.0064 | | <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 | <0.002 | <0.0005 | <0.025 UJ | <0.001 |
| MW-07 | MW7-ROX-072411 | 7/24/2011 | 42.92 - 52.92 | 35.65 | NE | <25 UJ | 1840 | | <25 | <25 | <25 | <25 | <25 | <5 | <5 | <10 | <5 | <10 | <25 | <25 | <5 | <10 | <2.5 | <130 | <5 |
| | MW-7-ROX-110211 | 11/2/2011 | | 35.95 | NE | <5 | 774 | | <5 | <5 | <5 | <5 | <5 | <1 | <1 | <2 | <1 | <2 UJ | <5 | <5 | <1 | <2 | <0.5 | <25 | <1 |
| | MW7-ROX-011812 | 1/18/2012 | | 38.10 | NE | <0.166 U | 1330 J | | <0.005 | 0.0026 J | 0.0021 J | 0.003 J | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | 0.0727 |
| | MW7-ROX-011812-DUP | 1/18/2012 | | 38.10 | NE | <0.146 U | 1110 | | <0.005 | 0.0027 J | 0.0022 J | 0.0029 J | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | 0.0015 J | <0.001 | <0.002 | <0.0005 | <0.025 | 0.0718 |
| | MW7-ROX-050412 | 5/4/2012 | | 39.19 | NE | <0.5 | 738 | | <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 | <0.2 | <0.05 | <2.5 | <0.1 |
| | MW7-ROX-080712 | 8/7/2012 | | 39.50 | NE | 0.199 J | 591 J | | <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 | <0.02 | <0.005 | <0.25 | 0.0619 |
| | MW7-ROX-103012 | 10/30/2012 | | 41.23 | NE | <10 UJ | 833 | | <10 | <10 | <10 | <10 | <10 | <2 | <2 | <4 | <2 | <4 UJ | <10 | <10 | <2 | <4 | <1 | <50 | <2 |
| | MW7-ROX-103012-DUP | 10/30/2012 | | 41.23 | NE | <10 UJ | 863 | | <10 | <10 | <10 | <10 | <10 | <2 | <2 | <4 | <2 | <4 UJ | <10 | <10 | <2 | <4 | <1 | <50 | <2 |
| | MW7-ROX-011513 | 1/15/2013 | | 42.21 | NE | <20 | 1230 | | <20 | <20 | <20 | <20 | <20 | <4 | <4 | <8 | <4 | <8 | <20 | <20 | <4 | <8 | <2 | <100 | <4 |
| | MW7-ROX-011513-DUP | 1/15/2013 | | 42.21 | NE | <20 | 1320 | | <20 | <20 | <20 | <20 | <20 | <4 | <4 | <8 | <4 | <8 | <20 | <20 | <4 | <8 | <2 | <100 | <4 |
| | MW7-ROX-041013 | 4/10/2013 | | 42.70 | NE | <20 | 475 | | <20 | <10 | <10 | <10 | <10 | <2 | <2 | <4 | <2 | <4 | <10 | <10 | <2 | <4 | <1 | <50 | <2 |
| | MW7-ROX-041013-DUP | 4/10/2013 | | 42.70 | NE | <20 | 499 | | <20 | <10 | <10 | <10 | <10 | <2 | <2 | <4 | <2 | <4 | <10 | <10 | <2 | <4 | <1 | <50 | <2 |
| | MW7-ROX-071713 | 7/17/2013 | | 39.60 | NE | <0.01 | 1000 J | | <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 | <0.002 | <0.001 UJ | <0.05 | 0.2 J |
| | MW7-ROX-101613 | 10/16/2013 | | 40.64 | NE | <20 | 553 | | <10 | <10 | <10 | <10 | <10 | <2 | <2 | <4 | <2 | <4 | <10 | <10 | <2 | <4 | <1 | <50 | <2 |
| | MW7-ROX-013014 | 1/30/2014 | | 42.94 | NE | <25 | 1490 | | <13 | <13 | <13 | <13 | <13 UJ | <2.5 | <2.5 | <5 | <2.5 | <5 | <13 | <13 | <2.5 | <5 | <1.3 | <63 UJ | <2.5 |
| | MW7-ROX-041614 | 4/16/2014 | 42.92 - 52.92 | 43.79 | NE | <50 | 1390 | | <25 | <25 | <25 | <25 | <25 | <5 | <5 | <10 | <5 | <10 | <25 | <25 | <5 | <10 | <2.5 | <130 | <5 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | VOCs | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Acetone[6] | Benzene | Butane[6] | 2-Butanone[6] | n-Butylbenzene | sec-Butylbenzene | tert-Butylbenzene | Carbon disulfide | Carbon tetrachloride | Chlorobenzene | Chloroethane | Chloroform | Chloromethane | 4-Chlorotoluene | Cymene (p-Isopropyltoluene) | 1,1-Dichloroethane | 1,2-Dichloropropane | trans-1,3-Dichloropropene | 1,4-Dioxane | Ethylbenzene |
| | | | | | Screening Values (mg/L) | 6.3 [1] | 0.005 [1] | | 4.2 [1] | 0.35 [3] | | | 0.7 [1] | 0.005 [1] | 0.1 [1] | | 0.07 [1] | | | | 1.4 [1] | 0.005 [2] | 0.001 [2] | 0.0077 [1] | 0.7 [1] |
| Location | Sample ID | Sample Date | Screened Interval (ft btoc) | Depth to Water (ft btoc) | Product Thickness (ft) | Analytical Results (mg/L) | | | | | | | | | | | | | | | | | | | |
| MW-08 | MW8-ROX-072411 | 7/24/2011 | 33.60 - 43.60 | 26.02 | NE | <25 | 1650 | | <25 UJ | <25 | <25 | <25 | <25 | <5 | <5 | <10 | <5 | <10 UJ | <25 | <25 | <5 | <10 | <2.5 | <130 | <5 |
| | MW8-ROX-072411-DUP | 7/24/2011 | | 26.02 | NE | <25 UJ | 1860 | | <25 | <25 | <25 | <25 | <25 | <5 | <5 | <10 | <5 | <10 | <25 | <25 | <5 | <10 | <2.5 | <130 | <5 |
| | MW-8-ROX-110211 | 11/2/2011 | | 27.02 | NE | <5 | 934 | | <5 | <5 | <5 | <5 | <5 | <1 | <1 | <2 | <1 | <2 UJ | <5 | <5 | <1 | <2 | <0.5 | <25 | <1 |
| | MW8-ROX-011812 | 1/18/2012 | | 29.15 | NE | <0.005 | 386 | | <0.005 | 0.0043 J | 0.003 J | 0.002 J | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | 0.0022 J | <0.001 | <0.002 | <0.0005 | <0.025 | 0.285 |
| | MW8-ROX-050412 | 5/4/2012 | | 30.21 | NE | <0.5 | 1070 | | <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 | <0.2 | <0.05 | <2.5 | 0.393 |
| | MW8-ROX-050412-DUP | 5/4/2012 | | 30.21 | NE | <0.5 | 1040 | | <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 | <0.2 | <0.05 | <2.5 | 0.396 |
| | MW8-ROX-080712 | 8/7/2012 | | 30.97 | NE | <0.378 UJ | 397 J | | <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 | <0.04 | <0.01 | <0.5 | 0.249 |
| | MW8-ROX-080712-DUP | 8/7/2012 | | 30.97 | NE | <0.235 UJ | 653 J | | <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 | <0.02 | <0.005 | <0.25 | 0.232 |
| | MW8-ROX-103012 | 10/30/2012 | | 32.32 | NE | <5 UJ | 523 | | <5 | <5 | <5 | <5 | <5 | <1 | <1 | <2 | <1 | <2 UJ | <5 | <5 | <1 | <2 | <0.5 | <25 | <1 |
| | MW8-ROX-011513 | 1/15/2013 | | 33.30 | NE | <10 | 1120 J | | <10 | <10 | <10 | <10 | <10 | <2 | <2 | <4 | <2 | <4 | <10 | <10 | <2 | <4 | <1 | <50 | <2 |
| | MW8-ROX-041013 | 4/10/2013 | | 33.77 | NE | <50 | 969 | | <50 | <25 | <25 | <25 | <25 | <5 | <5 | <10 | <5 | <10 | <25 | <25 | <5 | <10 | <2.5 | <130 | <5 |
| | MW8-ROX-071713 | 7/17/2013 | | 30.43 | NE | <0.008 U | 532 | | <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 | <0.002 | <0.001 UJ | <0.05 | 0.508 |
| | MW8-ROX-071713-DUP | 7/17/2013 | | 30.43 | NE | <0.01 | 494 | | <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 | <0.002 | <0.001 UJ | <0.05 | 0.442 J |
| | MW8-ROX-101613 | 10/16/2013 | | 31.59 | NE | <20 | 360 | | <10 | <10 | <10 | <10 | <10 | <2 | <2 | <4 | <2 | <4 | <10 | <10 | <2 | <4 | <1 | <50 | <2 |
| | MW8-ROX-101613-DUP | 10/16/2013 | | 31.59 | NE | <20 | 351 | | <10 | <10 | <10 | <10 | <10 | <2 | <2 | <4 | <2 | <4 | <10 | <10 | <2 | <4 | <1 | <50 | <2 |
| | MW8-ROX-013014 | 1/30/2014 | | 34.02 | NE | <25 | 721 | | <13 | <13 | <13 | <13 | <13 UJ | <2.5 | <2.5 | <5 | <2.5 | <5 | <13 | <13 | <2.5 | <5 | <1.3 | <63 UJ | <2.5 |
| | MW8-ROX-013014-DUP | 1/30/2014 | | 34.02 | NE | <25 | 748 | | <13 | <13 | <13 | <13 | <13 UJ | <2.5 | <2.5 | <5 | <2.5 | <5 | <13 | <13 | <2.5 | <5 | <1.3 | <63 UJ | <2.5 |
| | MW8-ROX-041614 | 4/16/2014 | 33.60 - 43.60 | 34.73 | NE | <20 | 862 | | <10 | <10 | <10 | <10 | <10 | <2 | <2 | <4 | <2 | <4 | <10 | <10 | <2 | <4 | <1 | <50 | <2 |
| | MW8-ROX-041614-DUP | 4/16/2014 | | 34.73 | NE | <20 | 1060 | | <10 | <10 | <10 | <10 | <10 | <2 | <2 | <4 | <2 | <4 | <10 | <10 | <2 | <4 | <1 | <50 | <2 |
| MW-09 | MW9-ROX-072311 | 7/23/2011 | 46.45 - 56.45 | 38.06 | NE | <0.005 UJ | 0.0024 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW9-ROX-110111 | 11/1/2011 | | 37.78 | NE | <0.005 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW9-ROX-011612 | 1/16/2012 | | 39.50 | NE | <0.005 | 0.0031 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW9-ROX-050312 | 5/3/2012 | | 41.03 | NE | <0.005 | 0.001 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW9-ROX-072712 | 7/27/2012 | | 41.30 | NE | <0.005 UJ | 0.00058 | | <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 | <0.002 | <0.0005 | | <0.001 |
| | MW9-ROX-102912 | 10/29/2012 | | 43.17 | NE | <0.005 UJ | <0.0005 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 UJ | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW9-ROX-011113 | 1/11/2013 | | 43.90 | NE | <0.123 U | <0.0005 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW9-ROX-040913 | 4/9/2013 | | 44.67 | NE | <0.005 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW9-ROX-070813 | 7/8/2013 | | 42.35 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW9-ROX-100313 | 10/3/2013 | | 42.27 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW9-ROX-011414 | 1/14/2014 | | 44.47 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW9-ROX-040714 | 4/7/2014 | 46.45 - 56.45 | 44.99 | NE | <0.01 UJ | 0.0044 | | <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 | <0.002 | <0.0005 | <0.025 UJ | <0.001 |
| MW-10 | MW10-ROX-072311 | 7/23/2011 | 44.43 - 54.43 | 38.01 | NE | <0.005 UJ | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW10-ROX-110111 | 11/1/2011 | | 37.72 | NE | <0.005 | 0.0022 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW10-ROX-011612 | 1/16/2012 | | 39.28 | NE | <0.005 | 0.0026 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW10-ROX-050112 | 5/1/2012 | | 40.86 | NE | <0.005 | 0.00079 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW10-ROX-072712 | 7/27/2012 | | 41.21 | NE | <0.005 UJ | 0.00058 | | <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 | <0.002 | <0.0005 | | <0.001 |
| | 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 | <0.001 | <0.001 | <0.002 | 0.00095 J | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW10-ROX-011013 | 1/10/2013 | | 44.10 | NE | <0.101 U | <0.0005 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | 0.0074 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW10-ROX-012113 | 1/21/2013 | | 44.10 | NE | <0.025 | 0.003 | | <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 | <0.001 | | <0.005 |
| | MW10-ROX-040913 | 4/9/2013 | | 44.60 | NE | <0.005 | 0.00067 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW10-ROX-070813 | 7/8/2013 | | 42.27 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW10-ROX-100313 | 10/3/2013 | | 42.38 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW10-ROX-011514 | 1/15/2014 | | 44.42 | NE | 0.0174 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW10-ROX-040714 | 4/7/2014 | 44.43 - 54.43 | 45.00 | NE | 0.0684 J | 0.0018 | | <0.005 UJ | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | 0.0032 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 UJ | <0.001 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | VOCs | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Acetone[6] | Benzene | Butane[6] | 2-Butanone[6] | n-Butylbenzene | sec-Butylbenzene | tert-Butylbenzene | Carbon disulfide | Carbon tetrachloride | Chlorobenzene | Chloroethane | Chloroform | Chloromethane | 4-Chlorotoluene | Cymene (p-isopropyltoluene) | 1,1-Dichloroethane | 1,2-Dichloropropane | trans-1,3-Dichloropropene | 1,4-Dioxane | Ethylbenzene |
| | | | | Screening Values (mg/L) | | 6.3 [1] | 0.005 [1] | | 4.2 [1] | 0.35 [3] | | | 0.7 [1] | 0.005 [1] | 0.1 [1] | | 0.07 [1] | | | | 1.4 [1] | 0.005 [2] | 0.001 [2] | 0.0077 [1] | 0.7 [1] |
| Location | Sample ID | Sample Date | Screened Interval (ft btoc) | Depth to Water (ft btoc) | Product Thickness (ft) | Analytical Results (mg/L) | | | | | | | | | | | | | | | | | | | |
| MW-11 | MW11-ROX-072411 | 7/24/2011 | 41.66 - 51.66 | 34.3 | NE | <0.005 UJ | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW-11-ROX-110211 | 11/2/2011 | | 35.44 | NE | <0.005 | 0.0019 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW11-ROX-011712 | 1/17/2012 | | 37.44 | NE | <0.005 | 0.0024 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW11-ROX-043012 | 4/30/2012 | | 38.66 | NE | <0.005 | 0.00087 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW11-ROX-072712 | 7/27/2012 | | 38.90 | NE | <0.005 UJ | 0.00073 | | <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 | <0.002 | <0.0005 | | <0.001 |
| | MW11-ROX-102512 | 10/25/2012 | | 40.59 | NE | <0.005 UJ | <0.0005 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW11-ROX-011013 | 1/10/2013 | | 41.43 | NE | <0.005 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | 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 UJ | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW11-ROX-070813 | 7/8/2013 | | 39.24 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW11-ROX-100713 | 10/7/2013 | | 39.95 | NE | <0.01 UJ | <0.0005 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW11-ROX-011514 | 1/15/2014 | | 42.16 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW11-ROX-040714 | 4/7/2014 | 41.66 - 51.66 | 42.70 | NE | <0.01 UJ | 0.0014 | | <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 | <0.002 | <0.0005 | <0.025 UJ | <0.001 |
| MW-12 | MW12-ROX-072411 | 7/24/2011 | 41.92 - 51.92 | 35.55 | NE | <0.005 UJ | <0.0005 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 UJ | <0.001 | <0.002 | <0.005 | <0.005 UJ | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW-12-ROX-110211 | 11/2/2011 | | 35.70 | NE | <0.005 | 0.0012 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW-12-ROX-110211-DUP | 11/2/2011 | | 35.70 | NE | <0.005 | 0.0014 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW12-ROX-011712 | 1/17/2012 | | 37.70 | NE | <0.005 | 0.0023 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW12-ROX-011712-DUP | 1/17/2012 | | 37.70 | NE | <0.005 | 0.0028 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW12-ROX-043012 | 4/30/2012 | | 38.98 | NE | <0.005 | 0.00066 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW12-ROX-072712 | 7/27/2012 | | 39.22 | NE | <0.005 UJ | 0.0013 | | <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 | <0.002 | <0.0005 | | <0.001 |
| | MW12-ROX-102512 | 10/25/2012 | | 40.95 | NE | <0.005 UJ | <0.0005 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW12-ROX-011013 | 1/10/2013 | | 41.83 | NE | <0.35 U | <0.0005 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | 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 UJ | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW12-ROX-070913 | 7/9/2013 | | 39.28 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | | <0.001 |
| | MW12-ROX-100713 | 10/7/2013 | | 40.22 | NE | <0.01 UJ | <0.0005 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW12-ROX-011514 | 1/15/2014 | | 42.54 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW12-ROX-040814 | 4/8/2014 | 41.92 - 51.92 | 43.15 | NE | <0.01 UJ | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 UJ | <0.001 |
| MW-13 | MW13-ROX-080311 | 8/3/2011 | 25.57 - 35.57 | 21.67 | NE | <0.005 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW13-ROX-110311 | 11/3/2011 | | 22.85 | NE | <0.005 | 0.05 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW13-ROX-012012 | 1/20/2012 | | 24.77 | NE | <0.005 | 0.0742 J | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW13-ROX-050712 | 5/7/2012 | | 25.79 | NE | <0.005 | 0.009 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW13-ROX-080812 | 8/8/2012 | | 26.67 | NE | <0.037 U | 0.0069 J | | <0.005 UJ | <0.005 UJ | <0.005 UJ | <0.005 UJ | <0.005 UJ | <0.001 UJ | <0.001 UJ | <0.002 UJ | <0.001 UJ | <0.002 UJ | <0.005 UJ | <0.005 UJ | <0.001 UJ | <0.002 UJ | <0.0005 UJ | <0.025 UJ | <0.001 UJ |
| | MW13-ROX-110812 | 11/8/2012 | | 25.30 | NE | <0.005 | 0.0048 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW13-ROX-012313 | 1/23/2013 | | 29.26 | NE | <0.005 | 0.0067 J | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 UJ | <0.001 |
| | 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 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW13-ROX-071213 | 7/12/2013 | | 25.67 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW13-ROX-100913 | 10/9/2013 | | 26.94 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW13-ROX-012914 | 1/29/2014 | | 29.63 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW13-ROX-041114 | 4/11/2014 | 25.57 - 35.57 | 30.15 | NE | <0.01 | 0.00058 | | <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 | <0.002 | <0.0005 | <0.025 UJ | <0.001 |
| MW-14 | MW14-ROX-110911 | 11/9/2011 | 33.42 - 43.42 | | | <0.005 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW14-ROX-051012 | 5/10/2012 | | NM | NE | <0.005 | 0.009 | | <0.005 | 0.0014 J | 0.0026 J | 0.0012 J | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW14-ROX-080312 | 8/3/2012 | | NM | NE | <0.005 | 0.0131 | | <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 | <0.002 | <0.0005 | <0.025 | 0.00065 J |
| | MW14-ROX-103112 | 10/31/2012 | | 32.02 | NE | <0.005 UJ | 0.00093 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW14-ROX-011813 | 1/18/2013 | | 33.05 | NE | <0.005 | 0.0017 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW14-ROX-041113 | 4/11/2013 | | 33.31 | NE | <0.01 | 0.0125 J | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW14-ROX-071213 | 7/12/2013 | | 30.36 | NE | <0.01 | 0.00064 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW14-ROX-101013 | 10/10/2013 | | 30.80 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW14-ROX-012914 | 1/29/2014 | | 33.67 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW14-ROX-041114 | 4/11/2014 | 33.42 - 43.42 | 34.30 | NE | <0.01 | 0.0017 | | <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 | <0.002 | <0.0005 | <0.025 UJ | <0.001 |
| MW-16 | MW16-ROX-012313 | 1/23/2013 | 37.06 - 47.06 | 43.05 | NE | <0.005 | 0.00057 J | | 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 | <0.002 | <0.0005 | <0.025 UJ | <0.001 |
| | 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 UJ | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW16-ROX-070813 | 7/8/2013 | | 40.62 | NE | <0.01 | <0.00062 U | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW16-ROX-100813 | 10/8/2013 | | 41.62 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW16-ROX-011514 | 1/15/2014 | | 43.76 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW16-ROX-040914 | 4/9/2014 | 37.06 - 47.06 | 44.63 | NE | <0.01 | 0.00034 J | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | VOCs | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Acetone[6] | Benzene | Butane[6] | 2-Butanone[6] | n-Butylbenzene | sec-Butylbenzene | tert-Butylbenzene | Carbon disulfide | Carbon tetrachloride | Chlorobenzene | Chloroethane | Chloroform | Chloromethane | 4-Chlorotoluene | Cymene (p-Isopropyltoluene) | 1,1-Dichloroethane | 1,2-Dichloropropane | trans-1,3-Dichloropropene | 1,4-Dioxane | Ethylbenzene |
| | | | | Screening Values (mg/L) | | 6.3 [1] | 0.005 [1] | | 4.2 [1] | 0.35 [3] | | | 0.7 [1] | 0.005 [1] | 0.1 [1] | | 0.07 [1] | | | | 1.4 [1] | 0.005 [2] | 0.001 [2] | 0.0077 [1] | 0.7 [1] |
| Location | Sample ID | Sample Date | Screened Interval (ft btoc) | Depth to Water (ft btoc) | Product Thickness (ft) | Analytical Results (mg/L) | | | | | | | | | | | | | | | | | | |
| MW-22 | MW22-ROX-012313 | 1/23/2013 | 37.88 - 47.88 | 41.80 | NE | <0.25 | 2.12 | | <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 | <0.1 | <0.025 | <1.3 UJ | 3.45 |
| | MW22-ROX-012313-DUP | 1/23/2013 | | 41.80 | NE | <0.25 | 2.09 | | <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 | <0.1 | <0.025 | <1.3 UJ | 3.19 |
| | MW22-ROX-040513 | 4/5/2013 | | 42.23 | NE | <0.005 UJ | 1.5 | | <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 | <0.002 | <0.0005 | <0.025 | 2.44 |
| | MW22-ROX-071113 | 7/11/2013 | | 39.35 | NE | <0.01 UJ | 1.19 | | <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 | <0.002 | <0.0005 | | 2.07 |
| | MW22-ROX-071113-DUP | 7/11/2013 | | 39.35 | NE | <0.01 UJ | 1.11 | | <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 | <0.002 | <0.0005 | | 1.79 |
| | MW22-ROX-100913 | 10/9/2013 | | 40.39 | NE | <0.01 | 1.33 | | <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 | <0.002 | <0.0005 | <0.025 | 3.79 |
| | MW22-ROX-100913-DUP | 10/9/2013 | | 40.39 | NE | <0.01 | 1.39 | | <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 | <0.002 | <0.0005 | <0.025 | 3.97 |
| | MW22-ROX-012014 | 1/20/2014 | | 42.49 | NE | <0.01 | 1.47 | | 0.0804 | 0.0357 | 0.0128 | 0.0147 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | 0.0094 | 0.0028 | <0.002 | <0.0005 | <0.025 UJ | 3.17 |
| | MW22-ROX-012014-DUP | 1/20/2014 | | 42.49 | NE | <0.01 | 1.58 | | 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 | <0.002 | <0.0005 | <0.025 UJ | 3.4 |
| | MW22-ROX-041014 | 4/10/2014 | 37.88 - 47.88 | 43.15 | NE | 0.0911 J | 1.7 | | 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 | <0.002 | <0.0005 | <0.025 | 3.32 |
| | MW22-ROX-041014-DUP | 4/10/2014 | | 43.15 | NE | <0.01 UJ | 1.56 | | 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 | <0.002 | <0.0005 | <0.025 | 3.02 |
| MW-24 | MW24-ROX-040513 | 4/5/2013 | 38.89 - 48.89 | 43.39 | NE | <0.005 | 0.0029 | | <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 | <0.002 | <0.0005 | <0.025 | 0.0012 |
| | MW24-ROX-071113 | 7/11/2013 | | 40.35 | NE | <0.0157 UJ | <0.0005 | | <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 | <0.002 | <0.0005 | | <0.001 |
| | MW24-ROX-100913 | 10/9/2013 | | 41.27 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW24-ROX-011514 | 1/15/2014 | | 43.47 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | MW24-ROX-040914 | 4/9/2014 | 38.89 - 48.89 | 44.13 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| P-54 | P54-ROX-072411 | 7/24/2011 | 38.00 - 63.00 | 35.38 | NE | <0.005 UJ | 0.0023 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 UJ | <0.001 | <0.002 | <0.005 | <0.005 UJ | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P54-ROX-110311 | 11/3/2011 | | 35.49 | NE | <0.005 | 0.013 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P54-ROX-011712 | 1/17/2012 | | 37.17 | NE | <0.005 | 0.0025 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P54-ROX-050412 | 5/4/2012 | | 38.77 | NE | <0.005 | 0.00082 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P54-ROX-080212 | 8/2/2012 | | 38.95 | NE | <0.005 UJ | <0.0005 | | <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 | <0.002 | <0.0005 | | <0.001 |
| | P54-ROX-103012 | 10/30/2012 | | 40.70 | NE | <0.005 UJ | <0.0005 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P54-ROX-011113 | 1/11/2013 | | 41.56 | NE | <0.005 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P54-ROX-041013 | 4/10/2013 | | 41.80 | NE | <0.01 | 0.172 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P54-ROX-050313 | 5/3/2013 | | 41.80 | NE | <0.01 UJ | 0.0028 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P54-ROX-071113 | 7/11/2013 | | 39.07 | NE | <0.01 UJ | <0.0005 | | <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 | <0.002 | <0.0005 | | <0.001 |
| | P54-ROX-100813 | 10/8/2013 | | 39.94 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P54-ROX-011514 | 1/15/2014 | | 42.20 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P54-ROX-040914 | 4/9/2014 | 38.00 - 63.00 | 42.80 | NE | <0.01 | 0.00081 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| P-55 | P55-ROX-103111 | 10/31/2011 | 39.82 - 64.82 | 39.15 | NE | <0.005 | 0.152 | | <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 | <0.002 | <0.0005 | <0.025 | 0.0143 |
| | P55-ROX-011912 | 1/19/2012 | | 41.09 | NE | <0.005 | <0.197 U | | <0.005 | <0.005 | 0.0036 J | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | 0.0656 |
| | P55-ROX-011912-D | 1/19/2012 | | 41.09 | NE | <0.005 | <0.202 U | | <0.005 | <0.005 | 0.0038 J | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | 0.0683 |
| | P55-ROX-050912 | 5/9/2012 | | 42.44 | NE | <0.005 | 0.388 | | <0.005 | 0.0099 | 0.0093 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | 0.0031 J | <0.001 | <0.002 | <0.0005 | <0.025 | 0.41 |
| | P55-ROX-012113 | 1/21/2013 | 40.43 - 50.43 | 43.60 | NE | <0.25 | 0.571 | | <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 | <0.05 | <0.05 | <0.01 | | 0.316 |
| | P55-ROX-012113 | 1/21/2013 | | 43.60 | NE | <0.005 | 0.538 | | <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 | <0.002 | <0.0005 | <0.025 | 0.366 |
| | P55-ROX-041513 | 4/15/2013 | | 43.63 | NE | <0.02 UJ | 0.434 | | <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 | <0.004 | <0.001 | <0.05 | 0.35 |
| | P55-ROX-071613 | 7/16/2013 | | 40.06 | NE | <0.01 | 0.573 | 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 | <0.002 | <0.0005 | <0.025 | 0.495 |
| | P55-ROX-101013 | 10/10/2013 | | 41.67 | NE | <0.01 | 0.757 | | <0.005 | 0.0239 | 0.0147 | 0.0013 J | <0.005 | <0.001 | <0.001 | 0.005 | <0.001 | 0.0017 J J | <0.005 | 0.0066 | <0.001 | <0.002 | <0.0005 | <0.025 | 0.602 |
| P-56 | P56-ROX-102711 | 10/27/2011 | 40.82 - 65.82 | 39.42 | NE | <0.005 | 0.144 | | <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 | <0.002 | <0.0005 | <0.025 | 0.457 J |
| | P56-ROX-011912 | 1/19/2012 | | 41.81 | NE | <0.005 | 0.335 | | <0.005 | <0.005 | 0.0035 J | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | 0.227 |
| | P56-ROX-050812 | 5/8/2012 | | 43.09 | NE | <0.23 U | 0.144 | | <0.005 | 0.0086 | 0.0051 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | 0.0069 | <0.005 | 0.0044 J | <0.001 | <0.002 | <0.0005 | <0.025 | 1.14 |
| | P56-ROX-080612 | 8/6/2012 | | 43.60 | NE | <0.025 UJ | 0.164 | | <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 | <0.01 | <0.0025 | | 0.101 |
| | P56-ROX-103112 | 10/31/2012 | | 44.80 | NE | <0.005 UJ | 0.176 | | <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 | <0.002 | <0.0005 | <0.025 | 1.29 |
| | P56-ROX-011713 | 1/17/2013 | | 45.65 | NE | <0.025 | 0.191 | | <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 | <0.01 | <0.0025 | <0.13 | 0.0088 |
| | P56-ROX-041213 | 4/12/2013 | | 46.12 | NE | <0.02 U | 0.131 | | <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 | <0.004 | <0.001 | <0.05 | 0.691 |
| | P56-ROX-071513 | 7/15/2013 | | 43.25 | NE | <0.156 U | 0.131 | | <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 | <0.002 | <0.0005 | <0.025 | 2 |
| | P56-ROX-101013 | 10/10/2013 | | 44.48 | NE | <0.01 | 0.14 | | <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 | <0.002 | 0.001 | <0.025 | 1.58 |
| | P56-ROX-012214 | 1/22/2014 | | 46.35 | NE | <0.01 | 0.0895 | | <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 | <0.002 | <0.0005 | <0.025 | 0.305 |
| | P56-ROX-041414 | 4/14/2014 | 40.82 - 65.82 | 47.32 | NE | <0.01 | 0.128 | | <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 | <0.002 | <0.0005 | <0.025 | 0.608 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | VOCs | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Acetone[6] | Benzene | Butane[6] | 2-Butanone[6] | n-Butylbenzene | sec-Butylbenzene | tert-Butylbenzene | Carbon disulfide | Carbon tetrachloride | Chlorobenzene | Chloroethane | Chloroform | Chloromethane | 4-Chlorotoluene | Cymene (p-Isopropyltoluene) | 1,1-Dichloroethane | 1,2-Dichloropropane | trans-1,3-Dichloropropene | 1,4-Dioxane | Ethylbenzene |
| | | | | Screening Values (mg/L) | | 6.3 [1] | 0.005 [1] | | 4.2 [1] | 0.35 [3] | | | 0.7 [1] | 0.005 [1] | 0.1 [1] | | 0.07 [1] | | | | 1.4 [1] | 0.005 [2] | 0.001 [2] | 0.0077 [1] | 0.7 [1] |
| Location | Sample ID | Sample Date | Screened Interval (ft btoc) | Depth to Water (ft btoc) | Product Thickness (ft) | Analytical Results (mg/L) | | | | | | | | | | | | | | | | | | | |
| P-57 | P57-ROX-110811 | 11/8/2011 | 40.46 - 65.46 | 39.20 | NE | <0.5 | 123 | | <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 | <0.2 | <0.05 | <2.5 | 1.1 |
| | P57-ROX-021312 | 2/13/2012 | | 42.13 | NE | <2.5 UJ | 126 | | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <0.5 | <0.5 | <1 | <0.5 | <1 | <2.5 | <2.5 | <0.5 | <1 | <0.25 | <13 | 0.719 |
| | P57-ROX-050712 | 5/7/2012 | | 42.92 | NE | <0.5 | 147 | | <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 | <0.2 | <0.05 | <2.5 | 1.07 |
| | P57-ROX-080612 | 8/6/2012 | | 43.53 | NE | <0.25 UJ | 99.4 J | | <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 | <0.1 | <0.025 | | 0.795 |
| | P57-ROX-080612-DUP | 8/6/2012 | | 43.53 | NE | <0.005 UJ | 106 J | | <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 | <0.002 | <0.0005 | | 0.759 E |
| | P57-ROX-110512 | 11/5/2012 | | 44.98 | NE | <2.5 | 142 | | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <0.5 | <0.5 | <1 | <0.5 | <1 | <2.5 | <2.5 | <0.5 | <1 | <0.25 | <13 | 1.09 |
| | P57-ROX-012913 | 1/29/2013 | | 45.92 | NE | <2.5 | 114 | | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <0.5 | 1.43 | <1 | <0.5 | <1 | <2.5 | <2.5 | <0.5 | <1 | <0.25 | <13 | 1.1 |
| | P57-ROX-041113 | 4/11/2013 | | 46.29 | NE | <5 | 141 | | <5 | <2.5 | <2.5 | <2.5 | <2.5 | <0.5 | <0.5 | <1 | <0.5 | <1 | <2.5 | <2.5 | <0.5 | <1 | <0.25 | <13 | 1.19 |
| | P57-ROX-071613 | 7/16/2013 | | 43.38 | NE | <0.01 | 254 | | <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 | <0.002 | <0.0005 | <0.025 | 1.59 |
| | P57-ROX-101413 | 10/14/2013 | | 44.38 | NE | <0.01 | 288 | | <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 | <0.002 | <0.0005 | <0.025 | 1.1 |
| | P57-ROX-020314 | 2/3/2014 | | 46.57 | NE | <10 | 261 | | <5 | <5 | <5 | <5 | <5 UJ | <1 | <1 | <2 | <1 | <2 | <5 | <5 | <1 | <2 | <0.5 | <25 | 0.697 J |
| | P57-ROX-041514 | 4/15/2014 | 40.46 - 65.46 | 46.70 | NE | <0.01 UJ | 384 | | 0.0055 J | 0.0151 | 0.0131 | 0.0147 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | 0.0114 | <0.001 | <0.002 | <0.0005 | <0.025 | 1.08 |
| P-58 | P58-ROX-102811 | 10/28/2011 | 40.21 - 65.21 | 37.31 | NE | <0.005 | 430 | | <0.005 | <0.005 | 0.0148 | 0.0344 | <0.005 | <0.001 | 0.0014 | <0.002 | <0.001 | <0.002 | <0.005 | 0.0113 | <0.001 | <0.002 | <0.0005 | <0.025 | <5 |
| | P58-ROX-011912 | 1/19/2012 | | 39.73 | NE | <0.005 | 487 | | <0.005 | 0.027 | 0.0215 | 0.056 J | <0.005 | <0.001 | 0.0013 | <0.002 | <0.001 | <0.002 | <0.005 | 0.0149 | <0.001 | <0.002 | <0.0005 | <0.025 | 0.97 J |
| | P58-ROX-011912-D | 1/19/2012 | | 39.73 | NE | <0.005 | 474 | | <0.005 | 0.0235 J | 0.0168 J | 0.0387 J | <0.005 | <0.001 | 0.0014 J | <0.002 | <0.001 | <0.002 | <0.005 | 0.0123 J | <0.001 | <0.002 | <0.0005 | <0.025 | 1.03 |
| | P58-ROX-050712 | 5/7/2012 | | 40.90 | NE | <0.5 | 477 | | <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 | <0.2 | <0.05 | <2.5 | 1.03 |
| | P58-ROX-050712-DUP | 5/7/2012 | | 40.90 | NE | <0.5 | 440 | | <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 | <0.2 | <0.05 | <2.5 | 1 |
| | P58-ROX-080612 | 8/6/2012 | | 41.63 | NE | <0.1 UJ | 313 J | | <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 | <0.04 | <0.01 | | 0.889 |
| | P58-ROX-080612-DUP | 8/6/2012 | | 41.63 | NE | <0.05 | 308 J | | <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 | <0.02 | <0.005 | <0.25 | 0.931 |
| | P58-ROX-110612 | 11/6/2012 | | 43.09 | NE | <0.5 UJ | 415 | | <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 | <0.2 | <0.05 | <2.5 | 0.844 |
| | 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 | <1 | <1 | <2 | <1 | <2 | <5 | <5 | <1 | <2 | <0.5 | <25 | 1.27 |
| | P58-ROX-041113 | 4/11/2013 | | 44.40 | NE | <20 | 532 | | <20 | <10 | <10 | <10 | <10 | <2 | <2 | <4 | <2 | <4 | <10 | <10 | <2 | <4 | <1 | <50 | 1.28 J |
| | P58-ROX-071613 | 7/16/2013 | | 41.49 | NE | <0.01 | 398 | | <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 | <0.002 | <0.0005 | <0.025 | 1.07 |
| | P58-ROX-101413 | 10/14/2013 | | 42.19 | NE | <0.01 | 647 | | <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 | <0.002 | <0.0005 | <0.025 | 1.53 |
| | P58-ROX-020314 | 2/3/2014 | | 44.66 | NE | <10 | 496 | | <5 | <5 | <5 | <5 | <5 UJ | <1 | <1 | <2 | <1 | <2 | <5 | <5 | <1 | <2 | <0.5 | <25 | 0.767 J |
| | P58-ROX-041514 | 4/15/2014 | 40.21 - 65.21 | 45.66 | NE | <0.01 UJ | 782 | | 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 | <0.002 | <0.0005 | <0.025 | 0.891 J |
| P-59 | P59-ROX-102711 | 10/27/2011 | 47.91 - 72.91 | 41.06 | NE | <0.25 | 6.01 | | <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 | <0.1 | <0.025 | <1.3 | 1.49 |
| | P59-ROX-011912 | 1/19/2012 | | 42.88 | NE | <0.005 | 6.61 | | <0.158 U | <0.005 UJ | 0.0054 | 0.0031 J J | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | 0.0036 J | <0.001 | <0.002 | <0.0005 | <0.025 | 1.28 |
| | P59-ROX-011912-DUP | 1/19/2012 | | 42.88 | NE | <0.005 | 7.04 | | <0.185 U | 0.0264 J | 0.0055 | 0.0372 J | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | 0.0038 J | <0.001 | <0.002 | <0.0005 | <0.025 | 1.4 |
| | P59-ROX-050912 | 5/9/2012 | | 44.11 | NE | <0.25 | 7.86 | | <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 | <0.1 | <0.025 | <1.3 | 1.93 |
| | P59-ROX-080212 | 8/2/2012 | | 44.07 | NE | <0.1 UJ | 11 | | <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 | <0.04 | <0.01 | | 1.74 |
| | P59-ROX-110212 | 11/2/2012 | | 45.98 | NE | <0.5 UJ | 10.3 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.1 | <0.1 | <0.2 | <0.1 | <0.2 | <0.5 | <0.5 | <0.1 | <0.2 | <0.05 | <2.5 | 1.87 |
| | 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 | <0.1 | <0.1 | <0.2 | <0.1 | <0.2 | <0.5 | <0.5 | <0.1 | <0.2 | <0.05 | <2.5 | 1.94 |
| | P59-ROX-013013 | 1/30/2013 | | 46.60 | NE | <0.25 | 12.1 | | <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 | <0.1 | <0.025 | <1.3 | 1.9 |
| | P59-ROX-041213 | 4/12/2013 | | 46.95 | NE | <0.5 UJ | 15 | | <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 | <0.1 | <0.025 | <1.3 | 2.85 |
| | P59-ROX-041213-DUP | 4/12/2013 | | 46.95 | NE | <0.5 UJ | 13.4 | | <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 | <0.1 | <0.025 | <1.3 | 2.57 |
| | P59-ROX-071613 | 7/16/2013 | | 44.13 | NE | <0.01 | 10.2 | | <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 | <0.002 | <0.0005 | <0.025 | 2.4 |
| | P59-ROX-101013 | 10/10/2013 | | 45.50 | NE | <0.01 | 14.7 | | <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 | <0.002 | <0.0005 | <0.025 | 3.19 |
| | P59-ROX-020314 | 2/3/2014 | | 47.35 | NE | <0.2 | 15.9 | | <0.1 | 0.0165 J | <0.1 | <0.1 | <0.1 UJ | <0.02 | <0.02 | <0.04 | <0.02 | <0.04 | <0.1 | <0.1 | <0.02 | <0.04 | <0.01 | <0.5 | 1.86 |
| | P59-ROX-041514 | 4/15/2014 | 47.91 - 72.91 | 48.60 | NE | <0.01 UJ | 14.8 | | 0.0253 J | 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 | 0.0023 | <0.002 | <0.0005 | <0.025 | 1.69 |
| P-66 | P66-ROX-110111 | 11/1/2011 | 34.72 - 59.72 | 28.92 | NE | <0.005 | 0.0171 | | <0.005 | 0.0153 | 0.0185 | 0.0063 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 UJ | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | 0.0016 |
| | P66-ROX-051012 | 5/10/2012 | | 32.48 | NE | <0.005 | 0.0193 | | <0.005 | 0.0139 | 0.019 | 0.0059 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | 0.0015 |
| | P66-ROX-080312 | 8/3/2012 | | 30.51 | NE | <0.005 | 0.0994 | | <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 | <0.002 | <0.0005 | <0.025 | 0.0013 |
| | P66-ROX-103112 | 10/31/2012 | | 34.75 | NE | <0.005 | 0.223 | | <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 | <0.002 | <0.0005 | <0.025 | 0.0012 |
| | P66-ROX-011813 | 1/18/2013 | | 35.70 | NE | <0.005 | 0.0896 | | <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 | <0.002 | <0.0005 | <0.025 | 0.0014 |
| | P66-ROX-041113 | 4/11/2013 | | 36.03 | NE | <0.01 | 0.0444 | | <0.01 | 0.0199 | 0.0249 | 0.0104 | <0.005 | <0.001 | <0.001 | 0.00065 J | <0.001 | <0.002 | <0.005 | 0.0093 | <0.001 | <0.002 | <0.0005 | <0.025 | 0.0036 |
| | P66-ROX-071213 | 7/12/2013 | | 33.20 | NE | <0.01 | 0.187 | | <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 | <0.002 | <0.0005 | <0.025 | 0.0022 |
| | P66-ROX-101013 | 10/10/2013 | | 33.66 | NE | 0.0095 J | 0.0646 | | <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 | <0.002 | <0.0005 | <0.025 | 0.0045 |
| | P66-ROX-110713 | 11/7/2013 | | 33.66 | NE | <0.01 | 0.03 | | <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 | <0.002 | <0.0005 | <0.025 | 0.0016 |
| | P66-ROX-012914 | 1/29/2014 | | 36.39 | NE | <0.01 | 0.008 | | <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 | <0.002 | <0.0005 | <0.025 | 0.0013 |
| | P66-ROX-041114 | 4/11/2014 | 34.72 - 59.72 | 37.10 | NE | <0.01 | 0.0052 | | <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 | <0.002 | <0.0005 | <0.025 UJ | 0.0014 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | VOCs | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Acetone[6] | Benzene | Butane[6] | 2-Butanone[6] | n-Butylbenzene | sec-Butylbenzene | tert-Butylbenzene | Carbon disulfide | Carbon tetrachloride | Chlorobenzene | Chloroethane | Chloroform | Chloromethane | 4-Chlorotoluene | Cymene (p-Isopropyltoluene) | 1,1-Dichloroethane | 1,2-Dichloropropane | trans-1,3-Dichloropropene | 1,4-Dioxane | Ethylbenzene |
| | | | | Screening Values (mg/L) | | 6.3 [1] | 0.005 [1] | | 4.2 [1] | 0.35 [3] | | | 0.7 [1] | 0.005 [1] | 0.1 [1] | | 0.07 [1] | | | | 1.4 [1] | 0.005 [2] | 0.001 [2] | 0.0077 [1] | 0.7 [1] |
| Location | Sample ID | Sample Date | Screened Interval (ft btoc) | Depth to Water (ft btoc) | Product Thickness (ft) | Analytical Results (mg/L) | | | | | | | | | | | | | | | | | | | |
| P-74 | P74-ROX-103111 | 10/31/2011 | 44.43 - 69.43 | 36.26 | NE | <0.005 | 5.02 | | <0.005 | 0.0242 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | 0.229 |
| | P74-ROX-011912 | 1/19/2012 | | 38.77 | NE | <0.005 | <0.205 U | | <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 | <0.002 | <0.0005 | <0.025 | 0.0095 |
| | P74-ROX-050712 | 5/7/2012 | | 39.92 | NE | <0.005 | 0.336 | | <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 | <0.002 | <0.0005 | <0.025 | 0.0081 |
| | P74-ROX-080612 | 8/6/2012 | | 40.71 | NE | <0.05 UJ | 2.46 | | <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 | <0.02 | <0.005 | | 0.0782 |
| | P74-ROX-110112 | 11/1/2012 | | 41.72 | NE | <0.1 | 3.5 | | <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 | <0.04 | <0.01 | <0.5 | 0.0493 |
| | P74-ROX-011713 | 1/17/2013 | | 42.65 | NE | <0.1 | 4.99 | | <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 | <0.04 | <0.01 | <0.5 | 0.0997 |
| | P74-ROX-041113 | 4/11/2013 | | 42.83 | NE | <0.01 | 0.144 | | <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 | <0.002 | <0.0005 | <0.025 | 0.0086 |
| | P74-ROX-071513 | 7/15/2013 | | 40.11 | NE | <0.0046 U | 0.117 | | <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 | <0.002 | <0.0005 | <0.025 | 0.0306 |
| | P74-ROX-101413 | 10/14/2013 | | 41.72 | NE | <0.01 | 1.55 | | <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 | <0.002 | <0.0005 | <0.025 | 0.0653 |
| | P74-ROX-012414 | 1/24/2014 | | 43.35 | NE | <0.01 | 4.45 | | <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 | <0.002 | <0.0005 | <0.025 | 0.115 |
| | P74-ROX-041514 | 4/15/2014 | 44.43 - 69.43 | 44.74 | NE | 0.0398 J | 0.0349 | | <0.005 UJ | 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 | <0.002 | <0.0005 | <0.025 | 0.0043 |
| P-93A | P93A-ROX-081811 | 8/18/2011 | 48.17 - 63.17 | 39.40 | NE | <0.005 | 467 | | <0.005 | <0.005 | 0.0071 | 0.0177 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | 0.0049 J | <0.001 | <0.002 | <0.0005 | <0.025 | <10 |
| | P93A-ROX-102611 | 10/26/2011 | | 39.43 | NE | <0.005 UJ | 543 | | <0.005 | <0.005 | 0.006 | 0.015 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | 0.0081 | <0.001 | <0.002 | <0.0005 | <0.025 | 0.304 |
| | P93A-ROX-012012 | 1/20/2012 | | 41.66 | NE | <0.005 | 164 J | | <0.005 | 0.0037 J J | 0.0045 J | 0.0122 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | 0.0023 J | <0.001 | <0.002 | <0.0005 | <0.025 | 0.185 |
| | P93A-ROX-050812 | 5/8/2012 | | 42.75 | NE | <0.0441 U | 200 | | <0.005 UJ | 0.005 J | 0.0069 J | 0.0179 J | <0.005 UJ | <0.001 UJ | <0.001 UJ | <0.002 UJ | <0.001 UJ | <0.002 UJ | <0.005 UJ | 0.0035 J J | <0.001 UJ | <0.002 UJ | <0.0005 UJ | <0.025 UJ | 0.38 J |
| | P93A-ROX-080912 | 8/9/2012 | | 43.66 | NE | <1.63 U | 87 | | <0.005 | 0.0016 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 | <0.002 | <0.0005 | <0.025 | 0.225 |
| | P93A-ROX-110712 | 11/7/2012 | | 45.00 | NE | <0.5 UJ | 148 | | <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 | <0.2 | <0.05 | <2.5 | 0.265 |
| | P93A-ROX-110712-DUP | 11/7/2012 | | 45.00 | NE | <0.5 UJ | 156 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.1 | <0.1 | <0.2 | <0.1 | <0.2 | <0.5 | <0.5 | <0.1 | <0.2 | <0.05 | <2.5 | 0.262 |
| | P93A-ROX-012313 | 1/23/2013 | | 45.89 | NE | <2.5 | 101 | | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <0.5 | <0.5 | <1 | <0.5 | <1 | <2.5 | <2.5 | <0.5 | <1 | <0.25 | <13 UJ | <0.5 |
| | P93A-ROX-012313-DUP | 1/23/2013 | | 45.89 | NE | <2.5 | 98.5 | | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <0.5 | <0.5 | <1 | <0.5 | <1 | <2.5 | <2.5 | <0.5 | <1 | <0.25 | <13 UJ | <0.5 |
| | P93A-ROX-041113 | 4/11/2013 | | 46.29 | NE | <5 | 120 | | <5 | <2.5 | <2.5 | <2.5 | <2.5 | <0.5 | <0.5 | <1 | <0.5 | <1 | <2.5 | <2.5 | <0.5 | <1 | <0.25 | <13 | 0.255 J |
| | P93A-ROX-041113-DUP | 4/11/2013 | | 46.29 | NE | <5 | 120 | | <5 | <2.5 | <2.5 | <2.5 | <2.5 | <0.5 | <0.5 | <1 | <0.5 | <1 | <2.5 | <2.5 | <0.5 | <1 | <0.25 | <13 | <0.5 |
| | P93A-ROX-071813 | 7/18/2013 | | 43.25 | NE | <0.0053 U | 89.1 | | <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 | <0.002 | <0.001 UJ | <0.05 | 0.162 |
| | P93A-ROX-101113 | 10/11/2013 | | 44.18 | NE | <0.01 UJ | 197 | | <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 | <0.002 | <0.0005 | <0.025 | 0.264 |
| | P93A-ROX-012914 | 1/29/2014 | | 46.53 | NE | <5 | 136 | | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <0.5 | <0.5 | <1 | <0.5 | <1 | <2.5 | <2.5 | <0.5 | <1 | <0.25 | <13 | <0.5 |
| | P93A-ROX-041714 | 4/17/2014 | 48.17 - 63.17 | 47.41 | NE | <5 | 132 | | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <0.5 | <0.5 | <1 | <0.5 | <1 | <2.5 | <2.5 | <0.5 | <1 | <0.25 | <13 | <0.5 |
| P-93B | P93B-ROX-081811 | 8/18/2011 | 74.60 - 76.60 | 39.44 | NE | <5 | 304 | | <5 | <5 | <5 | <5 | <5 | <1 | <1 | <2 | <1 | <2 | <5 | <5 | <1 | <2 | <0.5 | <25 | <1 |
| | P93B-ROX-102611 | 10/26/2011 | | 39.48 | NE | <0.005 UJ | 590 | | <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 | <0.002 | <0.0005 | <0.025 | 0.0533 |
| | P93B-ROX-012012 | 1/20/2012 | | 41.72 | NE | <0.005 | 337 | | <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 | <0.002 | <0.0005 | 0.0831 J | 0.0274 J |
| | P93B-ROX-050812 | 5/8/2012 | | 42.79 | NE | <0.0747 U | 304 | | <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 | <0.002 | <0.0005 | <0.025 | 0.0379 J |
| | P93B-ROX-080912 | 8/9/2012 | | 43.69 | NE | <0.0672 UJ | 317 | | <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 | <0.002 | <0.0005 | <0.025 | 0.0741 |
| | P93B-ROX-110712 | 11/7/2012 | | 45.05 | NE | <0.5 UJ | 162 J | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.1 | <0.1 | <0.2 | <0.1 | <0.2 | <0.5 | <0.5 | <0.1 | <0.2 | <0.05 | <2.5 | <0.1 |
| | 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 | <0.1 | <0.1 | <0.2 | <0.1 | <0.2 | <0.5 | <0.5 | <0.1 | <0.2 | <0.05 | <2.5 | 0.0695 J |
| | P93B-ROX-012313 | 1/23/2013 | | 45.89 | NE | <5 | 415 | | <5 | <5 | <5 | <5 | <5 | <1 | <1 | <2 | <1 | <2 | <5 | <5 | <1 | <2 | <0.5 | <25 UJ | <1 |
| | P93B-ROX-041113 | 4/11/2013 | | 46.32 | NE | <5 | 618 | | <5 | <2.5 | <2.5 | <2.5 | <2.5 | <0.5 | <0.5 | <1 | <0.5 | <1 | <2.5 | <2.5 | <0.5 | <1 | <0.25 | <13 | <0.5 |
| | P93B-ROX-071813 | 7/18/2013 | | 43.30 | NE | <0.01 | 296 | | <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 | <0.002 | <0.001 UJ | <0.05 | 0.0652 |
| | P93B-ROX-101613 | 10/16/2013 | | 44.43 | NE | <20 | 187 | | <10 | <10 | <10 | <10 | <10 | <2 | <2 | <4 | <2 | <4 | <10 | <10 | <2 | <4 | <1 | <50 | <2 |
| | P93B-ROX-101613-DUP | 10/16/2013 | | 44.43 | NE | <20 | 180 | | <10 | <10 | <10 | <10 | <10 | <2 | <2 | <4 | <2 | <4 | <10 | <10 | <2 | <4 | <1 | <50 | <2 |
| | P93B-ROX-012814 | 1/28/2014 | | 46.58 | NE | <10 | 242 | | <5 | <5 | <5 | <5 | <5 | <1 | <1 | <2 | <1 | <2 | <5 | <5 | <1 | <2 | <0.5 | <25 | <1 |
| | P93B-ROX-012814-DUP | 1/28/2014 | | 46.58 | NE | <10 UJ | 293 | | <5 UJ | <5 | <5 | <5 | <5 | <1 | <1 | <2 | <1 | <2 | <5 | <5 | <1 | <2 | <0.5 | <25 | <1 |
| | P93B-ROX-041714 | 4/17/2014 | 74.60 - 76.60 | 47.46 | NE | <5 | 134 | | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <0.5 | <0.5 | <1 | <0.5 | <1 | <2.5 | <2.5 | <0.5 | <1 | <0.25 | <13 | <0.5 |
| | P93B-ROX-041714-DUP | 4/17/2014 | | 47.46 | NE | <5 | 126 | | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <0.5 | <0.5 | <1 | <0.5 | <1 | <2.5 | <2.5 | <0.5 | <1 | <0.25 | <13 | <0.5 |
| P-93C | P93C-ROX-081811 | 8/18/2011 | 94.26 - 96.26 | 39.32 | NE | <0.005 | 1.2 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P93C-ROX-102611 | 10/26/2011 | | 39.36 | NE | <0.005 UJ | 0.0014 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P93C-ROX-012012 | 1/20/2012 | | 41.57 | NE | <0.005 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P93C-ROX-050812 | 5/8/2012 | | 42.68 | NE | <0.005 | 0.0057 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P93C-ROX-080912 | 8/9/2012 | | 43.57 | NE | <0.0056 UJ | 0.00084 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P93C-ROX-110812 | 11/8/2012 | | 45.12 | NE | <0.005 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P93C-ROX-012313 | 1/23/2013 | | 45.78 | NE | <0.005 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 UJ | <0.001 |
| | P93C-ROX-041213 | 4/12/2013 | | 46.21 | NE | <0.0056 UJ | <0.0005 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P93C-ROX-071813 | 7/18/2013 | | 43.31 | NE | <0.01 | 101 | | <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 | <0.002 | <0.001 UJ | <0.05 | 0.0041 |
| | P93C-ROX-080813 | 8/8/2013 | | 43.31 | NE | <0.5 | 19.1 | | <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 | <0.1 | <0.025 | <1.3 | <0.05 |
| | P93C-ROX-101613 | 10/16/2013 | | 44.31 | NE | <0.01 | 1.4 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P93C-ROX-012414 | 1/24/2014 | | 46.44 | NE | <0.01 UJ | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P93C-ROX-041714 | 4/17/2014 | 94.26 - 96.26 | 47.34 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | VOCs | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Acetone[6] | Benzene | Butane[6] | 2-Butanone[6] | n-Butylbenzene | sec-Butylbenzene | tert-Butylbenzene | Carbon disulfide | Carbon tetrachloride | Chlorobenzene | Chloroethane | Chloroform | Chloromethane | 4-Chlorotoluene | Cymene (p-isopropyltoluene) | 1,1-Dichloroethane | 1,2-Dichloropropane | trans-1,3-Dichloropropene | 1,4-Dioxane | Ethylbenzene |
| | | | | Screening Values (mg/L) | | 6.3 [1] | 0.005 [1] | | 4.2 [1] | 0.35 [3] | | | 0.7 [1] | 0.005 [1] | 0.1 [1] | | 0.07 [1] | | | | 1.4 [1] | 0.005 [2] | 0.001 [2] | 0.0077 [1] | 0.7 [1] |
| Location | Sample ID | Sample Date | Screened Interval (ft btoc) | Depth to Water (ft btoc) | Product Thickness (ft) | Analytical Results (mg/L) | | | | | | | | | | | | | | | | | | | |
| P-93D | P93D-ROX-081811 | 8/18/2011 | 125.75 - 127.75 | 39.46 | NE | <0.005 | 0.0059 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P93D-ROX-102711 | 10/27/2011 | | 39.59 | NE | <0.005 | 0.00097 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P93D-ROX-012012 | 1/20/2012 | | 41.77 | NE | <0.005 | 0.0513 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P93D-ROX-050812 | 5/8/2012 | | 42.96 | NE | <0.005 | 0.0056 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P93D-ROX-080812 | 8/8/2012 | | 43.71 | NE | <0.005 UJ | 0.0134 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P93D-ROX-110812 | 11/8/2012 | | NM | NE | <0.005 | 0.049 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P93D-ROX-012213 | 1/22/2013 | | 44.21 | NE | <0.005 | 0.106 | | <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 | <0.002 | <0.0005 | <0.025 | 0.00069 J |
| | P93D-ROX-041113 | 4/11/2013 | | 46.37 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P93D-ROX-071213 | 7/12/2013 | | 43.51 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P93D-ROX-101113 | 10/11/2013 | | 44.24 | NE | <0.01 | 0.0014 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P93D-ROX-013114 | 1/31/2014 | | 46.62 | NE | <0.01 | 0.0012 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 UJ | <0.001 | 0.00062 J | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | 0.0044 | <0.0005 | <0.025 UJ | <0.001 |
| | P93D-ROX-041414 | 4/14/2014 | 125.75 - 127.75 | 47.54 | NE | <0.01 | 0.0022 | | <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 | 0.0164 | <0.0005 | <0.025 | <0.001 |
| P-114 | P114-ROX-102811 | 10/28/2011 | 32.67 - 52.67 | 24.73 | NE | <0.005 | <0.001 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P114-ROX-012012 | 1/20/2012 | | 27.17 | NE | <0.005 | 0.0011 J | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P114-ROX-050912 | 5/9/2012 | | 28.09 | NE | <0.005 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P114-ROX-080912 | 8/9/2012 | | 29.13 | NE | <0.0756 UJ | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P114-ROX-110912 | 11/9/2012 | | 30.90 | NE | <0.0144 UJ | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 UJ | <0.001 |
| | P114-ROX-012313 | 1/23/2013 | | 30.22 | NE | <0.005 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 UJ | <0.001 |
| | P114-ROX-041513 | 4/15/2013 | | 31.80 | NE | <0.0059 UJ | <0.0005 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P114-ROX-071813 | 7/18/2013 | | 27.22 | NE | <0.251 U | <0.0005 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | 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 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P114-ROX-101713 | 10/17/2013 | | 29.43 | NE | 0.0047 J | 0.00074 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P114-ROX-012814 | 1/28/2014 | | 32.11 | NE | 0.142 J | 0.0013 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | P114-ROX-042114 | 4/21/2014 | 32.67 - 52.67 | 32.22 | NE | <0.01 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| ROST-3-PZ | ROST3PZ-ROX-051412 | 5/14/2012 | 40.00 - 50.00 | 38.82 | NE | <0.61 U | 0.0074 | | <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 | <0.002 | <0.0005 | <0.025 | 0.0167 |
| | ROST3PZ-ROX-080712 | 8/7/2012 | | 39.00 | NE | <0.005 | 0.0041 | | <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 | <0.002 | <0.0005 | <0.025 | 0.0047 |
| | ROST3PZ-ROX-110112 | 11/1/2012 | | 40.82 | NE | <0.005 | 0.0052 | | <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 | <0.002 | <0.0005 | <0.025 | 0.0018 |
| ROST-3-MW | ROST3MW-ROX-012313 | 1/23/2013 | 37.81 - 47.81 | 41.50 | NE | <0.005 | 0.0051 J | | <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 | <0.002 | <0.0005 | <0.025 UJ | 0.0296 |
| | ROST3MW-ROX-040513 | 4/5/2013 | | | | <0.005 UJ | 0.0605 | | <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 | <0.002 | <0.0005 | <0.025 | 0.0136 |
| | ROST3MW-ROX-071113 | 7/11/2013 | | 39.50 | NE | <0.01 UJ | 0.0125 | | <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 | <0.002 | <0.0005 | | 0.218 |
| | ROST3-MW-ROX-100913 | 10/9/2013 | | 40.16 | NE | <0.01 | 0.0033 | | <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 | <0.002 | <0.0005 | <0.025 | 0.0182 |
| | ROST3MW-ROX-011714 | 1/17/2014 | | 42.20 | NE | <0.01 | 0.004 | | <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 | <0.002 | <0.0005 | <0.025 | 0.008 |
| | ROST3MW-ROX-041014 | 4/10/2014 | 37.81 - 47.81 | 42.80 | NE | <0.01 | 0.0075 | | <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 | <0.002 | <0.0005 | <0.025 | 0.0055 |
| ROST-4-PZ(C) | ROST4PZ-C-051412 | 5/14/2012 | 34.95 - 44.95 | 39.04 | NE | <0.005 | <0.0005 | | <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 | <0.002 | <0.0005 | <0.025 | <0.001 |
| | ROST4PZ-C-ROX-072512 | 7/25/2012 | | 39.10 | NE | <0.005 | 0.0849 | | <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 | <0.002 | <0.0005 | <0.025 | 0.177 |
| | ROST4PZC-ROX-102912 | 10/29/2012 | | 40.75 | NE | <0.005 UJ | 0.0033 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 UJ | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | 0.0014 |
| | ROST4PZ(C)-ROX-011113 | 1/11/2013 | | 41.42 | NE | <0.005 | <0.0005 | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | <0.005 | <0.001 | <0.002 | <0.0005 | <0.025 | 0.0013 |
| | ROST4PZC-ROX-041013 | 4/10/2013 | | 42.27 | NE | <0.01 | 0.0153 J | | <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 | <0.002 UJ | <0.0005 UJ | <0.025 | 0.0028 J |
| | ROST4PZC-ROX-071113 | 7/11/2013 | | 40.18 | NE | <0.01 UJ | 0.0497 | | <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 | <0.002 | <0.0005 | | 0.0651 |
| | ROST4PZC-ROX-100913 | 10/9/2013 | | 39.91 | NE | <0.01 | 0.00066 | | <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 | <0.002 | <0.0005 | <0.025 | 0.0064 |
| | ROST4PZC-ROX-011714 | 1/17/2014 | | 41.92 | NE | <0.01 | 0.0015 | | <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 | <0.002 | <0.0005 | <0.025 | 0.0039 |
| | ROST4PZC-ROX-041014 | 4/10/2014 | 34.95 - 44.95 | 42.05 | NE | <0.01 | 0.0019 | | <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 | <0.002 | <0.0005 | <0.025 | 0.00059 J |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | VOCs | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Acetone[6] | Benzene | Butane[6] | 2-Butanone[6] | n-Butylbenzene | sec-Butylbenzene | tert-Butylbenzene | Carbon disulfide | Carbon tetrachloride | Chlorobenzene | Chloroethane | Chloroform | Chloromethane | 4-Chlorotoluene | Cymene (p-Isopropyltoluene) | 1,1-Dichloroethane | 1,2-Dichloropropane | trans-1,3-Dichloropropene | 1,4-Dioxane | Ethylbenzene |
| | | | | | Screening Values (mg/L) | 6.3 [1] | 0.005 [1] | | 4.2 [1] | 0.35 [3] | | | 0.7 [1] | 0.005 [1] | 0.1 [1] | | 0.07 [1] | | | | 1.4 [1] | 0.005 [2] | 0.001 [2] | 0.0077 [1] | 0.7 [1] |
| Location | Sample ID | Sample Date | Screened Interval (ft btoc) | Depth to Water (ft btoc) | Product Thickness (ft) | Analytical Results (mg/L) | | | | | | | | | | | | | | | | | | | |
| T-12 | T12-ROX-102711 | 10/27/2011 | 46.72 - 72.72 | 38.54 | NE | <0.05 | 1.09 | | <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 | <0.02 | <0.005 | <0.25 | 0.648 |
| | T12-ROX-011912 | 1/19/2012 | | 41.0 | NE | <0.005 | 1.51 | | <0.005 | 0.0062 | 0.0022 J | <0.005 | <0.005 | <0.001 | <0.001 | <0.002 | <0.001 | <0.002 | <0.005 | 0.0024 J | <0.001 | <0.002 | <0.0005 | <0.025 | 0.285 |
| | T12-ROX-050912 | 5/9/2012 | | 42.62 | NE | <0.025 | 1.48 | | <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 | <0.01 | <0.0025 | <0.13 | 1.88 |
| | T12-ROX-080212 | 8/2/2012 | | 41.92 | NE | <0.05 UJ | 1.64 | | <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 | <0.02 | <0.005 | | 0.573 |
| | T12-ROX-110512 | 11/5/2012 | | 43.91 | NE | <0.05 | 1.71 | | <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 | <0.02 | <0.005 | <0.25 | 1.73 |
| | T12-ROX-011813 | 1/18/2013 | | 44.50 | NE | <0.025 | 2.03 J | | <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 | <0.01 | <0.0025 | <0.13 UJ | 0.426 |
| | T12-ROX-041513 | 4/15/2013 | | 44.99 | NE | <0.1 UJ | 1.61 | | <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 | <0.02 | <0.005 | <0.25 | 1.03 |
| | T12-ROX-071613 | 7/16/2013 | | 42.33 | NE | <0.01 | 1.65 | | <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 | <0.002 | <0.0005 | <0.025 | 0.45 |
| | T12-ROX-101513 | 10/15/2013 | | 43.73 | NE | 0.0803 | 2.02 | | 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 | <0.01 | <0.0025 | <0.13 | 1.82 |
| | T12-ROX-012414 | 1/24/2014 | | 45.26 | NE | <0.01 | 2.48 | | <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 | <0.002 | <0.0005 | <0.025 | 0.518 |
| | T12-ROX-041514 | 4/15/2014 | 46.72 - 72.72 | 46.72 | NE | <0.01 UJ | 2.07 | | 0.017 J | 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 | <0.002 | <0.0005 | <0.025 | 0.376 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | VOCs | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Ethyl methacrylate | Hexachlorobutadiene | Hexane[6] | 2-Hexanone (Methyl N-Butyl Ketone) | Isopentane[6] | Isopropylbenzene (Cumene) | 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) | Methyl tert-Butyl Ether (MTBE) | Naphthalene[4] | n-Propylbenzene | Toluene | 1,2,3-Trichlorobenzene | 1,2,4-Trichlorobenzene | 1,1,2-Trichloroethane | 1,2,3-Trimethylbenzene[6] | 1,2,4-Trimethylbenzene | 1,3,5-Trimethylbenzene | Vinyl acetate | m,p-Xylenes | o-Xylenes | Xylenes (total) |
| | | | | | Screening Values (mg/L) | | 0.007 [3] | 0.42 [3] | 0.035 [3] | | 0.7 [1] | 0.56 [3] | 0.07 [1] | 0.14 [1] | 0.7 [3] | 1.0 [1] | 0.0056 [3] | 0.07 [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-072711 | 7/27/2011 | 43.41 - 58.41 | 35.77 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0055 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW1-ROX-120511 | 12/5/2011 | | 37.10 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0027 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW1-ROX-011612 | 1/16/2012 | 48.80 - 58.80 | 37.75 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0032 | 0.000079 J | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW1-ROX-050112 | 5/1/2012 | | 39.09 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0031 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW1-ROX-073012 | 7/30/2012 | | 39.39 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0022 | 0.0001 J | <0.005 | <0.001 | <0.005 | <0.005 | <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 | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0022 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW1-ROX-011013 | 1/10/2013 | | 41.89 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0015 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW1-ROX-040913 | 4/9/2013 | | 42.55 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0012 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW1-ROX-070813 | 7/8/2013 | | 39.56 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0049 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW1-ROX-100313 | 10/3/2013 | | 40.28 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0013 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW1-ROX-011414 | 1/14/2014 | | 42.77 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0018 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW1-ROX-040714 | 4/7/2014 | 48.80 - 58.80 | 43.28 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| MW-02 | MW2-ROX-072711 | 7/27/2011 | 47.19 - 62.19 | 37.04 | NE | <0.05 | <0.05 | | <0.05 | | 0.0995 | <0.05 | <0.01 | 0.0671 | 0.111 | 4.69 | <0.05 | <0.05 | <0.01 | | 0.338 | 0.116 | <0.05 | 2.91 | 0.823 | 3.74 |
| | MW2-ROX-072711-DUP | 7/27/2011 | | 37.04 | NE | <0.05 | <0.05 | | <0.05 | | 0.0967 | <0.05 | <0.01 | 0.0659 | 0.1 | 4.67 | <0.05 | <0.05 | <0.01 | | 0.298 | 0.108 | <0.05 | 2.63 | 0.728 | 3.36 |
| | MW2-ROX-112811 | 11/28/2011 | 49.87 - 59.87 | 38.03 | NE | <0.005 | <0.005 | | <0.005 | | 0.128 | <0.005 | <0.001 | 0.0777 | 0.146 | 0.0328 | <0.005 | <0.005 | <0.001 | | 0.407 | 0.212 | <0.005 | 0.747 | 0.0574 | 0.804 |
| | MW2-ROX-011612 | 1/16/2012 | | 38.89 | NE | <0.025 | <0.025 | | <0.025 | | 0.0832 | <0.025 | <0.005 | 0.0859 | 0.0993 | 0.0375 | <0.025 | <0.025 | <0.005 | | 0.388 | 0.162 | <0.025 | 0.857 | 0.056 | 0.913 |
| | MW2-ROX-050112 | 5/1/2012 | | 40.25 | NE | <0.025 | <0.025 | | <0.025 | | 0.0886 | <0.025 | <0.005 | 0.0497 | 0.119 | 0.0445 | <0.025 | <0.025 | <0.005 | | 0.413 | 0.154 | <0.025 | 1.14 | 0.0797 | 1.22 |
| | MW2-ROX-073012 | 7/30/2012 | | 40.60 | NE | <0.005 | <0.005 | | <0.005 | | 0.0818 | <0.005 | <0.001 | 0.0554 | 0.116 | 0.0374 | <0.005 | <0.005 | <0.001 | | 0.338 | 0.135 | <0.005 | 1.27 | 0.0906 | 1.34 |
| | MW2-ROX-102612 | 10/26/2012 | | 42.35 | NE | <0.025 | <0.025 | | <0.025 | | 0.0764 | <0.025 | 0.0115 | 0.0821 | 0.104 | 0.0216 | <0.025 | <0.025 | <0.005 | | 0.299 | 0.129 | <0.025 | 0.878 | 0.052 | 0.93 |
| | MW2-ROX-011113 | 1/11/2013 | | 42.94 | NE | <0.01 | <0.01 | | <0.01 | | 0.0879 | <0.01 | <0.002 | 0.0768 | 0.121 | 0.0093 | <0.01 | <0.01 | <0.002 | | 0.219 | 0.105 | <0.01 | 0.685 | 0.0287 | 0.713 |
| | MW2-ROX-040913 | 4/9/2013 | | 43.70 | NE | <0.025 | <0.025 | | <0.025 | | 0.085 | <0.025 | <0.005 | 0.0578 | 0.11 | 0.0073 | <0.025 | <0.025 | <0.005 | | 0.338 | 0.155 | <0.025 | 1.01 | 0.0454 | 1.05 |
| | MW2-ROX-071113 | 7/11/2013 | | 40.82 | NE | <0.005 | <0.005 | | <0.005 UJ | | 0.0931 | <0.005 | 0.0062 | 0.114 | 0.127 | 0.11 | <0.005 | <0.005 | <0.001 | | 0.522 | 0.175 | <0.005 UJ | 1.88 | 0.174 | 1.88 |
| | MW2-ROX-100813 | 10/8/2013 | | 41.73 | NE | <0.005 | <0.005 | | 0.0079 | | 0.0983 | <0.005 | 0.0032 | 0.0939 | 0.132 | 0.0164 | <0.005 | <0.005 | <0.001 | | 0.368 | 0.174 | 0.0768 | 0.912 | 0.0519 | 0.912 |
| | MW2-ROX-012014 | 1/20/2014 | | 44.00 | NE | <0.005 | <0.005 | | <0.005 | | 0.102 | <0.005 | <0.001 | 0.0663 | 0.133 | 0.0099 | <0.005 | <0.005 | <0.001 | | 0.264 | 0.156 | <0.005 | 0.486 | 0.0304 | 0.516 |
| | MW2-ROX-041014 | 4/10/2014 | 49.87 - 59.87 | 44.66 | NE | <0.005 | <0.005 | | <0.005 | | 0.0816 | <0.005 | <0.001 | 0.0474 | 0.106 | 0.0072 | <0.005 | <0.005 | <0.001 | | 0.181 | 0.121 | <0.005 | 0.444 | 0.0275 | 0.472 |
| MW-03 | MW3-ROX-080311 | 8/3/2011 | 30.98 - 45.98 | 22.72 | NE | <0.005 | <0.005 | | <0.005 | | 0.0012 J | <0.005 | <0.001 | <0.000083 U | <0.005 | 0.0015 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW3-ROX-112911 | 11/29/2011 | 34.67 - 44.67 | 24.06 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0014 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW3-ROX-112911-DUP | 11/29/2011 | | 24.06 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0014 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW3-ROX-011612 | 1/16/2012 | | 24.93 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW3-ROX-043012 | 4/30/2012 | | 26.19 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0039 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW3-ROX-072712 | 7/27/2012 | | 26.60 | NE | <0.005 | <0.005 | | <0.005 UJ | | <0.005 | <0.005 | <0.001 | <0.00011 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.001 |
| | MW3-ROX-102512 | 10/25/2012 | | 28.39 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0027 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW3-ROX-010913 | 1/9/2013 | | 29.35 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0008 J | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | 0.007 | <0.001 | <0.001 | <0.001 |
| | MW3-ROX-040813 | 4/8/2013 | | 29.74 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 UJ | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW3-ROX-071113 | 7/11/2013 | | 26.32 | NE | <0.005 | <0.005 | | <0.005 UJ | | 0.0049 J | <0.005 | 0.0035 | <0.005 | 0.0055 | 0.0013 | <0.005 | <0.005 | <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 | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.00075 J | <0.005 | 0.0021 J | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | 0.0197 | 0.0011 | <0.001 | 0.0011 |
| | MW3-ROX-011614 | 1/16/2014 | | 29.91 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 UJ | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW3-ROX-040914 | 4/9/2014 | 34.67 - 44.67 | 30.50 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | VOCs | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Ethyl methacrylate | Hexachlorobutadiene | Hexane[6] | 2-Hexanone (Methyl N-Butyl Ketone) | Isopentane[6] | Isopropylbenzene (Cumene) | 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) | Methyl tert-Butyl Ether (MTBE) | Naphthalene[4] | n-Propylbenzene | Toluene | 1,2,3-Trichlorobenzene | 1,2,4-Trichlorobenzene | 1,1,2-Trichloroethane | 1,2,3-Trimethylbenzene[6] | 1,2,4-Trimethylbenzene | 1,3,5-Trimethylbenzene | Vinyl acetate | m,p-Xylenes | o-Xylenes | Xylenes (total) |
| | | | | | Screening Values (mg/L) | | 0.007 [3] | 0.42 [3] | 0.035 [3] | | 0.7 [1] | 0.56 [3] | 0.07 [1] | 0.14 [1] | 0.7 [3] | 1.0 [1] | 0.0056 [3] | 0.07 [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-072611 | 7/26/2011 | 42.63 - 57.63 | 34.15 | NE | <0.005 | <0.005 | | <0.005 | | 0.0088 | <0.005 | 0.0113 | 0.00025 | 0.0085 | 0.017 | <0.005 | <0.005 | <0.001 | | <0.005 | 0.0052 | <0.005 | 0.0067 | <0.001 | 0.0067 |
| | MW4-ROX-072611-DUP | 7/26/2011 | | 34.15 | NE | <0.005 | <0.005 | | <0.005 | | 0.0088 | <0.005 | 0.0103 | 0.00021 | 0.0083 | 0.0162 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | 0.0063 | <0.001 | 0.0063 |
| | MW4-ROX-121511 | 12/15/2011 | | 33.99 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0073 J | 0.00023 | <0.005 | 0.0092 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | 0.0069 | 0.001 | 0.0079 |
| | MW4-ROX-011612 | 1/16/2012 | 46.06 - 56.06 | 36.00 | NE | 0.0017 J | <0.005 | | <0.005 | | 0.0061 | <0.005 | <0.001 | <0.0001 | 0.0061 | 0.0283 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | 0.0148 | 0.0025 | 0.0173 |
| | MW4-ROX-050312 | 5/3/2012 | | 37.45 | NE | <0.005 | <0.005 | | <0.005 | | 0.0038 J | <0.005 | 0.0174 | <0.0001 | <0.005 | 0.0255 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | 0.016 | 0.003 | 0.0189 |
| | MW4-ROX-050312-DUP | 5/3/2012 | | 37.45 | NE | <0.005 | <0.005 | | <0.005 | | 0.0036 J | <0.005 | 0.0162 | <0.0001 | 0.0043 J | 0.0252 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | 0.0151 | 0.0031 | 0.0182 |
| | MW4-ROX-072512 | 7/25/2012 | | 37.63 | NE | <0.005 | <0.005 UJ | | <0.005 | | 0.0061 | <0.005 | 0.015 | <0.0001 | 0.0071 | 0.0418 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | 0.0221 | 0.0042 | 0.0262 |
| | MW4-ROX-072512-Dup | 7/25/2012 | | 37.63 | NE | <0.005 | <0.005 UJ | | <0.005 | | 0.0063 | <0.005 | 0.0154 | <0.0001 | 0.0072 | 0.0427 | <0.005 | <0.005 | <0.001 | | 0.00068 J | 0.0057 | <0.005 | 0.0214 | 0.0043 | 0.0257 |
| | MW4-ROX-102912 | 10/29/2012 | | 39.45 | NE | <0.01 | <0.01 | | <0.01 | | 0.0029 J | <0.01 | 0.0324 | <0.01 | 0.0033 J | 0.0175 | <0.01 | <0.01 | <0.002 | | <0.01 | <0.01 | <0.01 | 0.0114 | <0.002 | 0.0114 |
| | MW4-ROX-011113 | 1/11/2013 | | 40.20 | NE | <0.005 | <0.005 | | <0.005 | | 0.0012 J | <0.005 | 0.0654 | <0.005 | 0.0026 J | 0.0075 | <0.005 | <0.005 | <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 | <0.005 | <0.005 | | <0.005 | | 0.0014 J | <0.005 | 0.0681 | <0.005 | 0.003 J | 0.0083 | <0.005 | <0.005 | <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 | <0.5 | <0.5 | | <0.5 | | <0.5 | <0.5 | 0.112 | <0.5 | <0.5 | <0.1 | <0.5 | <0.5 | <0.1 | | <0.5 | <0.5 | <0.5 | <0.1 | <0.1 | <0.1 |
| | MW4-ROX-040913 | 4/9/2013 | | 40.90 | NE | <0.01 | <0.01 | | <0.01 | | <0.01 | <0.01 | 0.112 | <0.01 | <0.01 | 0.0057 | <0.01 | <0.01 | <0.002 | | <0.01 | <0.01 | <0.01 | 0.0052 | <0.002 | 0.0062 |
| | MW4-ROX-040913-DUP | 4/9/2013 | | 40.90 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.125 | <0.005 | 0.004 J | 0.0076 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | 0.0073 | 0.0011 | 0.0084 |
| | MW4-ROX-071713 | 7/17/2013 | | 37.61 | NE | <0.005 | <0.005 | | 0.0041 J | | 0.0067 | <0.005 | 0.0559 J | <0.005 | 0.008 | 0.0381 | <0.005 | <0.005 | 0.00085 J | | 0.0012 J | <0.005 | 0.0392 J | 0.0302 | 0.0052 | 0.0353 |
| | MW4-ROX-101613 | 10/16/2013 | | 38.80 | NE | <0.05 UJ | <0.05 | | <0.05 | | <0.05 | <0.05 | 0.0333 J | <0.05 | <0.05 | <0.01 | <0.05 | <0.05 | <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 | <0.005 | <0.005 | | <0.005 | | 0.0021 J | <0.005 | <0.001 | <0.005 | 0.0026 J | 0.0037 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | 0.0132 | 0.0049 | 0.0181 |
| | MW4-ROX-041614 | 4/16/2014 | 46.06 - 56.06 | 41.91 | NE | <0.005 | <0.005 | | <0.005 | | 0.00059 J | <0.005 | <0.001 | <0.005 | 0.00081 J | 0.00099 J | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | 0.0027 | 0.00039 J | 0.0031 |
| MW-05 | MW5-ROX-072611 | 7/26/2011 | 31.13 - 46.13 | 22.00 | NE | <0.005 | <0.005 | | <0.005 | | 0.0161 | <0.005 | 0.0031 | <0.0001 U | 0.0105 | 0.0017 | <0.005 | <0.005 | <0.001 | | <0.005 | 0.0055 | <0.005 | 0.0074 | <0.001 | 0.0074 |
| | MW5-ROX-072611-DUP | 7/26/2011 | | 22.00 | NE | <0.005 | <0.005 | | <0.005 | | 0.016 | <0.005 | 0.0031 | <0.00015 U | 0.0104 | 0.0016 | <0.005 | <0.005 | <0.001 | | <0.005 | 0.0055 | <0.005 | 0.0068 | <0.001 | 0.0068 |
| | MW5-ROX-112111 | 11/21/2011 | 33.97 - 43.97 | 23.46 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0069 | <0.00014 U | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW5-ROX-011712 | 1/17/2012 | | 24.76 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0187 | <0.00011 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.00081 U |
| | MW5-ROX-050312 | 5/3/2012 | | 25.89 | NE | <0.005 | <0.005 | | <0.005 | | 0.001 J | <0.005 | 0.022 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW5-ROX-072512 | 7/25/2012 | | 26.18 | NE | <0.005 | <0.005 UJ | | <0.005 | | 0.0066 | <0.005 | 0.013 | 0.00032 | 0.0018 J | 0.0032 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | 0.008 | 0.0017 | 0.0097 |
| | MW5-ROX-102912 | 10/29/2012 | | 28.16 | NE | <0.005 | <0.005 | | <0.005 | | 0.002 J | <0.005 | 0.0219 | <0.005 | <0.005 | 0.0018 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | 0.0018 | <0.001 | 0.0018 |
| | MW5-ROX-011113 | 1/11/2013 | | 28.75 | NE | <0.005 | <0.005 | | <0.005 | | 0.00086 J | <0.005 | 0.0295 | <0.005 | <0.005 | 0.0008 J | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW5-ROX-040913 | 4/9/2013 | | 29.41 | NE | <0.005 | <0.005 | | <0.005 | | 0.00085 J | <0.005 | 0.0427 | <0.005 | <0.005 | 0.002 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | 0.001 | <0.001 | 0.0014 |
| | MW5-ROX-070913 | 7/9/2013 | | 26.04 | NE | <0.005 | <0.005 | | <0.005 | | 0.0268 | <0.005 | 0.0121 | <0.005 | 0.0132 | 0.0029 | <0.005 | <0.005 | 0.0018 | | <0.005 | <0.005 | <0.005 UJ | 0.0079 | 0.0018 | 0.0097 |
| | MW5-ROX-100813 | 10/8/2013 | | 26.97 | NE | <0.005 | <0.005 | | <0.005 | | 0.0045 J | <0.005 | 0.0221 | <0.005 | <0.005 | 0.002 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | 0.0129 | 0.0044 | 0.00097 J | 0.0054 |
| | MW5-ROX-011714 | 1/17/2014 | | 29.59 | NE | <0.005 | <0.005 | | <0.005 | | 0.00097 J | <0.005 | 0.0282 | <0.005 | <0.005 | 0.0014 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | 0.0081 | 0.0045 | 0.0127 |
| | MW5-ROX-041014 | 4/10/2014 | 33.97 - 43.97 | 30.09 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0344 | 0.001 J | <0.005 | 0.0013 | <0.005 | <0.005 | <0.001 | | 0.00052 J | <0.005 | <0.005 | 0.0013 | 0.00095 J | 0.0023 |
| MW-06A | MW6A-ROX-072611 | 7/26/2011 | 34.83 - 44.83 | 23.76 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0237 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6A-ROX-112111 | 11/21/2011 | | 25.49 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0169 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6A-ROX-112111-DUP | 11/21/2011 | | 25.49 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0181 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6A-ROX-011712 | 1/17/2012 | | 26.74 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0185 | <0.00011 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6A-ROX-050212 | 5/2/2012 | | 27.77 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6A-ROX-080112 | 8/1/2012 | | 28.36 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0019 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6A-ROX-102412 | 10/24/2012 | | 30.06 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6A-ROX-011413 | 1/14/2013 | | 31.00 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6A-ROX-040313 | 4/3/2013 | | 31.62 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6A-ROX-070913 | 7/9/2013 | | 28.25 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0027 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <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 | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0025 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.001 |
| | MW6A-ROX-100713 | 10/7/2013 | | 28.87 | NE | <0.005 | <0.005 | | <0.005 UJ | | <0.005 | <0.005 | 0.0131 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6A-ROX-100713-DUP | 10/7/2013 | | 28.87 | NE | <0.005 | <0.005 | | <0.005 UJ | | <0.005 | <0.005 | 0.0132 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6A-ROX-011614 | 1/16/2014 | | 31.62 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0108 | <0.005 UJ | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6A-ROX-011614-DUP | 1/16/2014 | | 31.62 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0103 | <0.005 UJ | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6A-ROX-040814 | 4/8/2014 | 34.83 - 44.83 | 32.16 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.00086 J | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6A-ROX-040814-DUP | 4/8/2014 | | 32.16 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | VOCs | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Ethyl methacrylate | Hexachlorobutadiene | Hexane[6] | 2-Hexanone (Methyl N-Butyl Ketone) | Isopentane[6] | Isopropylbenzene (Cumene) | 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) | Methyl tert-Butyl Ether (MTBE) | Naphthalene[4] | n-Propylbenzene | Toluene | 1,2,3-Trichlorobenzene | 1,2,4-Trichlorobenzene | 1,1,2-Trichloroethane | 1,2,3-Trimethylbenzene[6] | 1,2,4-Trimethylbenzene | 1,3,5-Trimethylbenzene | Vinyl acetate | m,p-Xylenes | o-Xylenes | Xylenes (total) |
| | | | | | Screening Values (mg/L) | | 0.007 [3] | 0.42 [3] | 0.035 [3] | | 0.7 [1] | 0.56 [3] | 0.07 [1] | 0.14 [1] | 0.7 [3] | 1.0 [1] | 0.0056 [3] | 0.07 [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-072311 | 7/23/2011 | 64.05 - 69.05 | 23.60 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0049 | 0.0012 B | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.001 |
| | MW6B-ROX-110311 | 11/3/2011 | | 24.67 | NE | <0.05 | <0.05 | | <0.05 | | <0.05 | <0.05 | 0.036 J | <0.0001 | <0.05 | <0.01 | <0.05 | <0.05 | <0.01 | | <0.05 | <0.05 | <0.05 | <0.01 | <0.01 | <0.01 |
| | MW6B-ROX-011712 | 1/17/2012 | | 26.77 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0049 | <0.00011 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6B-ROX-050212 | 5/2/2012 | | 27.82 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0115 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6B-ROX-080112 | 8/1/2012 | | 28.39 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0122 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6B-ROX-102412 | 10/24/2012 | | 30.11 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0091 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6B-ROX-011713 | 1/17/2013 | | 31.11 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0166 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6B-ROX-040313 | 4/3/2013 | | 31.68 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0132 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6B-ROX-070913 | 7/9/2013 | | 28.25 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0069 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.001 |
| | MW6B-ROX-100713 | 10/7/2013 | | 28.93 | NE | <0.005 | <0.005 | | <0.005 UJ | | <0.005 | <0.005 | 0.0113 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6B-ROX-011614 | 1/16/2014 | | 31.67 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0069 | <0.005 UJ | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6B-ROX-040814 | 4/8/2014 | 64.05 - 69.05 | 32.21 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0047 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| MW-06C | MW6C-ROX-072411 | 7/24/2011 | 84.95 - 89.95 | 23.43 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0027 | 0.00075 B | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.001 |
| | MW6C-ROX-110311 | 11/3/2011 | | 24.47 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0039 J | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6C-ROX-011712 | 1/17/2012 | | 26.50 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.00011 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6C-ROX-050212 | 5/2/2012 | | 27.62 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6C-ROX-080112 | 8/1/2012 | | 28.15 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6C-ROX-102412 | 10/24/2012 | | 27.85 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6C-ROX-011713 | 1/17/2013 | | 30.88 | NE | <0.005 UJ | <0.005 UJ | | <0.005 UJ | | <0.005 UJ | <0.005 UJ | 0.0012 J | <0.005 UJ | <0.005 UJ | <0.001 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 | <0.001 UJ |
| | MW6C-ROX-040313 | 4/3/2013 | | 31.41 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0022 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6C-ROX-070913 | 7/9/2013 | | 28.03 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.001 |
| | MW6C-ROX-100713 | 10/7/2013 | | 28.72 | NE | <0.005 | <0.005 | | <0.005 UJ | | <0.005 | <0.005 | 0.00075 J | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6C-ROX-011614 | 1/16/2014 | | 31.48 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.00068 J | <0.005 UJ | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6C-ROX-040814 | 4/8/2014 | 84.95 - 89.95 | 32.01 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| MW-06D | MW6D-ROX-072311 | 7/23/2011 | 104.72 - 109.72 | 23.29 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | 0.00074 B | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.001 |
| | MW6D-ROX-110311 | 11/3/2011 | | 24.31 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6D-ROX-011712 | 1/17/2012 | | 26.33 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.00016 U | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6D-ROX-050212 | 5/2/2012 | | 27.45 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6D-ROX-080212 | 8/2/2012 | | 30.56 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6D-ROX-102412 | 10/24/2012 | | 29.71 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6D-ROX-011713 | 1/17/2013 | | 30.75 | NE | <0.005 UJ | <0.005 UJ | | <0.005 UJ | | <0.005 UJ | <0.005 UJ | <0.001 UJ | <0.005 UJ | <0.005 UJ | <0.001 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 | <0.001 UJ |
| | MW6D-ROX-040313 | 4/3/2013 | | 31.27 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6D-ROX-070913 | 7/9/2013 | | 27.91 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.001 |
| | MW6D-ROX-100713 | 10/7/2013 | | 28.58 | NE | <0.005 | <0.005 | | <0.005 UJ | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6D-ROX-011614 | 1/16/2014 | | 31.33 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.00061 J | <0.005 UJ | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW6D-ROX-040814 | 4/8/2014 | 104.72 - 109.72 | 31.85 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.00094 J | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| MW-07 | MW7-ROX-072411 | 7/24/2011 | 42.92 - 52.92 | 35.65 | NE | <25 | <25 | | <25 | | <25 | <25 | <5 | 0.0081 | <25 | <5 | <25 | <25 | <5 | | <25 | <25 | <25 UJ | <5 | <5 | <5 |
| | MW-7-ROX-110211 | 11/2/2011 | | 35.95 | NE | <5 | <5 | | <5 | | <5 | <5 | <1 | 0.0113 | <5 | <1 | <5 | <5 | <1 | | <5 | <5 | <5 | <1 | <1 | <1 |
| | MW7-ROX-011812 | 1/18/2012 | | 38.10 | NE | <0.005 | <0.005 | | <0.005 | | 0.0101 | <0.005 | 0.0022 | 0.0134 | 0.0135 | 0.158 | <0.005 | <0.005 | <0.001 | | 0.148 | 0.0341 | <0.005 | 0.137 | 0.0527 | 0.19 |
| | MW7-ROX-011812-DUP | 1/18/2012 | | 38.10 | NE | <0.005 | <0.005 | | <0.005 | | 0.01 | <0.005 | 0.0024 | 0.0138 | 0.0138 | 0.156 | <0.005 | <0.005 | <0.001 | | 0.146 | 0.0332 | <0.005 | 0.134 | 0.051 | 0.184 |
| | MW7-ROX-050412 | 5/4/2012 | | 39.19 | NE | <0.5 | <0.5 | | <0.5 | | <0.5 | <0.5 | <0.1 | 0.0158 | <0.5 | 0.101 | <0.5 | <0.5 | <0.1 | | <0.5 | <0.5 | <0.5 | <0.1 | <0.1 | <0.1 |
| | MW7-ROX-080712 | 8/7/2012 | | 39.50 | NE | <0.05 | <0.05 | | <0.05 | | <0.05 | <0.05 | <0.01 | 0.0089 | 0.0102 J | 0.0629 | <0.05 | <0.05 | <0.01 | | 0.1 | 0.021 J | <0.05 | 0.12 | 0.0486 | 0.169 |
| | MW7-ROX-103012 | 10/30/2012 | | 41.23 | NE | <10 | <10 | | <10 | | <10 | <10 | <2 | <10 | <10 | <2 | <10 | <10 | <2 | | <10 | <10 | <10 | <2 | <2 | <2 |
| | MW7-ROX-103012-DUP | 10/30/2012 | | 41.23 | NE | <10 | <10 | | <10 | | <10 | <10 | <2 | <10 | <10 | <2 | <10 | <10 | <2 | | <10 | <10 | <10 | <2 | <2 | <2 |
| | MW7-ROX-011513 | 1/15/2013 | | 42.21 | NE | <20 | <20 | | <20 | | <20 | <20 | <4 | <20 | <20 | <4 | <20 | <20 | <4 | | <20 | <20 | <20 | <4 | <4 | <4 |
| | MW7-ROX-011513-DUP | 1/15/2013 | | 42.21 | NE | <20 | <20 | | <20 | | <20 | <20 | <4 | <20 | <20 | <4 | <20 | <20 | <4 | | <20 | <20 | <20 | <4 | <4 | <4 |
| | MW7-ROX-041013 | 4/10/2013 | | 42.70 | NE | <10 | <10 | | <10 | | <10 | <10 | <2 | <10 | <10 | <2 | <10 | <10 | <2 | | <10 | <10 | <10 | <2 | <2 | <2 |
| | MW7-ROX-041013-DUP | 4/10/2013 | | 42.70 | NE | <10 | <10 | | <10 | | <10 | <10 | <2 | <10 | <10 | <2 | <10 | <10 | <2 | | <10 | <10 | <10 | <2 | <2 | <2 |
| | MW7-ROX-071713 | 7/17/2013 | | 39.60 | NE | <0.005 | <0.005 | | <0.005 | | 0.0096 J | <0.005 | 0.0031 J | 0.0185 J | 0.0173 J | 0.289 J | <0.005 | <0.005 | <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 | <10 UJ | <10 | | <10 | | <10 | <10 | <2 UJ | <10 | <10 | <2 | <10 | <10 | <2 | | <10 | <10 | <10 UJ | <2 | <2 | <2 |
| | MW7-ROX-013014 | 1/30/2014 | | 42.94 | NE | <13 | <13 | | <13 | | <13 | <13 | <2.5 | <13 | <13 | <2.5 | <13 | <13 | <2.5 | | <13 | <13 | <13 | <2.5 | <2.5 | <2.5 |
| | MW7-ROX-041614 | 4/16/2014 | 42.92 - 52.92 | 43.79 | NE | <25 | <25 | | <25 | | <25 | <25 | <5 | <25 | <25 | <5 | <25 | <25 | <5 | | <25 | <25 | <25 | <5 | <5 | <5 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | VOCs | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Ethyl methacrylate | Hexachlorobutadiene | Hexane[6] | 2-Hexanone (Methyl N-Butyl Ketone) | Isopentane[6] | Isopropylbenzene (Cumene) | 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) | Methyl tert-Butyl Ether (MTBE) | Naphthalene[4] | n-Propylbenzene | Toluene | 1,2,3-Trichlorobenzene | 1,2,4-Trichlorobenzene | 1,1,2-Trichloroethane | 1,2,3-Trimethylbenzene[6] | 1,2,4-Trimethylbenzene | 1,3,5-Trimethylbenzene | Vinyl acetate | m,p-Xylenes | o-Xylenes | Xylenes (total) |
| | | | | | Screening Values (mg/L) | | 0.007 [3] | 0.42 [3] | 0.035 [3] | | 0.7 [1] | 0.56 [3] | 0.07 [1] | 0.14 [1] | 0.7 [3] | 1.0 [1] | 0.0056 [3] | 0.07 [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-08 | MW8-ROX-072411 | 7/24/2011 | 33.60 - 43.60 | 26.02 | NE | <25 | <25 | | <25 | | <25 | <25 | <5 | 0.0237 | <25 | <5 | <25 | <25 | <5 | | <25 | <25 | <25 UJ | <5 | <5 | <5 |
| | MW8-ROX-072411-DUP | 7/24/2011 | | 26.02 | NE | <25 | <25 | | <25 | | <25 | <25 | <5 | 0.023 | <25 | <5 | <25 | <25 | <5 | | <25 | <25 | <25 UJ | <5 | <5 | <5 |
| | MW-8-ROX-110211 | 11/2/2011 | | 27.02 | NE | <5 | <5 | | <5 | | <5 | <5 | 4.94 J | 0.0282 | <5 | <1 | <5 | <5 | <1 | | <5 | <5 | <5 | <1 | <1 | <1 |
| | MW8-ROX-011812 | 1/18/2012 | | 29.15 | NE | <0.005 | <0.005 | | <0.005 | | 0.0162 | <0.005 | 1.41 J | 0.0239 | 0.0377 | <2 | <0.005 | <0.005 | <0.001 | | 0.163 | 0.061 | <0.005 | 0.574 | 0.219 | 0.794 |
| | MW8-ROX-050412 | 5/4/2012 | | 30.21 | NE | <0.5 | <0.5 | | <0.5 | | <0.5 | <0.5 | 4.15 | 0.0186 | <0.5 | 1.55 | <0.5 | <0.5 | <0.1 | | <0.5 | <0.5 | <0.5 | 0.978 | 0.37 | 1.35 |
| | MW8-ROX-050412-DUP | 5/4/2012 | | 30.21 | NE | <0.5 | <0.5 | | <0.5 | | <0.5 | <0.5 | 4.07 | 0.0188 | <0.5 | 1.52 | <0.5 | <0.5 | <0.1 | | <0.5 | <0.5 | <0.5 | 0.939 | 0.381 | 1.32 |
| | MW8-ROX-080712 | 8/7/2012 | | 30.97 | NE | <0.1 | <0.1 | | <0.1 | | <0.1 | <0.1 | 0.878 | 0.0164 | 0.0191 J | 0.781 | <0.1 | <0.1 | <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 | <0.05 | <0.05 | | <0.05 | | <0.05 | <0.05 | 0.885 | 0.0164 | 0.0176 J | 0.729 | <0.05 | <0.05 | <0.01 | | 0.0921 | 0.0265 J | <0.05 | 0.598 | 0.235 | 0.833 |
| | MW8-ROX-103012 | 10/30/2012 | | 32.32 | NE | <5 | <5 | | <5 | | <5 | <5 | <1 | <5 | <5 | <1 | <5 | <5 | <1 | | <5 | <5 | <5 | <1 | <1 | <1 |
| | MW8-ROX-011513 | 1/15/2013 | | 33.30 | NE | <10 | <10 | | <10 | | <10 | <10 | <2 | <10 | <10 | 2.09 | <10 | <10 | <2 | | <10 | <10 | <10 | <2 | <2 | <2 |
| | MW8-ROX-041013 | 4/10/2013 | | 33.77 | NE | <25 | <25 | | <25 | | <25 | <25 | <5 | <25 | <25 | <5 | <25 | <25 | <5 | | <25 | <25 | <25 | <5 | <5 | <5 |
| | MW8-ROX-071713 | 7/17/2013 | | 30.43 | NE | <0.005 | <0.005 | | <0.005 | | 0.0173 | <0.005 | 0.197 J | 0.0335 | 0.0374 | 0.348 | <0.005 | <0.005 | <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 | <0.005 | <0.005 | | <0.005 | | 0.0174 | <0.005 | 0.187 J | 0.0347 | 0.0383 | 0.341 | <0.005 | <0.005 | <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 | <10 UJ | <10 | | <10 | | <10 | <10 | <2 UJ | <10 | <10 | <2 | <10 | <10 | <2 | | <10 | <10 | <10 UJ | <2 | <2 | <2 |
| | MW8-ROX-101613-DUP | 10/16/2013 | | 31.59 | NE | <10 UJ | <10 | | <10 | | <10 | <10 | <2 UJ | <10 | <10 | <2 | <10 | <10 | <2 | | <10 | <10 | <10 UJ | <2 | <2 | <2 |
| | MW8-ROX-013014 | 1/30/2014 | | 34.02 | NE | <13 | <13 | | <13 | | <13 | <13 | 1.92 J | <13 | <13 | <2.5 | <13 | <13 | <2.5 | | <13 | <13 | <13 | <2.5 | <2.5 | <2.5 |
| | MW8-ROX-013014-DUP | 1/30/2014 | | 34.02 | NE | <13 | <13 | | <13 | | <13 | <13 | 1.99 J | <13 | <13 | <2.5 | <13 | <13 | <2.5 | | <13 | <13 | <13 | <2.5 | <2.5 | <2.5 |
| | MW8-ROX-041614 | 4/16/2014 | 33.60 - 43.60 | 34.73 | NE | <10 | <10 | | <10 | | <10 | <10 | <2 | <10 | <10 | <2 | <10 | <10 | <2 | | <10 | <10 | <10 | <2 | <2 | <2 |
| | MW8-ROX-041614-DUP | 4/16/2014 | | 34.73 | NE | <10 | <10 | | <10 | | <10 | <10 | <2 | <10 | <10 | <2 | <10 | <10 | <2 | | <10 | <10 | <10 | <2 | <2 | <2 |
| MW-09 | MW9-ROX-072311 | 7/23/2011 | 46.45 - 56.45 | 38.06 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | 0.001 B | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.001 |
| | MW9-ROX-110111 | 11/1/2011 | | 37.78 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW9-ROX-011612 | 1/16/2012 | | 39.50 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | 0.000062 J | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW9-ROX-050312 | 5/3/2012 | | 41.03 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW9-ROX-072712 | 7/27/2012 | | 41.30 | NE | <0.005 | <0.005 | | <0.005 UJ | | <0.005 | <0.005 | <0.001 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.001 |
| | MW9-ROX-102912 | 10/29/2012 | | 43.17 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW9-ROX-011113 | 1/11/2013 | | 43.90 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW9-ROX-040913 | 4/9/2013 | | 44.67 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW9-ROX-070813 | 7/8/2013 | | 42.35 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW9-ROX-100313 | 10/3/2013 | | 42.27 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW9-ROX-011414 | 1/14/2014 | | 44.47 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW9-ROX-040714 | 4/7/2014 | 46.45 - 56.45 | 44.99 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| MW-10 | MW10-ROX-072311 | 7/23/2011 | 44.43 - 54.43 | 38.01 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | 0.00062 B | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.001 |
| | MW10-ROX-110111 | 11/1/2011 | | 37.72 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW10-ROX-011612 | 1/16/2012 | | 39.28 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | 0.000047 J | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW10-ROX-050112 | 5/1/2012 | | 40.86 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | 0.000052 J | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW10-ROX-072712 | 7/27/2012 | | 41.21 | NE | <0.005 | <0.005 | | <0.005 UJ | | <0.005 | <0.005 | <0.001 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <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 | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | 0.00058 J |
| | MW10-ROX-011013 | 1/10/2013 | | 44.10 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <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 | <0.02 | <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 | <0.01 | <0.005 | <0.005 | |
| | MW10-ROX-040913 | 4/9/2013 | | 44.60 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW10-ROX-070813 | 7/8/2013 | | 42.27 | NE | <0.005 | <0.005 | | <0.005 | 1.9 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW10-ROX-100313 | 10/3/2013 | | 42.38 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW10-ROX-011514 | 1/15/2014 | | 44.42 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW10-ROX-040714 | 4/7/2014 | 44.43 - 54.43 | 45.00 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | VOCs | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Ethyl methacrylate | Hexachlorobutadiene | Hexane[6] | 2-Hexanone (Methyl N-Butyl Ketone) | Isopentane[6] | Isopropylbenzene (Cumene) | 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) | Methyl tert-Butyl Ether (MTBE) | Naphthalene[4] | n-Propylbenzene | Toluene | 1,2,3-Trichlorobenzene | 1,2,4-Trichlorobenzene | 1,1,2-Trichloroethane | 1,2,3-Trimethylbenzene[6] | 1,2,4-Trimethylbenzene | 1,3,5-Trimethylbenzene | Vinyl acetate | m,p-Xylenes | o-Xylenes | Xylenes (total) |
| | | | | Screening Values (mg/L) | | | 0.007 [3] | 0.42 [3] | 0.035 [3] | | 0.7 [1] | 0.56 [3] | 0.07 [1] | 0.14 [1] | 0.7 [3] | 1.0 [1] | 0.0056 [3] | 0.07 [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-11 | MW11-ROX-072411 | 7/24/2011 | 41.66 - 51.66 | 34.3 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | 0.00027 B | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.001 |
| | MW-11-ROX-110211 | 11/2/2011 | | 35.44 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.003 J | <0.00011 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW11-ROX-011712 | 1/17/2012 | | 37.44 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW11-ROX-043012 | 4/30/2012 | | 38.66 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW11-ROX-072712 | 7/27/2012 | | 38.90 | NE | <0.005 | <0.005 | | <0.005 UJ | | <0.005 | <0.005 | <0.001 | <0.00012 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.001 |
| | MW11-ROX-102512 | 10/25/2012 | | 40.59 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW11-ROX-011013 | 1/10/2013 | | 41.43 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW11-ROX-040813 | 4/8/2013 | | 42.02 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 UJ | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW11-ROX-070813 | 7/8/2013 | | 39.24 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW11-ROX-100713 | 10/7/2013 | | 39.95 | NE | <0.005 | <0.005 | | <0.005 UJ | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW11-ROX-011514 | 1/15/2014 | | 42.16 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW11-ROX-040714 | 4/7/2014 | 41.66 - 51.66 | 42.70 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| MW-12 | MW12-ROX-072411 | 7/24/2011 | 41.92 - 51.92 | 35.55 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | 0.00098 B | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW-12-ROX-110211 | 11/2/2011 | | 35.70 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.000095 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW-12-ROX-110211-DUP | 11/2/2011 | | 35.70 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.000095 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW12-ROX-011712 | 1/17/2012 | | 37.70 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.00011 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW12-ROX-011712-DUP | 1/17/2012 | | 37.70 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.00011 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW12-ROX-043012 | 4/30/2012 | | 38.98 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW12-ROX-072712 | 7/27/2012 | | 39.22 | NE | <0.005 | <0.005 | | <0.005 UJ | | <0.005 | <0.005 | <0.001 | <0.00011 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.001 |
| | MW12-ROX-102512 | 10/25/2012 | | 40.95 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW12-ROX-011013 | 1/10/2013 | | 41.83 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | 0.00089 J | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW12-ROX-040813 | 4/8/2013 | | 42.46 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 UJ | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW12-ROX-070913 | 7/9/2013 | | 39.28 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.001 |
| | MW12-ROX-100713 | 10/7/2013 | | 40.22 | NE | <0.005 | <0.005 | | <0.005 UJ | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW12-ROX-011514 | 1/15/2014 | | 42.54 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW12-ROX-040814 | 4/8/2014 | 41.92 - 51.92 | 43.15 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| MW-13 | MW13-ROX-080311 | 8/3/2011 | 25.57 - 35.57 | 21.67 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.004 | <0.000045 U | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW13-ROX-110311 | 11/3/2011 | | 22.85 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0156 J | 0.00017 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW13-ROX-012012 | 1/20/2012 | | 24.77 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0066 J | 0.00021 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW13-ROX-050712 | 5/7/2012 | | 25.79 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0083 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW13-ROX-080812 | 8/8/2012 | | 26.67 | NE | <0.005 UJ | <0.005 UJ | | <0.005 UJ | | <0.005 UJ | <0.005 UJ | 0.0133 J | <0.0013 U | <0.005 UJ | <0.001 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 | <0.001 UJ |
| | MW13-ROX-110812 | 11/8/2012 | | 25.30 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0093 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW13-ROX-012313 | 1/23/2013 | | 29.26 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0082 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.001 |
| | MW13-ROX-041213 | 4/12/2013 | | 29.44 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0093 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW13-ROX-071213 | 7/12/2013 | | 25.67 | NE | <0.005 | <0.005 UJ | | <0.005 | | <0.005 | <0.005 | 0.0094 | <0.005 | 0.00064 J | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.001 |
| | MW13-ROX-100913 | 10/9/2013 | | 26.94 | NE | <0.005 | <0.005 UJ | | <0.005 | | <0.005 | <0.005 | 0.0072 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW13-ROX-012914 | 1/29/2014 | | 29.63 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.008 J | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW13-ROX-041114 | 4/11/2014 | 25.57 - 35.57 | 30.15 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0062 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| MW-14 | MW14-ROX-110911 | 11/9/2011 | 33.42 - 43.42 | | | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.00011 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW14-ROX-051012 | 5/10/2012 | | NM | NE | <0.005 | <0.005 | | <0.005 | | 0.0104 | <0.005 | <0.001 | 0.00099 | 0.0078 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | 0.0016 | 0.00041 J | 0.002 |
| | MW14-ROX-080312 | 8/3/2012 | | NM | NE | <0.005 | <0.005 | | <0.005 | | 0.0173 | <0.005 | <0.001 | 0.0013 | 0.0137 | 0.00093 J | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | 0.0033 | 0.00061 J | 0.0039 |
| | MW14-ROX-103112 | 10/31/2012 | | 32.02 | NE | <0.005 | <0.005 | | <0.005 | | 0.0161 | <0.005 | <0.001 | <0.005 | 0.0121 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | 0.0024 | <0.001 | 0.0024 |
| | MW14-ROX-011813 | 1/18/2013 | | 33.05 | NE | <0.005 | <0.005 | | <0.005 | | 0.021 | <0.005 | <0.001 | <0.005 | 0.0162 | 0.00097 J | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | 0.0026 | <0.001 | 0.003 |
| | MW14-ROX-041113 | 4/11/2013 | | 33.31 | NE | <0.005 | <0.005 | | <0.005 | | 0.0346 | <0.005 | <0.001 | <0.005 | 0.0206 | 0.0014 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | 0.0038 | <0.001 | 0.0043 |
| | MW14-ROX-071213 | 7/12/2013 | | 30.36 | NE | <0.005 | <0.005 UJ | | <0.005 | | 0.0168 | <0.005 | <0.001 | <0.005 | 0.0109 | 0.00059 J | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | 0.0026 | <0.001 | 0.0029 |
| | MW14-ROX-101013 | 10/10/2013 | | 30.80 | NE | <0.005 | <0.005 | | <0.005 | | 0.0011 J | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <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 | <0.005 | <0.005 | | <0.005 | | 0.0036 J | <0.005 | <0.001 | <0.005 | 0.002 J | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW14-ROX-041114 | 4/11/2014 | 33.42 - 43.42 | 34.30 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <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 | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.001 |
| | MW16-ROX-040813 | 4/8/2013 | | 43.39 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 UJ | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW16-ROX-070813 | 7/8/2013 | | 40.62 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW16-ROX-100813 | 10/8/2013 | | 41.62 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW16-ROX-011514 | 1/15/2014 | | 43.76 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW16-ROX-040914 | 4/9/2014 | 37.06 - 47.06 | 44.63 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | VOCs | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Ethyl methacrylate | Hexachlorobutadiene | Hexane[6] | 2-Hexanone (Methyl N-Butyl Ketone) | Isopentane[6] | Isopropylbenzene (Cumene) | 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) | Methyl tert-Butyl Ether (MTBE) | Naphthalene[4] | n-Propylbenzene | Toluene | 1,2,3-Trichlorobenzene | 1,2,4-Trichlorobenzene | 1,1,2-Trichloroethane | 1,2,3-Trimethylbenzene[6] | 1,2,4-Trimethylbenzene | 1,3,5-Trimethylbenzene | Vinyl acetate | m,p-Xylenes | o-Xylenes | Xylenes (total) |
| | | | | | Screening Values (mg/L) | | 0.007 [3] | 0.42 [3] | 0.035 [3] | | 0.7 [1] | 0.56 [3] | 0.07 [1] | 0.14 [1] | 0.7 [3] | 1.0 [1] | 0.0056 [3] | 0.07 [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-22 | MW22-ROX-012313 | 1/23/2013 | 37.88 - 47.88 | 41.80 | NE | <0.25 | <0.25 | | <0.25 | | 0.126 J | <0.25 | <0.05 | 0.396 | 0.22 J | 10.5 | <0.25 | <0.25 | <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 | <0.25 | <0.25 | | <0.25 | | 0.124 J | <0.25 | <0.05 | 0.377 | 0.234 J | 9.06 | <0.25 | <0.25 | <0.05 | | 1.26 | 0.291 | <0.25 UJ | 6.96 | 3.52 | 10.5 |
| | MW22-ROX-040513 | 4/5/2013 | | 42.23 | NE | <0.005 | <0.005 | | <0.005 | | 0.159 J | 0.0124 J | <0.001 | 0.286 J | 0.29 J | 6.14 | <0.005 | <0.005 | <0.001 | | 0.931 | 0.379 J | <0.005 | 5.15 | 2.64 | 7.79 |
| | MW22-ROX-071113 | 7/11/2013 | | 39.35 | NE | <0.005 | <0.005 | | <0.005 UJ | | 0.131 | 0.0102 | <0.001 | 0.345 | 0.242 | 3.92 | <0.005 | <0.005 | <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 | <0.005 | <0.005 | | <0.005 UJ | | 0.133 | 0.0103 | <0.001 | 0.362 | 0.245 | 3.57 | <0.005 | <0.005 | <0.001 | | 0.754 | 0.311 | <0.005 UJ | 3.83 | 2.05 | 5.88 |
| | MW22-ROX-100913 | 10/9/2013 | | 40.39 | NE | <0.005 | <0.005 UJ | | <0.005 | | 0.137 | 0.0101 | <0.001 | 0.47 | 0.244 | 6.02 | <0.005 | <0.005 | <0.001 | | 1.37 | 0.357 | <0.005 | 7.46 | 3.48 | 10.9 |
| | MW22-ROX-100913-DUP | 10/9/2013 | | 40.39 | NE | <0.005 | <0.005 UJ | | <0.005 | | 0.136 | 0.0084 | <0.001 | 0.445 | 0.243 | 6.32 | <0.005 | <0.005 | <0.001 | | 1.43 | 0.343 | <0.005 | 7.75 | 3.65 | 11.4 |
| | MW22-ROX-012014 | 1/20/2014 | | 42.49 | NE | <0.005 | <0.005 | | 0.0082 | | 0.169 | 0.007 | <0.001 | 0.287 | 0.287 | 5.33 | <0.005 | <0.005 | <0.001 | | 1.3 | 0.298 | <0.005 | 5.65 | 2.65 | 8.29 |
| | MW22-ROX-012014-DUP | 1/20/2014 | | 42.49 | NE | <0.005 | <0.005 | | 0.0088 | | 0.169 | 0.007 | <0.001 | 0.262 | 0.286 | 5.71 | <0.005 | <0.005 | <0.001 | | 1.37 | 0.398 | <0.005 | 6.01 | 2.81 | 8.83 |
| | MW22-ROX-041014 | 4/10/2014 | 37.88 - 47.88 | 43.15 | NE | <0.005 | <0.005 | | <0.005 | | 0.157 | <0.005 | <0.001 | 0.334 | 0.254 | 5.95 | <0.005 | <0.005 | <0.001 | | 1.1 | 0.384 | <0.005 | 6.85 | 3.38 | 10.2 |
| | MW22-ROX-041014-DUP | 4/10/2014 | | 43.15 | NE | <0.005 | <0.005 | | <0.005 | | 0.138 | 0.0082 | <0.001 | 0.28 | 0.235 | 5.52 | <0.005 | <0.005 | <0.001 | | 1 | 0.35 | <0.005 | 6.23 | 3.12 | 9.35 |
| MW-24 | MW24-ROX-040513 | 4/5/2013 | 38.89 - 48.89 | 43.39 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | 0.0014 | <0.005 | <0.005 | <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 | <0.005 | <0.005 | | <0.005 UJ | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.001 |
| | MW24-ROX-100913 | 10/9/2013 | | 41.27 | NE | <0.005 | <0.005 UJ | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW24-ROX-011514 | 1/15/2014 | | 43.47 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | MW24-ROX-040914 | 4/9/2014 | 38.89 - 48.89 | 44.13 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| P-54 | P54-ROX-072411 | 7/24/2011 | 38.00 - 63.00 | 35.38 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | 0.000066 JB | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P54-ROX-110311 | 11/3/2011 | | 35.49 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P54-ROX-011712 | 1/17/2012 | | 37.17 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.000089 U | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P54-ROX-050412 | 5/4/2012 | | 38.77 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P54-ROX-080212 | 8/2/2012 | | 38.95 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.00011 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P54-ROX-103012 | 10/30/2012 | | 40.70 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P54-ROX-011113 | 1/11/2013 | | 41.56 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P54-ROX-041013 | 4/10/2013 | | 41.80 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P54-ROX-050313 | 5/3/2013 | | 41.80 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P54-ROX-071113 | 7/11/2013 | | 39.07 | NE | <0.005 | <0.005 | | <0.005 UJ | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.001 |
| | P54-ROX-100813 | 10/8/2013 | | 39.94 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P54-ROX-011514 | 1/15/2014 | | 42.20 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P54-ROX-040914 | 4/9/2014 | 38.00 - 63.00 | 42.80 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| P-55 | P55-ROX-103111 | 10/31/2011 | 39.82 - 64.82 | 39.15 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0012 | 0.0015 | <0.005 | 0.029 | <0.005 | <0.005 | <0.001 | | 0.0067 | 0.0056 | <0.005 | 0.0466 | 0.0163 | 0.0629 |
| | P55-ROX-011912 | 1/19/2012 | | 41.09 | NE | <0.005 | <0.005 | | <0.005 | | 0.0105 J | <0.005 | <0.001 | 0.0197 | 0.0173 | 0.0337 | <0.005 | <0.005 | <0.001 | | 0.017 | 0.009 | <0.005 | 0.205 | 0.0663 | 0.271 |
| | P55-ROX-011912-D | 1/19/2012 | | 41.09 | NE | <0.005 | <0.005 | | <0.005 | | 0.0105 J | <0.005 | <0.001 | 0.0169 | 0.0176 | 0.0359 | <0.005 | <0.005 | <0.001 | | 0.0179 | 0.0097 | <0.005 | 0.21 | 0.0649 | 0.275 |
| | P55-ROX-050912 | 5/9/2012 | | 42.44 | NE | <0.005 | <0.005 | | <0.005 | | 0.0392 | <0.005 | <0.001 | 0.0271 | 0.0699 | 0.227 | <0.005 | <0.005 | <0.001 | | 0.158 | 0.0368 | <0.005 | 0.885 | 0.112 | 0.97 |
| | P55-ROX-012113 | 1/21/2013 | 40.43 - 50.43 | 43.60 | NE | <0.05 | <0.01 | 0.276 | <0.25 | | 0.0678 | <0.25 | <0.02 | 0.079 J | 0.14 | 0.189 | <0.05 | <0.01 | <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 | <0.005 | <0.005 | | <0.005 | | 0.0937 | <0.005 | 0.002 | 0.12 | 0.206 | 0.262 | <0.005 | <0.005 | <0.001 | | 0.046 | 0.0312 | <0.005 | 0.356 | 0.382 | 0.738 |
| | P55-ROX-041513 | 4/15/2013 | | 43.63 | NE | <0.01 | <0.01 | | <0.01 | | 0.068 | <0.01 | <0.002 | 0.0974 J | 0.148 | 0.143 | <0.01 | <0.01 | <0.002 | | 0.0241 | 0.0229 | <0.01 | 0.235 | 0.362 | 0.597 |
| | P55-ROX-071613 | 7/16/2013 | | 40.06 | NE | <0.005 | <0.005 UJ | | <0.005 | 0.72 | 0.0884 | <0.005 | <0.001 | 0.0841 | 0.175 | 0.343 | <0.005 | <0.005 | <0.001 | | 0.073 | 0.0559 | <0.005 UJ | 0.535 | 0.558 | 1.11 |
| | P55-ROX-101013 | 10/10/2013 | | 41.67 | NE | <0.005 | <0.005 | | <0.005 | | 0.0851 | <0.005 | 0.001 | 0.121 | 0.167 | 0.601 | <0.005 | <0.005 | <0.001 | | 0.151 | 0.062 | <0.005 | 0.739 | 0.639 | 1.38 |
| P-56 | P56-ROX-102711 | 10/27/2011 | 40.82 - 65.82 | 39.42 | NE | <0.005 | <0.005 | | <0.005 | | 0.0512 | <0.005 | <0.001 | 0.067 | 0.0463 | 0.0422 | <0.005 | <0.005 | <0.001 | | 0.0962 | 0.0226 | <0.005 | 0.476 | 0.0332 | 0.509 |
| | P56-ROX-011912 | 1/19/2012 | | 41.81 | NE | <0.005 | <0.005 | | <0.005 | | 0.0787 J | <0.005 | <0.001 | 0.0596 | 0.0697 | 0.023 | <0.005 | <0.005 | <0.001 | | 0.0229 | 0.0077 | <0.005 | 0.202 | 0.0161 | 0.218 |
| | P56-ROX-050812 | 5/8/2012 | | 43.09 | NE | <0.005 | <0.005 | | <0.005 | | 0.0876 | <0.005 | <0.001 | 0.0667 | 0.111 | 0.197 | <0.005 | <0.005 | <0.001 | | 0.312 | 0.0708 | <0.005 | 1.37 | 0.197 | 1.53 |
| | P56-ROX-080612 | 8/6/2012 | | 43.60 | NE | <0.025 | <0.025 | | <0.025 UJ | | 0.0442 | <0.025 | <0.005 | 0.0197 | 0.0439 | 0.0109 | <0.025 UJ | <0.025 UJ | <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 | <0.005 | <0.005 | | <0.005 | | 0.0752 | <0.005 | <0.001 | 0.167 | 0.105 | 0.187 | <0.005 | <0.005 | <0.001 | | 0.387 | 0.0901 | <0.005 | 1.62 | 0.144 | 1.73 |
| | P56-ROX-011713 | 1/17/2013 | | 45.65 | NE | <0.025 | <0.025 | | <0.025 | | 0.0398 | <0.025 | <0.005 | 0.0322 | 0.0456 | 0.0119 | <0.025 | <0.025 | <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 | <0.01 | <0.01 | | <0.01 | | 0.0581 | <0.01 | <0.002 | 0.0964 J | 0.0805 | 0.0799 | <0.01 | <0.01 | <0.002 | | 0.27 | 0.0486 | <0.01 | 1 | 0.0243 | 1.03 |
| | P56-ROX-071513 | 7/15/2013 | | 43.25 | NE | <0.005 | <0.005 | | <0.005 | | 0.0968 | <0.005 | <0.001 | 0.316 | 0.145 | 0.311 | <0.005 | <0.005 | <0.001 | | 0.551 | 0.134 | <0.005 | 2.67 | 0.21 | 2.85 |
| | P56-ROX-101013 | 10/10/2013 | | 44.48 | NE | <0.005 | <0.005 | | <0.005 | | 0.0822 | <0.005 | 0.00058 J | 0.156 | 0.105 | 0.157 | <0.005 | <0.005 | <0.001 | | 0.33 | 0.0714 | <0.005 | 1.7 | 0.0617 | 1.76 |
| | P56-ROX-012214 | 1/22/2014 | | 46.35 | NE | <0.005 | <0.005 | | <0.005 | | 0.0399 | <0.005 | <0.001 | 0.0566 | 0.0426 | 0.0263 | <0.005 | <0.005 | <0.001 | | 0.074 | 0.0172 | <0.005 | 0.224 | 0.0093 | 0.233 |
| | P56-ROX-041414 | 4/14/2014 | 40.82 - 65.82 | 47.32 | NE | <0.005 | <0.005 | | <0.005 | | 0.0781 | <0.005 | <0.001 | 0.0836 | 0.0951 | 0.0669 | <0.005 | <0.005 | <0.001 | | 0.205 | 0.0472 | <0.005 | 0.742 | 0.0156 | 0.758 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | VOCs | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Ethyl methacrylate | Hexachlorobutadiene | Hexane[6] | 2-Hexanone (Methyl N-Butyl Ketone) | Isopentane[6] | Isopropylbenzene (Cumene) | 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) | Methyl tert-Butyl Ether (MTBE) | Naphthalene[4] | n-Propylbenzene | Toluene | 1,2,3-Trichlorobenzene | 1,2,4-Trichlorobenzene | 1,1,2-Trichloroethane | 1,2,3-Trimethylbenzene[6] | 1,2,4-Trimethylbenzene | 1,3,5-Trimethylbenzene | Vinyl acetate | m,p-Xylenes | o-Xylenes | Xylenes (total) |
| | | | | | Screening Values (mg/L) | | 0.007 [3] | 0.42 [3] | 0.035 [3] | | 0.7 [1] | 0.56 [3] | 0.07 [1] | 0.14 [1] | 0.7 [3] | 1.0 [1] | 0.0056 [3] | 0.07 [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-57 | P57-ROX-110811 | 11/8/2011 | 40.46 - 65.46 | 39.20 | NE | <0.5 | <0.5 | | <0.5 | | <0.5 | <0.5 | 0.221 | 0.152 | <0.5 | <0.1 | <0.5 | <0.5 | <0.1 | | 0.615 | <0.5 | <0.5 | 1.02 | <0.1 | 1.02 |
| | P57-ROX-021312 | 2/13/2012 | | 42.13 | NE | <2.5 | <2.5 | | <2.5 | | <2.5 | <2.5 | <0.5 | 0.271 J | <2.5 | <0.5 | <2.5 | <2.5 | <0.5 | | <2.5 | <2.5 | <2.5 | 0.502 | <0.5 | 0.502 |
| | P57-ROX-050712 | 5/7/2012 | | 42.92 | NE | <0.5 | <0.5 | | <0.5 | | <0.5 | <0.5 | 0.453 | 0.0894 | <0.5 | <0.1 | <0.5 | <0.5 | <0.1 | | 0.632 | 0.159 J | <0.5 | 0.928 | 0.0563 J | 0.984 |
| | P57-ROX-080612 | 8/6/2012 | | 43.53 | NE | <0.25 | <0.25 | | <0.25 UJ | | <0.25 | <0.25 | 0.238 | 0.119 | <0.25 | 0.0577 | <0.25 | <0.25 | <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 | <0.005 | <0.005 | | <0.005 UJ | | 0.0432 | <0.005 | 0.212 | 0.115 | 0.0519 | 0.0558 | <0.005 | <0.005 | <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 | <2.5 | <2.5 | | <2.5 | | <2.5 | <2.5 | <0.5 | 1.53 J | <2.5 | <0.5 | <2.5 | <2.5 | <0.5 | | 0.577 J | <2.5 | <2.5 | 1.03 | <0.5 | 1.03 |
| | P57-ROX-012913 | 1/29/2013 | | 45.92 | NE | <2.5 | <2.5 | | <2.5 | | <2.5 | <2.5 | <0.5 | <2.5 | 0.331 J | <0.5 | <2.5 | <2.5 | <0.5 | | <2.5 | <2.5 | <2.5 | <0.5 | <0.5 | <0.5 |
| | P57-ROX-041113 | 4/11/2013 | | 46.29 | NE | <2.5 | <2.5 | | <2.5 | | <2.5 | <2.5 | <0.5 | <2.5 | <2.5 | <0.5 | <2.5 | <2.5 | <0.5 | | 0.494 J | <2.5 | <2.5 | <0.5 | <0.5 | <0.5 |
| | P57-ROX-071613 | 7/16/2013 | | 43.38 | NE | <0.005 | <0.005 UJ | | <0.005 | | 0.0698 J | <0.005 | 0.112 J | 0.203 J | 0.0802 J | 0.202 J | <0.005 | <0.005 | <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 | <0.005 | <0.005 | | <0.005 | | 0.0539 | <0.005 | 0.107 | 0.206 | 0.0586 | 0.0421 | <0.005 | <0.005 | <0.001 | | 0.763 J | 0.12 | <0.005 | 0.468 | 0.0206 | 0.489 |
| | P57-ROX-020314 | 2/3/2014 | | 46.57 | NE | <5 | <5 | | <5 | | <5 | <5 | <1 | <5 | <5 | <1 | <5 | <5 | <1 | | <5 | <5 | <5 | <1 | <1 | <1 |
| | P57-ROX-041514 | 4/15/2014 | 40.46 - 65.46 | 46.70 | NE | <0.005 | <0.005 | | 0.0062 | | 0.0492 | <0.005 | 0.0563 | 0.272 | 0.0585 | 0.0248 | 0.0015 J | <0.005 | <0.001 | | 0.503 E J | 0.114 | <0.005 | 0.296 | 0.0143 | 0.311 |
| P-58 | P58-ROX-102811 | 10/28/2011 | 40.21 - 65.21 | 37.31 | NE | <0.005 | <0.005 | | <0.005 | | 0.0734 | <0.005 | <0.001 | 0.204 | 0.0862 | 0.13 | <0.005 | <0.005 | <0.001 | | <25 | 0.104 | <0.005 | 0.575 | 0.101 | 0.677 |
| | P58-ROX-011912 | 1/19/2012 | | 39.73 | NE | <0.005 | <0.005 | | 0.0097 | | 0.108 J | <0.005 | 0.0082 | 0.212 | 0.129 J | 0.155 J | <0.005 | <0.005 | <0.001 | | | 0.14 J | 0.0408 J | 0.679 | 0.108 | 0.787 |
| | P58-ROX-011912-D | 1/19/2012 | | 39.73 | NE | <0.005 | <0.005 | | <0.005 | | 0.0832 J | <0.005 | 0.0101 J | 0.191 J | 0.0993 J | 0.119 J | <0.005 | <0.005 | <0.001 | | <5 | 0.11 | <0.005 UJ | <1 | <1 | <1 |
| | P58-ROX-050712 | 5/7/2012 | | 40.90 | NE | <0.5 | <0.5 | | <0.5 | | <0.5 | <0.5 | <0.1 | 0.112 J | 0.106 J | 0.137 | <0.5 | <0.5 | <0.1 | | 0.776 | 0.108 J | <0.5 | 0.666 | 0.0982 J | 0.764 |
| | P58-ROX-050712-DUP | 5/7/2012 | | 40.90 | NE | <0.5 | <0.5 | | <0.5 | | <0.5 | <0.5 | <0.1 | 0.0697 J | 0.108 J | 0.145 | <0.5 | <0.5 | <0.1 | | 0.757 | 0.109 J | <0.5 | 0.636 | 0.0968 J | 0.733 |
| | P58-ROX-080612 | 8/6/2012 | | 41.63 | NE | <0.1 | <0.1 | | <0.1 UJ | | 0.0649 J | <0.1 | <0.02 | 0.142 | 0.0909 J | 0.117 | <0.1 | <0.1 | <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 | <0.05 | <0.05 | | <0.05 | | 0.0718 | <0.05 | <0.01 | 0.15 | 0.0996 | 0.128 | <0.05 | <0.05 | <0.01 | | 0.737 | 0.102 | <0.05 | 0.656 | 0.104 | 0.759 |
| | P58-ROX-110612 | 11/6/2012 | | 43.09 | NE | <0.5 | <0.5 | | <0.5 | | <0.5 | <0.5 | <0.1 | <0.5 | <0.5 | 0.124 | <0.5 | <0.5 | <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 | <5 | <5 | | <5 | | <5 | <5 | <1 | <5 | <5 | <1 | <5 | <5 | <1 | | <5 | <5 | <5 | <1 | <1 | 0.728 J |
| | P58-ROX-041113 | 4/11/2013 | | 44.40 | NE | <10 | <10 | | <10 | | <10 | <10 | <2 | <10 | <10 | <2 | <10 | <10 | <2 | | 0.926 J | <10 | <10 | <2 | <2 | <2 |
| | P58-ROX-071613 | 7/16/2013 | | 41.49 | NE | <0.005 | <0.005 UJ | | <0.005 | | 0.101 | <0.005 | <0.001 | 0.234 | 0.131 | 0.147 | <0.005 | <0.005 | <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 | <0.005 | <0.005 | | <0.005 | | 0.0999 | 0.0055 | 0.0015 | 0.234 | 0.135 | 0.2 | <0.005 | <0.005 | <0.001 | | 1.17 J | 0.131 | <0.005 | 0.74 | 0.112 | 0.852 |
| | P58-ROX-020314 | 2/3/2014 | | 44.66 | NE | <5 | <5 | | <5 | | <5 | <5 | <1 | <5 | <5 | <1 | <5 | <5 | <1 | | <5 | <5 | <5 | <1 | <1 | <1 |
| | P58-ROX-041514 | 4/15/2014 | 40.21 - 65.21 | 45.66 | NE | <0.005 | <0.005 | | <0.005 | | 0.0777 J | <0.005 | <0.001 | 0.277 J | 0.104 J | 0.127 J | <0.005 | <0.005 | <0.001 | | 0.53 E J | 0.0992 J | <0.005 | 0.552 J | 0.0908 J | 0.643 J |
| P-59 | P59-ROX-102711 | 10/27/2011 | 47.91 - 72.91 | 41.06 | NE | <0.25 | <0.25 | | <0.25 | | <0.25 | <0.25 | <0.05 | 0.0793 | <0.25 | 0.321 | <0.25 | <0.25 | <0.05 | | 0.477 | <0.25 | <0.25 | 3.11 | 0.312 | 3.42 |
| | P59-ROX-011912 | 1/19/2012 | | 42.88 | NE | <0.005 | <0.005 | | <0.005 | | 0.0713 | <0.005 | <0.001 | 0.18 | 0.128 | 0.896 | <0.005 | <0.005 | <0.001 | | 0.483 J | 0.198 | <0.005 | 3.03 | 0.587 | 3.62 |
| | P59-ROX-011912-DUP | 1/19/2012 | | 42.88 | NE | <0.005 | <0.005 | | <0.005 | | 0.0733 | <0.005 | <0.001 | 0.183 | 0.133 | 0.931 | <0.005 | <0.005 | <0.001 | | 0.536 | 0.203 | <0.005 | 3.21 | 0.587 | 3.8 |
| | P59-ROX-050912 | 5/9/2012 | | 44.11 | NE | <0.25 | <0.25 | | <0.25 | | 0.0585 J | <0.25 | <0.05 | 0.0925 | 0.123 J | 2.35 | <0.25 | <0.25 | <0.05 | | 0.67 | 0.171 J | <0.25 | 4.56 | 1.08 | 5.64 |
| | P59-ROX-080212 | 8/2/2012 | | 44.07 | NE | <0.1 | <0.1 | | <0.1 | | 0.0452 J | <0.1 | <0.02 | 0.0886 | 0.0974 J | 0.506 | <0.1 | <0.1 | <0.02 | | 0.563 | 0.158 | <0.1 | 4.35 | 0.376 | 4.73 |
| | P59-ROX-110212 | 11/2/2012 | | 45.98 | NE | <0.5 | <0.5 | | <0.5 | | <0.5 | <0.5 | <0.1 | <0.5 | 0.105 J | 1.09 | <0.5 | <0.5 | <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 | <0.5 | <0.5 | | <0.5 | | <0.5 | <0.5 | <0.1 | <0.5 | 0.111 J | 1.1 | <0.5 | <0.5 | <0.1 | | 0.592 | 0.167 J | <0.5 | 4.68 | 0.721 | 5.4 |
| | P59-ROX-013013 | 1/30/2013 | | 46.60 | NE | <0.25 | <0.25 | | <0.25 | | 0.0455 J | <0.25 UJ | <0.05 UJ | 0.376 | 0.085 J | 0.296 | <0.25 | <0.25 | <0.05 | | 0.563 | 0.0491 J | <0.25 | 4.19 | 0.264 | 4.45 |
| | P59-ROX-041213 | 4/12/2013 | | 46.95 | NE | <0.25 | <0.25 | | <0.25 | | 0.062 J | <0.25 | <0.05 | 0.664 | 0.136 J | 0.523 | <0.25 | <0.25 | <0.05 | | 0.946 | <0.25 | <0.25 | 6.52 | 0.646 | 7.16 |
| | P59-ROX-041213-DUP | 4/12/2013 | | 46.95 | NE | <0.25 | <0.25 | | <0.25 | | 0.0543 J | <0.25 | <0.05 | 0.547 | 0.117 J | 0.463 | <0.25 | <0.25 | <0.05 | | 0.843 | <0.25 | <0.25 | 5.89 | 0.591 | 6.48 |
| | P59-ROX-071613 | 7/16/2013 | | 44.13 | NE | <0.005 | <0.005 UJ | | <0.005 | | 0.074 J | <0.005 | <0.001 | 0.215 J | 0.149 J | 1.03 | <0.005 | <0.005 | <0.001 | | 0.784 | 0.219 | <0.005 UJ | 5.76 | 0.431 | 6.19 |
| | P59-ROX-101013 | 10/10/2013 | | 45.50 | NE | <0.005 | <0.005 | | <0.005 | | 0.086 | <0.005 | 0.0012 | 0.285 | 0.176 | 2.89 | <0.005 | <0.005 | <0.001 | | 1.14 | 0.273 | <0.005 | 7.47 | 1.28 | 8.75 |
| | P59-ROX-020314 | 2/3/2014 | | 47.35 | NE | <0.1 | <0.1 | | <0.1 | | 0.0409 J | <0.1 | <0.02 | 0.0321 J | 0.0824 J | 0.66 | <0.1 | <0.1 | <0.02 | | 0.621 | 0.193 | <0.1 | 3.79 | 0.438 | 4.23 |
| | P59-ROX-041514 | 4/15/2014 | 47.91 - 72.91 | 48.60 | NE | <0.005 | <0.005 | | 0.054 | | 0.0495 | <0.005 | <0.001 | 0.196 | 0.0798 | 0.746 | 0.0027 J | <0.005 | <0.001 | | 0.385 | 0.214 | <0.005 | 4.83 | 0.902 | 5.73 |
| P-66 | P66-ROX-110111 | 11/1/2011 | 34.72 - 59.72 | 28.92 | NE | <0.005 | <0.005 | | <0.005 | | 0.158 | <0.005 | 0.0845 J | 0.0091 | 0.188 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P66-ROX-051012 | 5/10/2012 | | 32.48 | NE | <0.005 | <0.005 | | <0.005 | | 0.123 | <0.005 | 0.0771 | <0.0001 | 0.152 | 0.0021 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | 0.0012 | 0.0012 | 0.0024 |
| | P66-ROX-080312 | 8/3/2012 | | 30.51 | NE | <0.005 | <0.005 | | <0.005 | | 0.0874 | <0.005 | 0.103 | 0.0013 | 0.112 | 0.0013 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | 0.0011 | 0.0011 | 0.0022 |
| | P66-ROX-103112 | 10/31/2012 | | 34.75 | NE | <0.005 | <0.005 | | <0.005 | | 0.122 | <0.005 | 0.0733 | <0.005 | 0.156 | 0.0014 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P66-ROX-011813 | 1/18/2013 | | 35.70 | NE | <0.005 | <0.005 | | <0.005 | | 0.146 | <0.005 | 0.104 | <0.005 | 0.193 | 0.0015 | <0.005 | <0.005 | <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 | <0.005 | <0.005 | | <0.005 | | 0.287 | <0.005 | 0.086 | <0.005 | 0.384 | 0.0012 | <0.005 | <0.005 | <0.001 | | 0.0041 J | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P66-ROX-071213 | 7/12/2013 | | 33.20 | NE | <0.005 | <0.005 UJ | | <0.005 | | 0.191 | <0.005 | <0.001 | <0.005 | 0.229 | 0.0018 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | 0.001 | 0.0015 |
| | P66-ROX-101013 | 10/10/2013 | | 33.66 | NE | <0.005 | <0.005 | | <0.005 | | 0.151 | <0.005 | 0.085 | 0.0104 | 0.204 | 0.0013 | <0.005 | <0.005 | <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 | <0.005 | <0.005 | | <0.005 | | 0.0958 | <0.005 | 0.0528 | 0.0057 | 0.0658 | 0.00086 J | <0.005 | <0.005 | 0.0015 | | <0.005 | <0.005 | <0.005 | <0.001 | 0.00057 J | 0.00057 J |
| | P66-ROX-012914 | 1/29/2014 | | 36.39 | NE | <0.005 | <0.005 | | <0.005 | | 0.131 | <0.005 | <0.001 | <0.005 | 0.157 | 0.0017 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | 0.0045 | 0.0045 |
| | P66-ROX-041114 | 4/11/2014 | 34.72 - 59.72 | 37.10 | NE | <0.005 | <0.005 | | <0.005 | | 0.115 | <0.005 | <0.001 | 0.0014 J | 0.136 | 0.0017 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | 0.00072 J | 0.0013 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | VOCs | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Ethyl methacrylate | Hexachlorobutadiene | Hexane[6] | 2-Hexanone (Methyl N-Butyl Ketone) | Isopentane[6] | Isopropylbenzene (Cumene) | 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) | Methyl tert-Butyl Ether (MTBE) | Naphthalene[4] | n-Propylbenzene | Toluene | 1,2,3-Trichlorobenzene | 1,2,4-Trichlorobenzene | 1,1,2-Trichloroethane | 1,2,3-Trimethylbenzene[6] | 1,2,4-Trimethylbenzene | 1,3,5-Trimethylbenzene | Vinyl acetate | m,p-Xylenes | o-Xylenes | Xylenes (total) |
| | | | | | Screening Values (mg/L) | | 0.007 [3] | 0.42 [3] | 0.035 [3] | | 0.7 [1] | 0.56 [3] | 0.07 [1] | 0.14 [1] | 0.7 [3] | 1.0 [1] | 0.0056 [3] | 0.07 [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-74 | P74-ROX-103111 | 10/31/2011 | 44.43 - 69.43 | 36.26 | NE | <0.005 | <0.005 | | <0.005 | | 0.0123 | <0.005 | 0.0222 | 0.0673 | 0.0222 | 0.669 | <0.005 | <0.005 | <0.001 | | 0.587 | 0.162 | <0.005 | 0.177 | <0.1 | 0.177 |
| | P74-ROX-011912 | 1/19/2012 | | 38.77 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | 0.0158 | 0.0012 J | 0.0038 | <0.005 | <0.005 | <0.001 | | 0.0292 | 0.0126 | <0.005 | 0.0526 | 0.0262 | 0.0788 |
| | P74-ROX-050712 | 5/7/2012 | | 39.92 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | 0.00024 | 0.001 J | 0.0017 | <0.005 | <0.005 | <0.001 | | 0.0155 | 0.0063 | <0.005 | 0.0273 | 0.0093 | 0.0366 |
| | P74-ROX-080612 | 8/6/2012 | | 40.71 | NE | <0.05 | <0.05 | | <0.05 UJ | | <0.05 | <0.05 | <0.01 | 0.0177 | <0.05 | 0.159 | <0.05 | <0.05 | <0.01 | | 0.187 | 0.0663 | <0.05 UJ | 0.388 | 0.125 | 0.512 |
| | P74-ROX-110112 | 11/1/2012 | | 41.72 | NE | <0.1 | <0.1 | | <0.1 | | <0.1 | <0.1 | <0.02 | 0.0834 J | <0.1 | 0.232 | <0.1 | <0.1 | <0.02 | | 0.125 | 0.0414 J | <0.1 | 0.246 | 0.0811 | 0.328 |
| | P74-ROX-011713 | 1/17/2013 | | 42.65 | NE | <0.1 | <0.1 | | <0.1 | | <0.1 | <0.1 | <0.02 | 0.141 | <0.1 | 0.278 | <0.1 | <0.1 | <0.02 | | 0.249 | 0.0973 J | <0.1 | 0.547 | <0.02 | 0.555 |
| | P74-ROX-041113 | 4/11/2013 | | 42.83 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | 0.0016 J | <0.005 | 0.003 | <0.005 | <0.005 | <0.001 | | 0.0184 | 0.0138 | <0.005 | 0.0456 | 0.0146 | 0.0601 |
| | P74-ROX-071513 | 7/15/2013 | | 40.11 | NE | <0.005 | <0.005 | | <0.005 | | 0.0031 J | <0.005 | <0.001 | 0.024 | 0.0054 | 0.0064 | <0.005 | <0.005 | <0.001 | | 0.101 | 0.0365 | <0.005 | 0.109 | 0.027 | 0.136 |
| | P74-ROX-101413 | 10/14/2013 | | 41.72 | NE | <0.005 | <0.005 | | <0.005 | | 0.0052 | 0.0074 | 0.0011 | 0.0257 | 0.0094 | 0.0344 | <0.005 | <0.005 | <0.001 | | 0.192 | 0.0739 | <0.005 | 0.237 | 0.0483 | 0.285 |
| | P74-ROX-012414 | 1/24/2014 | | 43.35 | NE | <0.005 | <0.005 | | <0.005 | | 0.0058 | <0.005 | <0.001 | 0.0322 | 0.0112 | 0.153 | <0.005 | <0.005 | <0.001 | | 0.292 | 0.11 | <0.005 | 0.316 | 0.0579 | 0.374 |
| | P74-ROX-041514 | 4/15/2014 | 44.43 - 69.43 | 44.74 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | 0.00074 J | <0.005 | 0.00078 J | <0.005 | <0.005 | <0.001 | | 0.0083 | 0.0039 J | <0.005 | 0.0193 | 0.0015 | 0.0208 |
| P-93A | P93A-ROX-081811 | 8/18/2011 | 48.17 - 63.17 | 39.40 | NE | <0.005 | <0.005 | | <0.005 | | 0.0236 J | <0.005 | 0.0356 | 0.0868 | 0.0254 | 0.0678 | <0.005 | <0.005 | <0.001 | | 0.237 | 0.0495 | <0.005 UJ | 0.745 | 0.09 | 0.835 |
| | P93A-ROX-102611 | 10/26/2011 | | 39.43 | NE | <0.005 | <0.005 | | <0.005 | | 0.0189 | <0.005 | 0.0405 | 0.108 | 0.0172 | 0.0438 | <0.005 UJ | <0.005 | <0.001 | | 0.171 | 0.0399 | <0.005 | 0.482 | 0.0614 | 0.543 |
| | P93A-ROX-012012 | 1/20/2012 | | 41.66 | NE | <0.005 | <0.005 | | 0.0041 J | | 0.0134 | <0.005 | 0.0604 | 0.059 J | 0.0134 | 0.0196 | <0.005 | <0.005 | <0.001 | | 0.101 | 0.025 | <0.005 UJ | 0.292 | 0.0416 | 0.333 |
| | P93A-ROX-050812 | 5/8/2012 | | 42.75 | NE | <0.005 UJ | <0.005 UJ | | <0.005 UJ | | 0.0218 J | <0.005 UJ | 0.0557 J | 0.0472 | 0.0239 J | 0.0407 J | <0.005 UJ | <0.005 UJ | <0.001 UJ | | 0.194 J | 0.0416 J | <0.005 UJ | 0.647 J | 0.0841 J | 0.731 J |
| | P93A-ROX-080912 | 8/9/2012 | | 43.66 | NE | <0.005 | <0.005 | | <0.005 | | 0.0126 | <0.005 | 0.0485 | 0.0496 | 0.0137 | 0.0091 | <0.005 | <0.005 | <0.001 | | 0.145 | 0.0273 | <0.005 | 0.436 | 0.0642 | 0.5 |
| | P93A-ROX-110712 | 11/7/2012 | | 45.00 | NE | <0.5 | <0.5 | | <0.5 | | <0.5 | <0.5 | <0.1 | <0.5 | <0.5 | <0.1 | <0.5 | <0.5 | <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 | <0.5 | <0.5 | | <0.5 | | <0.5 | <0.5 | <0.1 | <0.5 | <0.5 | <0.1 | <0.5 | <0.5 | <0.1 | | <0.5 | <0.5 | <0.5 | 0.404 | 0.073 J | 0.477 |
| | P93A-ROX-012313 | 1/23/2013 | | 45.89 | NE | <2.5 | <2.5 | | <2.5 | | <2.5 | <2.5 | <0.5 | <2.5 | <2.5 | <0.5 | <2.5 | <2.5 | <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 | <2.5 | <2.5 | | <2.5 | | <2.5 | <2.5 | <0.5 | <2.5 | <2.5 | <0.5 | <2.5 | <2.5 | <0.5 | | <2.5 | <2.5 | <2.5 UJ | <0.5 | <0.5 | <0.5 |
| | P93A-ROX-041113 | 4/11/2013 | | 46.29 | NE | <2.5 | <2.5 | | <2.5 | | <2.5 | <2.5 | <0.5 | <2.5 | <2.5 | <0.5 | <2.5 | <2.5 | <0.5 | | <2.5 | <2.5 | <2.5 | <0.5 | <0.5 | <0.5 |
| | P93A-ROX-041113-DUP | 4/11/2013 | | 46.29 | NE | <2.5 | <2.5 | | <2.5 | | <2.5 | <2.5 | <0.5 | <2.5 | <2.5 | <0.5 | <2.5 | <2.5 | <0.5 | | <2.5 | <2.5 | <2.5 | <0.5 | <0.5 | <0.5 |
| | P93A-ROX-071813 | 7/18/2013 | | 43.25 | NE | <0.005 | <0.005 | | <0.005 | | 0.0101 | <0.005 | 0.0054 J | 0.0303 | 0.0113 | 0.0072 | <0.005 | <0.005 | <0.001 | | 0.0915 | 0.0116 | <0.005 UJ | 0.273 | 0.0426 | 0.316 |
| | P93A-ROX-101113 | 10/11/2013 | | 44.18 | NE | <0.005 | <0.005 | | <0.005 | | 0.0142 | <0.005 | 0.0034 | 0.0621 | 0.015 | 0.0133 | <0.005 | <0.005 | <0.001 | | 0.146 | 0.0163 | <0.005 UJ | 0.451 | 0.0789 | 0.53 |
| | P93A-ROX-012914 | 1/29/2014 | | 46.53 | NE | <2.5 | <2.5 | | <2.5 | | <2.5 | <2.5 | <0.5 | <2.5 | <2.5 | <0.5 | <2.5 | <2.5 | <0.5 | | <2.5 | <2.5 | <2.5 | <0.5 | <0.5 | <0.5 |
| | P93A-ROX-041714 | 4/17/2014 | 48.17 - 63.17 | 47.41 | NE | <2.5 | <2.5 | | <2.5 | | <2.5 | <2.5 | <0.5 | <2.5 | <2.5 | <0.5 | <2.5 | <2.5 | <0.5 | | <2.5 | <2.5 | <2.5 | <0.5 | <0.5 | <0.5 |
| P-93B | P93B-ROX-081811 | 8/18/2011 | 74.60 - 76.60 | 39.44 | NE | <5 | <5 | | <5 | | <5 | <5 | <1 | 0.0037 | <5 | <1 | <5 | <5 | <1 | | <5 | <5 | <5 | <1 | <1 | <1 |
| | P93B-ROX-102611 | 10/26/2011 | | 39.48 | NE | <0.005 | <0.005 | | <0.005 | | 0.0292 | <0.005 | <0.001 | 0.012 | 0.0359 | 0.0859 | <0.005 UJ | <0.005 | <0.001 | | 0.0303 | 0.0082 | <0.005 | 0.167 | 0.0352 | 0.202 |
| | P93B-ROX-012012 | 1/20/2012 | | 41.72 | NE | <0.005 | <0.005 | | <0.005 | | 0.022 J | <0.005 | 0.0063 J | 0.0041 J J | 0.0244 J | 0.0678 J | <0.005 | <0.005 | <0.001 | | 0.0114 J | 0.0028 J J | <0.005 UJ | 0.0598 J | 0.0224 J | 0.0822 J |
| | P93B-ROX-050812 | 5/8/2012 | | 42.79 | NE | <0.005 | <0.005 | | <0.005 | | 0.0188 J | <0.005 | <0.001 | 0.002 | 0.0272 J | 0.0512 J | <0.005 | <0.005 | <0.001 | | 0.0196 J | 0.0054 J | <0.005 | 0.116 J | 0.0251 J | 0.141 J |
| | P93B-ROX-080912 | 8/9/2012 | | 43.69 | NE | <0.005 | <0.005 | | <0.005 | | 0.0266 | <0.005 | <0.001 | 0.0049 | 0.0406 | 0.0786 | <0.005 | <0.005 | <0.001 | | 0.0372 | 0.0107 | <0.005 | 0.245 | 0.0468 | 0.292 |
| | P93B-ROX-110712 | 11/7/2012 | | 45.05 | NE | <0.5 | <0.5 | | <0.5 | | <0.5 | <0.5 | <0.1 | <0.5 | <0.5 | <0.1 | <0.5 | <0.5 | <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 | <0.5 | <0.5 | | <0.5 | | <0.5 | <0.5 | <0.1 | <0.5 | <0.5 | 0.0719 J | <0.5 | <0.5 | <0.1 | | <0.5 | <0.5 | <0.5 | 0.237 | <0.1 | 0.237 |
| | P93B-ROX-012313 | 1/23/2013 | | 45.89 | NE | <5 | <5 | | <5 | | <5 | <5 | <1 | <5 | <5 | <1 | <5 | <5 | <1 | | <5 | <5 | <5 UJ | <1 | <1 | <1 |
| | P93B-ROX-041113 | 4/11/2013 | | 46.32 | NE | <2.5 | <2.5 | | <2.5 | | <2.5 | <2.5 | <0.5 | <2.5 | <2.5 | <0.5 | <2.5 | <2.5 | <0.5 | | <2.5 | <2.5 | <2.5 | <0.5 | <0.5 | <0.5 |
| | P93B-ROX-071813 | 7/18/2013 | | 43.30 | NE | <0.005 | <0.005 | | <0.005 | | 0.0247 | <0.005 | 0.0035 J | 0.0093 | 0.0357 | 0.0646 | <0.005 | <0.005 | <0.001 | | 0.025 | 0.0069 | 0.0176 J | 0.195 | 0.0418 | 0.236 |
| | P93B-ROX-101613 | 10/16/2013 | | 44.43 | NE | <10 UJ | <10 | | <10 | | <10 | <10 | <2 UJ | <10 | <10 | <2 | <10 | <10 | <2 | | <10 | <10 | <10 UJ | <2 | <2 | <2 |
| | P93B-ROX-101613-DUP | 10/16/2013 | | 44.43 | NE | <10 UJ | <10 | | <10 | | <10 | <10 | <2 UJ | <10 | <10 | <2 | <10 | <10 | <2 | | <10 | <10 | <10 UJ | <2 | <2 | <2 |
| | P93B-ROX-012814 | 1/28/2014 | | 46.58 | NE | <5 | <5 | | <5 | | <5 | <5 | <1 | <5 | <5 | <1 | <5 | <5 | <1 | | <5 | <5 | <5 | <1 | <1 | <1 |
| | P93B-ROX-012814-DUP | 1/28/2014 | | 46.58 | NE | <5 | <5 | | <5 UJ | | <5 | <5 | <1 | <5 | <5 | <1 | <5 | <5 | <1 | | <5 | <5 | <5 | <1 | <1 | <1 |
| | P93B-ROX-041714 | 4/17/2014 | 74.60 - 76.60 | 47.46 | NE | <2.5 | <2.5 | | <2.5 | | <2.5 | <2.5 | <0.5 | <2.5 | <2.5 | <0.5 | <2.5 | <2.5 | <0.5 | | <2.5 | <2.5 | <2.5 | <0.5 | <0.5 | <0.5 |
| | P93B-ROX-041714-DUP | 4/17/2014 | | 47.46 | NE | <2.5 | <2.5 | | <2.5 | | <2.5 | <2.5 | <0.5 | <2.5 | <2.5 | <0.5 | <2.5 | <2.5 | <0.5 | | <2.5 | <2.5 | <2.5 | <0.5 | <0.5 | <0.5 |
| P-93C | P93C-ROX-081811 | 8/18/2011 | 94.26 - 96.26 | 39.32 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0067 | <0.000054 U | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.001 |
| | P93C-ROX-102611 | 10/26/2011 | | 39.36 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0096 | <0.0001 | <0.005 | <0.001 | <0.005 UJ | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P93C-ROX-012012 | 1/20/2012 | | 41.57 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.006 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P93C-ROX-050812 | 5/8/2012 | | 42.68 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.004 | <0.00011 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P93C-ROX-080912 | 8/9/2012 | | 43.57 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0053 | 0.000065 J | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P93C-ROX-110812 | 11/8/2012 | | 45.12 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0056 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P93C-ROX-012313 | 1/23/2013 | | 45.78 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0044 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.001 |
| | P93C-ROX-041213 | 4/12/2013 | | 46.21 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0045 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P93C-ROX-071813 | 7/18/2013 | | 43.31 | NE | <0.005 | <0.005 | | <0.005 | | 0.002 J | <0.005 | 0.0049 J | <0.005 | 0.002 J | 0.007 | <0.005 | <0.005 | <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 | <0.25 | <0.25 | | <0.25 | | <0.25 | <0.25 | <0.05 | <0.25 | <0.25 | <0.05 | <0.25 | <0.25 | <0.05 | | <0.25 | <0.25 | <0.25 | <0.05 | <0.05 | <0.05 |
| | P93C-ROX-101613 | 10/16/2013 | | 44.31 | NE | <0.005 UJ | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0035 J | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.001 |
| | P93C-ROX-012414 | 1/24/2014 | | 46.44 | NE | <0.005 | <0.005 | | <0.005 UJ | | <0.005 | <0.005 | 0.0047 J | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P93C-ROX-041714 | 4/17/2014 | 94.26 - 96.26 | 47.34 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0043 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | VOCs | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Ethyl methacrylate | Hexachlorobutadiene | Hexane[6] | 2-Hexanone (Methyl N-Butyl Ketone) | Isopentane[6] | Isopropylbenzene (Cumene) | 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) | Methyl tert-Butyl Ether (MTBE) | Naphthalene[4] | n-Propylbenzene | Toluene | 1,2,3-Trichlorobenzene | 1,2,4-Trichlorobenzene | 1,1,2-Trichloroethane | 1,2,3-Trimethylbenzene[6] | 1,2,4-Trimethylbenzene | 1,3,5-Trimethylbenzene | Vinyl acetate | m,p-Xylenes | o-Xylenes | Xylenes (total) |
| | | | | Screening Values (mg/L) | | | 0.007 [3] | 0.42 [3] | 0.035 [3] | | 0.7 [1] | 0.56 [3] | 0.07 [1] | 0.14 [1] | 0.7 [3] | 1.0 [1] | 0.0056 [3] | 0.07 [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-93D | P93D-ROX-081811 | 8/18/2011 | 125.75 - 127.75 | 39.46 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.00095 J | <0.000087 U | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.001 |
| | P93D-ROX-102711 | 10/27/2011 | | 39.59 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.004 J | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P93D-ROX-012012 | 1/20/2012 | | 41.77 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | 0.00016 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P93D-ROX-050812 | 5/8/2012 | | 42.96 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.00077 J | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P93D-ROX-080812 | 8/8/2012 | | 43.71 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.0092 U | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P93D-ROX-110812 | 11/8/2012 | | NM | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0023 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P93D-ROX-012213 | 1/22/2013 | | 44.21 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | 0.0015 J | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P93D-ROX-041113 | 4/11/2013 | | 46.37 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P93D-ROX-071213 | 7/12/2013 | | 43.51 | NE | <0.005 | <0.005 UJ | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.001 |
| | P93D-ROX-101113 | 10/11/2013 | | 44.24 | NE | <0.005 UJ | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.00066 J J | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.001 |
| | P93D-ROX-013114 | 1/31/2014 | | 46.62 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0011 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P93D-ROX-041414 | 4/14/2014 | 125.75 - 127.75 | 47.54 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | 0.0017 J | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| P-114 | P114-ROX-102811 | 10/28/2011 | 32.67 - 52.67 | 24.73 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0036 J | <0.000095 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P114-ROX-012012 | 1/20/2012 | | 27.17 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P114-ROX-050912 | 5/9/2012 | | 28.09 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0035 J | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P114-ROX-080912 | 8/9/2012 | | 29.13 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.00083 J | <0.0001 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | 0.00039 J | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P114-ROX-110912 | 11/9/2012 | | 30.90 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0076 J | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <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 | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.003 J | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.001 |
| | P114-ROX-041513 | 4/15/2013 | | 31.80 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0051 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P114-ROX-071813 | 7/18/2013 | | 27.22 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0023 J | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <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 | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0022 J | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 UJ | <0.001 | <0.001 | <0.001 |
| | P114-ROX-101713 | 10/17/2013 | | 29.43 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0036 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P114-ROX-012814 | 1/28/2014 | | 32.11 | NE | <0.005 | <0.005 | | <0.005 UJ | | <0.005 | <0.005 | 0.0153 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | P114-ROX-042114 | 4/21/2014 | 32.67 - 52.67 | 32.22 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | 0.0093 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| ROST-3-PZ | ROST3PZ-ROX-051412 | 5/14/2012 | 40.00 - 50.00 | 38.82 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | 0.00048 | 0.00096 J | 0.0038 | <0.005 | <0.005 | <0.001 | | 0.0095 | 0.0023 J | <0.005 | 0.0607 | 0.0151 | 0.0758 |
| | ROST3PZ-ROX-080712 | 8/7/2012 | | 39.00 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | 0.00038 | <0.005 | 0.0015 | <0.005 | <0.005 | <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 | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | 0.0026 J | <0.005 | <0.005 | 0.0122 | 0.0037 | 0.0159 |
| ROST-3-MW | ROST3MW-ROX-012313 | 1/23/2013 | 37.81 - 47.81 | 41.50 | NE | <0.005 | <0.005 | | <0.005 | | 0.0066 | <0.005 | <0.001 | 0.0076 | 0.0156 | 0.0016 | <0.005 | <0.005 | <0.001 | | 0.0786 | 0.022 | <0.005 UJ | 0.114 | 0.0159 | 0.13 |
| | ROST3MW-ROX-040513 | 4/5/2013 | | | | <0.005 | <0.005 | | <0.005 | | 0.0032 J | <0.005 | <0.001 | 0.132 J | 0.0082 | 0.0076 | <0.005 | <0.005 | <0.001 | | 0.0531 | 0.0145 | <0.005 | 0.0603 | 0.0126 | 0.0729 |
| | ROST3MW-ROX-071113 | 7/11/2013 | | 39.50 | NE | <0.005 | <0.005 | | <0.005 UJ | | 0.0146 | <0.005 | <0.001 | 0.0411 | 0.0279 | 0.014 | <0.005 | <0.005 | <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 | <0.005 | <0.005 UJ | | <0.005 | | 0.0017 J | <0.005 | <0.001 | 0.0045 J | 0.0029 J | 0.0018 | <0.005 | <0.005 | <0.001 | | 0.0168 | 0.0035 J | <0.005 | 0.0422 | 0.0123 | 0.0546 |
| | ROST3MW-ROX-011714 | 1/17/2014 | | 42.20 | NE | <0.005 | <0.005 | | <0.005 | | 0.00099 J | <0.005 | <0.001 | <0.005 | 0.002 J | 0.0012 | <0.005 | <0.005 | <0.001 | | 0.0207 | 0.0057 | <0.005 | 0.0377 | 0.0063 | 0.044 |
| | ROST3MW-ROX-041014 | 4/10/2014 | 37.81 - 47.81 | 42.80 | NE | <0.005 | <0.005 | | <0.005 | | 0.00043 J | <0.005 | <0.001 | 0.00084 J | 0.00082 J | 0.0015 | <0.005 | <0.005 | <0.001 | | 0.0121 | 0.003 J | <0.005 | 0.0287 | 0.0028 | 0.0315 |
| ROST-4-PZ(C) | ROST4PZ-C-051412 | 5/14/2012 | 34.95 - 44.95 | 39.04 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | 0.0018 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | <0.001 | <0.001 | <0.001 |
| | ROST4PZ-C-ROX-072512 | 7/25/2012 | | 39.10 | NE | <0.005 | <0.005 UJ | | <0.005 | | 0.0036 J | <0.005 | <0.001 | 0.0331 | 0.0059 | 0.0596 | <0.005 | <0.005 | <0.001 | | 0.0374 | 0.0076 | <0.005 | 0.373 | 0.207 | 0.581 |
| | ROST4PZC-ROX-102912 | 10/29/2012 | | 40.75 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | 0.0021 | <0.001 | 0.0021 |
| | ROST4PZ(C)-ROX-011113 | 1/11/2013 | | 41.42 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | <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 | <0.005 | <0.005 | | <0.005 UJ | | 0.00061 J J | <0.005 UJ | <0.001 | <0.005 | 0.0011 J | 0.0006 J J | <0.005 UJ | <0.005 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 | <0.005 | <0.005 | | <0.005 UJ | | 0.0025 J | <0.005 | <0.001 | 0.0189 | 0.0041 J | 0.041 | <0.005 | <0.005 | <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 | <0.005 | <0.005 UJ | | <0.005 | | 0.00066 J | <0.005 | <0.001 | 0.0054 | 0.0012 J | 0.0013 | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | 0.0101 | 0.0054 | 0.0155 |
| | ROST4PZC-ROX-011714 | 1/17/2014 | | 41.92 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | 0.00073 J | 0.0014 | <0.005 | <0.005 | <0.001 | | 0.0017 J | <0.005 | <0.005 | 0.0124 | 0.0057 | 0.018 |
| | ROST4PZC-ROX-041014 | 4/10/2014 | 34.95 - 44.95 | 42.05 | NE | <0.005 | <0.005 | | <0.005 | | <0.005 | <0.005 | <0.001 | <0.005 | <0.005 | 0.00057 J | <0.005 | <0.005 | <0.001 | | <0.005 | <0.005 | <0.005 | 0.0015 | 0.0015 | 0.003 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | VOCs | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Ethyl methacrylate | Hexachlorobutadiene | Hexane[6] | 2-Hexanone (Methyl N-Butyl Ketone) | Isopentane[6] | Isopropylbenzene (Cumene) | 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) | Methyl tert-Butyl Ether (MTBE) | Naphthalene[4] | n-Propylbenzene | Toluene | 1,2,3-Trichlorobenzene | 1,2,4-Trichlorobenzene | 1,1,2-Trichloroethane | 1,2,3-Trimethylbenzene[6] | 1,2,4-Trimethylbenzene | 1,3,5-Trimethylbenzene | Vinyl acetate | m,p-Xylenes | o-Xylenes | Xylenes (total) |
| | | | | | Screening Values (mg/L) | | 0.007 [3] | 0.42 [3] | 0.035 [3] | | 0.7 [1] | 0.56 [3] | 0.07 [1] | 0.14 [1] | 0.7 [3] | 1.0 [1] | 0.0056 [3] | 0.07 [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) | | | | | | | | | | | | | | | | | | | | |
| T-12 | T12-ROX-102711 | 10/27/2011 | 46.72 - 72.72 | 38.54 | NE | <0.05 | <0.05 | | <0.05 | | <0.05 | <0.05 | <0.01 | 0.105 | <0.05 | 0.233 | <0.05 | <0.05 | <0.01 | | 0.358 | 0.0527 | <0.05 | 1.13 | 0.108 | 1.24 |
| | T12-ROX-011912 | 1/19/2012 | | 41.0 | NE | <0.005 | <0.005 | | <0.005 | | 0.022 | <0.005 | 0.0016 | 0.132 | 0.03 | 0.175 | <0.005 | <0.005 | <0.001 | | 0.34 | 0.0715 | 0.0952 | 0.684 | 0.0399 | 0.724 |
| | T12-ROX-050912 | 5/9/2012 | | 42.62 | NE | <0.025 | <0.025 | | <0.025 | | 0.0572 | <0.025 | <0.005 | 0.0924 | 0.101 | 0.388 | <0.025 | <0.025 | <0.005 | | 0.476 | 0.0765 | <0.025 | 2.87 | 0.251 | 3.12 |
| | T12-ROX-080212 | 8/2/2012 | | 41.92 | NE | <0.05 | <0.05 | | <0.05 | | 0.0297 J | <0.05 | <0.01 | 0.0625 | 0.0486 J | 0.197 | <0.05 | <0.05 | <0.01 | | 0.403 | 0.0474 J | <0.05 | 1.32 | 0.0709 | 1.39 |
| | T12-ROX-110512 | 11/5/2012 | | 43.91 | NE | <0.05 | <0.05 | | <0.05 | | 0.0468 J | <0.05 | <0.01 | 0.125 | 0.0831 | 0.322 | <0.05 | <0.05 | <0.01 | | 0.385 | 0.0543 | <0.05 | 2.55 | 0.176 | 2.73 |
| | T12-ROX-011813 | 1/18/2013 | | 44.50 | NE | <0.025 | <0.025 | | <0.025 | | 0.031 | <0.025 | <0.005 | 0.129 | 0.0466 | 0.184 | <0.025 | <0.025 | <0.005 | | 0.42 | 0.0407 | <0.025 | 1.11 | 0.0252 | 1.13 |
| | T12-ROX-041513 | 4/15/2013 | | 44.99 | NE | <0.05 | <0.05 | | <0.05 | | 0.0405 J | <0.05 | <0.01 | 0.266 J | 0.076 | 0.592 | <0.05 | <0.05 | <0.01 | | 0.309 | <0.05 | <0.05 | 1.2 | 0.104 | 1.3 |
| | T12-ROX-071613 | 7/16/2013 | | 42.33 | NE | <0.005 | <0.005 UJ | | <0.005 | | 0.0363 J | <0.005 | <0.001 | 0.122 J | 0.0627 J | 0.186 J | <0.005 | <0.005 | <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 | <0.025 | <0.025 | | <0.025 | | 0.0618 | <0.025 | <0.005 | 0.215 J | 0.114 | 0.697 | <0.025 | <0.025 | <0.005 | | 0.575 | 0.0607 | <0.025 | 2.43 | 0.139 | 2.57 |
| | T12-ROX-012414 | 1/24/2014 | | 45.26 | NE | <0.005 | <0.005 | | <0.005 | | 0.0362 | <0.005 | <0.001 | 0.171 | 0.0676 | 0.421 | <0.005 | <0.005 | <0.001 | | 0.526 | 0.0507 | <0.005 | 1.12 | 0.0469 | 1.23 |
| | T12-ROX-041514 | 4/15/2014 | 46.72 - 72.72 | 46.72 | NE | <0.005 | <0.005 | | <0.005 | | 0.0306 | <0.005 | <0.001 | 0.12 | 0.0534 | 0.406 | <0.005 | <0.005 | <0.001 | | 0.22 J | 0.0339 | <0.005 | 0.841 | 0.0401 | 0.864 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | SVOCs | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Acenaphthene | Acenaphthylene | Aniline | Anthracene | Benzo(a)anthracene | Benzo(e)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-072711 | 7/27/2011 | 43.41 - 58.41 | 35.77 | 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 | <0.005 | <0.01 | <0.005 | <0.01 |
| | MW1-ROX-120511 | 12/5/2011 | | 37.10 | NE | <0.0001 | <0.0001 | <0.01 | <0.0001 | <0.000051 | <0.0001 | <0.000056 U | <0.0001 | <0.0001 | <0.01 UJ | <0.01 | <0.0051 | <0.002 | <0.0051 | <0.01 | <0.0051 | <0.0001 | <0.0001 | <0.0051 | <0.01 | <0.0051 | <0.01 |
| | MW1-ROX-011612 | 1/16/2012 | 48.80 - 58.80 | 37.75 | NE | 0.000077 J | 0.000035 J | <0.01 | 0.000062 J | 0.00011 | 0.0001 | 0.00011 | <0.00011 U | 0.00012 | <0.01 UJ | <0.01 | <0.0051 | <0.002 | <0.00039 U | <0.01 | <0.0051 | 0.00011 | <0.00011 U | <0.0051 | <0.01 | <0.0051 | <0.01 |
| | MW1-ROX-050112 | 5/1/2012 | | 39.09 | NE | <0.0001 | <0.0001 | <0.01 UJ | <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 | <0.0051 | <0.01 | <0.0051 | <0.01 |
| | MW1-ROX-073012 | 7/30/2012 | | 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 | 48.80 - 58.80 | 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 |
| MW-02 | MW2-ROX-072711 | 7/27/2011 | 47.19 - 62.19 | 37.04 | 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 | <0.005 | <0.01 | <0.005 | <0.01 |
| | MW2-ROX-072711-DUP | 7/27/2011 | | 37.04 | 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 | <0.005 | <0.01 | <0.005 | <0.01 |
| | MW2-ROX-112811 | 11/28/2011 | 49.87 - 59.87 | 38.03 | NE | <0.0001 | <0.0001 | <0.01 UJ | <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 | <0.005 | <0.01 | <0.005 | <0.01 |
| | MW2-ROX-011612 | 1/16/2012 | | 38.89 | NE | 0.000057 J | <0.00011 | <0.011 | <0.00011 | <0.000053 | 0.000033 J | 0.00004 J | <0.000047 U | <0.00011 | <0.011 UJ | <0.011 | <0.0053 | <0.00083 U | <0.00047 U | <0.011 | <0.0053 | <0.00011 | <0.000047 U | <0.0053 | <0.011 | <0.0053 | 0.0035 J |
| | MW2-ROX-050112 | 5/1/2012 | | 40.25 | NE | <0.0001 | <0.0001 | <0.01 UJ | <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 | <0.0052 | <0.01 | <0.0052 | 0.0055 J |
| | MW2-ROX-073012 | 7/30/2012 | | 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 | 49.87 - 59.87 | 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 |
| MW-03 | MW3-ROX-080311 | 8/3/2011 | 30.98 - 45.98 | 22.72 | NE | <0.000095 | <0.000095 | <0.0095 | <0.000095 | <0.000048 | <0.000095 | <0.000048 | <0.000095 | <0.000095 | <0.0095 UJ | <0.0095 | <0.0048 | 0.0084 | <0.0048 | <0.0095 | <0.0048 | <0.000095 | <0.000095 | <0.0048 | <0.0095 | <0.0048 | <0.0095 |
| | MW3-ROX-112911 | 11/29/2011 | 34.67 - 44.67 | 24.06 | NE | <0.0001 | <0.0001 | <0.01 UJ | <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 | <0.0052 | <0.01 | <0.0052 | <0.01 |
| | MW3-ROX-112911-DUP | 11/29/2011 | | 24.06 | NE | <0.0001 | <0.0001 | <0.01 UJ | <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 | <0.0051 | <0.01 | <0.0051 | <0.01 |
| | MW3-ROX-011612 | 1/16/2012 | | 24.93 | NE | <0.0001 | <0.0001 | <0.01 | 0.000063 J | 0.00011 | 0.00012 | 0.00013 | <0.00013 U | 0.00012 | <0.01 UJ | <0.01 | <0.0052 | <0.0004 U | <0.00039 U | <0.01 | <0.0052 | 0.000098 J | <0.00013 U | <0.0052 | <0.01 | <0.0052 | <0.01 |
| | MW3-ROX-043012 | 4/30/2012 | | 26.19 | 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 | <0.0052 | <0.01 | <0.0052 | <0.01 |
| | MW3-ROX-072712 | 7/27/2012 | | 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 | 34.67 - 44.67 | 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 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | SVOCs | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Acenaphthene | Acenaphthylene | Aniline | Anthracene | Benzo(a)anthracene | Benzo(e)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-072611 | 7/26/2011 | 42.63 - 57.63 | 34.15 | NE | <0.0001 | <0.0001 | <0.01 UJ | <0.0001 | <0.00005 | <0.0001 | <0.00005 | <0.0001 | <0.0001 | 0.0102 | <0.01 | <0.005 | <0.0057 U | <0.005 | <0.01 | <0.005 | <0.0001 | <0.0001 | <0.005 | <0.01 | <0.005 | <0.01 |
| | MW4-ROX-072611-DUP | 7/26/2011 | | 34.15 | NE | <0.0001 | <0.0001 | <0.01 UJ | <0.0001 | <0.00005 | <0.0001 | <0.00005 | <0.0001 | <0.0001 | 0.0103 | <0.01 | <0.005 | <0.002 U | <0.005 | <0.01 | <0.005 | <0.0001 | <0.0001 | <0.005 | <0.01 | <0.005 | <0.01 |
| | MW4-ROX-121511 | 12/15/2011 | | 33.99 | NE | <0.0001 | 0.00011 | <0.01 UJ | <0.0001 | <0.000052 | 0.00012 | <0.000087 U | <0.00063 U | <0.0001 | <0.01 UJ | <0.01 | <0.0052 | <0.0028 U | <0.0052 | <0.01 | <0.0052 | <0.0001 | <0.00035 U | <0.0052 | <0.01 | <0.0052 | <0.01 |
| | MW4-ROX-011612 | 1/16/2012 | 46.06 - 56.06 | 36.00 | NE | <0.0001 | <0.0001 | <0.01 | 0.00003 J | 0.00012 | 0.00012 | 0.00013 | <0.0002 U | 0.00015 | <0.01 UJ | <0.01 | <0.0052 | <0.0005 U | <0.00073 U | <0.01 | <0.0052 | 0.00014 | <0.00019 U | <0.0052 | <0.01 | <0.0052 | <0.01 |
| | MW4-ROX-050312 | 5/3/2012 | | 37.45 | 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 | <0.005 | <0.01 | <0.005 | <0.01 |
| | MW4-ROX-050312-DUP | 5/3/2012 | | 37.45 | 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 | <0.0051 | <0.01 | <0.0051 | <0.01 |
| | MW4-ROX-072512 | 7/25/2012 | | 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 | 46.06 - 56.06 | 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 |
| MW-05 | MW5-ROX-072611 | 7/26/2011 | 31.13 - 46.13 | 22.00 | 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 | <0.005 | <0.01 | <0.005 | <0.01 |
| | MW5-ROX-072611-DUP | 7/26/2011 | | 22.00 | 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 | <0.005 | <0.01 | <0.005 | <0.01 |
| | MW5-ROX-112111 | 11/21/2011 | 33.97 - 43.97 | 23.46 | 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 | 0.00079 J | <0.0053 | <0.011 | <0.0053 | <0.00011 | <0.00011 | <0.0053 | <0.011 | <0.0053 | <0.011 |
| | MW5-ROX-011712 | 1/17/2012 | | 24.76 | 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 | <0.0015 U | <0.00049 U | <0.011 | <0.0053 | <0.00011 | <0.00011 | <0.0053 | <0.011 | <0.0053 | <0.011 |
| | MW5-ROX-050312 | 5/3/2012 | | 25.89 | 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 | <0.0051 | <0.01 | <0.0051 | <0.01 |
| | MW5-ROX-072512 | 7/25/2012 | | 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 | 33.97 - 43.97 | 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 |
| MW-06A | MW6A-ROX-072611 | 7/26/2011 | 31.98 - 46.98 | 23.76 | NE | 0.00024 | <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 U | <0.005 | <0.01 | <0.005 | <0.0001 | <0.0001 | <0.005 | <0.01 | <0.005 | <0.01 |
| | MW6A-ROX-112111 | 11/21/2011 | 34.83 - 44.83 | 25.49 | 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 | 0.0023 | 0.00077 J | <0.01 | <0.0052 | <0.0001 | <0.0001 | <0.0052 | <0.01 | <0.0052 | <0.01 |
| | MW6A-ROX-112111-DUP | 11/21/2011 | | 25.49 | 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 | 0.0011 J | 0.00054 J | <0.01 | <0.0051 | <0.0001 | <0.0001 | <0.0051 | <0.01 | <0.0051 | <0.01 |
| | MW6A-ROX-011712 | 1/17/2012 | | 26.74 | NE | <0.00011 | <0.00011 | <0.011 | <0.00011 | <0.000064 U | <0.00008 U | <0.00009 U | <0.00015 U | 0.000094 J | <0.011 UJ | <0.011 | <0.0054 | <0.0022 | <0.0054 | <0.011 | <0.0054 | <0.00011 | <0.00014 U | <0.0054 | <0.011 | <0.0054 | <0.011 |
| | MW6A-ROX-050212 | 5/2/2012 | | 27.77 | NE | <0.0001 | <0.0001 | <0.01 | <0.0001 | <0.00005 | <0.0001 | <0.00005 | <0.0001 | <0.0001 | <0.0029 UJ | <0.01 | <0.005 | <0.002 | <0.005 | <0.01 | <0.005 | <0.0001 | <0.0001 | <0.005 | <0.01 | <0.005 | <0.01 |
| | MW6A-ROX-080112 | 8/1/2012 | | 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 | 34.83 - 44.83 | 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 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | SVOCs | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Acenaphthene | Acenaphthylene | Aniline | Anthracene | Benzo(a)anthracene | Benzo(e)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-072311 | 7/23/2011 | 64.05 - 69.05 | 23.60 | NE | <0.00011 | <0.00011 | <0.011 UJ | <0.00011 | <0.00075 U | <0.0002 U | <0.00019 U | <0.00007 U | <0.00023 U | <0.011 UJ | <0.011 | <0.0053 | 0.00077 J | <0.0053 | <0.011 | <0.0053 | <0.0008 U | <0.000031 U | <0.0053 | <0.011 | <0.0053 | <0.011 |
| | MW6B-ROX-110311 | 11/3/2011 | | 24.67 | 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 | <0.005 | <0.01 | <0.005 | <0.01 UJ |
| | MW6B-ROX-011712 | 1/17/2012 | | 26.77 | NE | <0.00011 | <0.00011 | <0.011 | <0.00011 | <0.000055 | <0.00015 U | <0.00011 U | <0.00028 U | 0.0001 J | <0.011 UJ | <0.011 | <0.0055 | <0.0011 U | <0.0055 | <0.011 | <0.0055 | <0.00011 | <0.00027 U | <0.0055 | <0.011 | <0.0055 | <0.011 |
| | MW6B-ROX-050212 | 5/2/2012 | | 27.82 | 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 | <0.005 | <0.0001 | <0.0001 | <0.005 | <0.01 | <0.005 | <0.01 |
| | MW6B-ROX-080112 | 8/1/2012 | | 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 | 0.00049 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 | 64.05 - 69.05 | 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 |
| MW-06C | MW6C-ROX-072411 | 7/24/2011 | 84.95 - 89.95 | 23.43 | NE | <0.00011 | <0.00011 | <0.011 UJ | <0.00011 | 0.00016 B | 0.00013 B | 0.00014 B | 0.000041 J | 0.00016 B | <0.011 UJ | <0.011 | <0.0053 | <0.0021 | <0.0053 | <0.011 | <0.0053 | 0.00015 B | <0.00011 | <0.0053 | <0.011 | <0.0053 | <0.011 |
| | MW6C-ROX-110311 | 11/3/2011 | | 24.47 | 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 | <0.005 | <0.01 | <0.005 | <0.01 UJ |
| | MW6C-ROX-011712 | 1/17/2012 | | 26.50 | 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 | <0.00046 U | <0.011 | <0.0054 | <0.00011 | <0.00011 | <0.0054 | <0.011 | <0.0054 | <0.011 |
| | MW6C-ROX-050212 | 5/2/2012 | | 27.62 | 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 | <0.005 | <0.0001 | <0.0001 | <0.005 | <0.01 | <0.005 | <0.01 |
| | MW6C-ROX-080112 | 8/1/2012 | | 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 | 84.95 - 89.95 | 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 |
| MW-06D | MW6D-ROX-072311 | 7/23/2011 | 104.72 - 109.72 | 23.29 | NE | <0.00011 | <0.00011 | <0.011 UJ | <0.00011 | <0.00038 U | <0.00015 U | <0.00017 U | <0.000049 U | <0.00019 U | <0.011 UJ | <0.011 | <0.0053 | <0.0021 | <0.0053 | <0.011 | <0.0053 | <0.00039 U | <0.00011 | <0.0053 | <0.011 | <0.0053 | <0.011 |
| | MW6D-ROX-110311 | 11/3/2011 | | 24.31 | 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 | <0.0052 | <0.01 | <0.0052 | <0.01 UJ |
| | MW6D-ROX-011712 | 1/17/2012 | | 26.33 | 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 | <0.0055 | <0.00011 | <0.00011 | <0.0055 | <0.011 | <0.0055 | <0.011 |
| | MW6D-ROX-050212 | 5/2/2012 | | 27.45 | NE | <0.0001 | <0.0001 | <0.01 | <0.0001 | <0.000052 | <0.0001 | <0.000052 | <0.0001 | <0.0001 | <0.0044 UJ | <0.01 | <0.005 | <0.002 | <0.005 | <0.01 | <0.005 | <0.0001 | <0.0001 | <0.005 | <0.01 | <0.005 | <0.01 |
| | MW6D-ROX-080212 | 8/2/2012 | | 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 | 104.72 - 109.72 | 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 |
| MW-07 | MW7-ROX-072411 | 7/24/2011 | 42.92 - 52.92 | 35.65 | NE | 0.0001 J | <0.00011 | <0.011 UJ | <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 | <0.0054 | 0.000018 J | <0.00011 | <0.0054 | <0.011 | <0.0054 | <0.011 |
| | MW-7-ROX-110211 | 11/2/2011 | | 35.95 | NE | <0.00026 U | <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 | <0.005 | <0.01 | <0.005 | <0.01 UJ |
| | MW7-ROX-011812 | 1/18/2012 | | 38.10 | NE | 0.00025 | <0.0001 | <0.01 | <0.0001 | <0.00005 | <0.000024 U | <0.00005 | <0.0001 | <0.0001 | | <0.01 UJ | <0.005 | <0.002 | 0.00049 J | <0.01 | <0.005 | <0.0001 | <0.0001 | <0.005 | <0.01 | <0.005 | <0.01 |
| | MW7-ROX-011812-DUP | 1/18/2012 | | 38.10 | NE | 0.00027 | <0.00011 | <0.011 | <0.00011 | <0.000056 | <0.00003 U | <0.000056 | <0.00011 | <0.00011 | | <0.011 UJ | <0.0056 | 0.00044 J | 0.00048 J | <0.011 | <0.0056 | <0.00011 | <0.00011 | <0.0056 | <0.011 | <0.0056 | <0.011 |
| | MW7-ROX-050412 | 5/4/2012 | | 39.19 | NE | 0.00028 | <0.0001 | <0.01 | <0.0001 | 0.00011 | <0.0001 | <0.00005 | <0.0001 | <0.0001 | <0.01 | <0.01 | <0.005 | 0.00071 J | <0.005 | <0.01 | <0.005 | <0.0001 | <0.0001 | <0.005 | <0.01 | <0.005 | <0.01 |
| | MW7-ROX-080712 | 8/7/2012 | | 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 | 42.92 - 52.92 | 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 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | SVOCs | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Acenaphthene | Acenaphthylene | Aniline | Anthracene | Benzo(a)anthracene | Benzo(e)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-08 | MW8-ROX-072411 | 7/24/2011 | 33.60 - 43.60 | 26.02 | NE | 0.00029 | <0.00011 | <0.011 UJ | 0.000067 J | 0.00013 B | 0.00016 B | 0.00016 B | 0.000048 J | 0.00017 B | <0.011 UJ | <0.011 | <0.0054 | 0.0019 J | <0.0054 | <0.011 | <0.0054 | 0.000099 JB | <0.00011 | <0.0054 | <0.011 | <0.0054 | 0.0228 |
| | MW8-ROX-072411-DUP | 7/24/2011 | | 26.02 | NE | 0.00027 | <0.00011 | <0.011 UJ | 0.000062 J | 0.00012 B | 0.00019 B | 0.00018 B | 0.000058 J | 0.00021 B | <0.011 UJ | <0.011 | <0.0055 | 0.0013 J | <0.0055 | <0.011 | <0.0055 | 0.000099 JB | <0.00011 | <0.0055 | <0.011 | <0.0055 | 0.0213 |
| | MW-8-ROX-110211 | 11/2/2011 | | 27.02 | NE | <0.00023 U | <0.000095 | <0.0095 UJ | <0.000095 | <0.000048 | <0.000095 | <0.000048 | <0.000095 | <0.000095 | <0.0095 | <0.0095 | <0.0048 | <0.0019 | <0.0048 | <0.0095 | <0.0048 | <0.000095 | <0.000095 | <0.0048 | <0.0095 | <0.0048 | 0.0383 J |
| | MW8-ROX-011812 | 1/18/2012 | | 29.15 | NE | 0.00038 J | <0.00053 | <0.011 | <0.00053 | <0.00026 | <0.00053 | <0.00026 | <0.00053 | <0.00053 | | <0.011 UJ | <0.0053 | 0.00052 J | 0.00042 J | <0.011 | <0.0053 | <0.00053 | <0.00053 | 0.0006 J | <0.011 | <0.0053 | 0.015 |
| | MW8-ROX-050412 | 5/4/2012 | | 30.21 | NE | <0.00011 | <0.00011 | <0.011 | <0.00011 | <0.000053 | <0.00011 | <0.000053 | <0.00011 | <0.00011 | 0.0204 | <0.011 | <0.0053 | 0.00053 J | <0.0053 | <0.011 | <0.0053 | <0.00011 | <0.00011 | 0.00044 J | <0.011 | <0.0053 | 0.0595 |
| | MW8-ROX-050412-DUP | 5/4/2012 | | 30.21 | NE | <0.0001 | <0.0001 | <0.01 | <0.0001 | 0.00012 | <0.0001 | <0.00005 | <0.0001 | <0.0001 | <0.01 | <0.01 | <0.005 | 0.00047 J | <0.005 | <0.01 | <0.005 | <0.0001 | <0.0001 | <0.005 | <0.01 | <0.005 | 0.0557 |
| | MW8-ROX-080712 | 8/7/2012 | | 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 | 33.60 - 43.60 | 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 |
| MW-09 | MW9-ROX-072311 | 7/23/2011 | 46.45 - 56.45 | 38.06 | NE | <0.00011 | <0.00011 | <0.011 UJ | <0.00011 | <0.00021 U | <0.00013 U | <0.00015 U | <0.000046 U | <0.00018 U | <0.01 UJ | <0.011 | <0.0054 | <0.0022 | <0.0054 | <0.01 UJ | <0.005 UJ | <0.0002 U | <0.00011 | <0.0054 | <0.01 UJ | <0.0054 | <0.01 UJ |
| | MW9-ROX-110111 | 11/1/2011 | | 37.78 | NE | <0.0001 | <0.0001 | <0.01 | <0.0001 | <0.000051 | <0.0001 | <0.000051 | <0.0001 | <0.0001 | <0.01 | <0.01 | <0.005 | <0.002 | <0.005 | <0.01 | <0.005 | <0.0001 | <0.0001 | <0.005 | <0.01 | <0.005 | <0.01 |
| | MW9-ROX-011612 | 1/16/2012 | | 39.50 | NE | <0.00011 | <0.00011 | <0.011 | <0.00011 | <0.000057 | 0.000058 J | 0.000051 J | <0.000096 U | <0.00011 | <0.011 UJ | <0.011 | <0.0057 | <0.00085 U | <0.00037 U | <0.011 | <0.0057 | <0.00011 | <0.000078 U | <0.0057 | <0.011 | <0.0057 | <0.011 |
| | MW9-ROX-050312 | 5/3/2012 | | 41.03 | NE | | | | | | | | | | | | | 0.0016 J J | 0.00045 JB J | | | | | | | | |
| | MW9-ROX-072712 | 7/27/2012 | | 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 | 46.45 - 56.45 | 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 |
| MW-10 | MW10-ROX-072311 | 7/23/2011 | 44.43 - 54.43 | 38.01 | NE | <0.0001 | <0.0001 | <0.01 UJ | <0.0001 | <0.00025 U | <0.00013 U | <0.00014 U | <0.000039 U | <0.00017 U | <0.01 UJ | <0.01 | <0.005 | <0.002 | <0.005 | <0.01 | <0.005 | <0.00027 U | <0.0001 | <0.005 | <0.01 | <0.005 | <0.01 |
| | MW10-ROX-110111 | 11/1/2011 | | 37.72 | 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 | <0.005 | <0.01 | <0.005 | <0.01 |
| | MW10-ROX-011612 | 1/16/2012 | | 39.28 | NE | <0.00011 | <0.00011 | <0.011 | 0.000027 J | 0.000037 J | 0.000031 J | 0.000043 J | <0.000042 U | <0.00011 | <0.011 UJ | <0.011 | <0.0053 | 0.0255 | <0.0013 U | <0.011 | <0.0053 | <0.00011 | <0.00011 | <0.0053 | <0.011 | <0.0053 | <0.011 |
| | MW10-ROX-050112 | 5/1/2012 | | 40.86 | NE | <0.0001 | <0.0001 | <0.01 UJ | 0.000018 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 | <0.0052 | <0.01 | <0.0052 | <0.01 |
| | MW10-ROX-072712 | 7/27/2012 | | 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 | 44.43 - 54.43 | 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 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | SVOCs | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Acenaphthene | Acenaphthylene | Aniline | Anthracene | Benzo(a)anthracene | Benzo(e)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-11 | MW11-ROX-072411 | 7/24/2011 | 41.66 - 51.66 | 34.3 | NE | <0.00011 | <0.00011 | <0.011 UJ | <0.00011 | 0.00013 B | 0.00012 B | 0.00013 B | 0.000035 J | 0.00014 B | <0.011 UJ | <0.011 | <0.0056 | <0.0022 | <0.0056 | <0.011 | <0.0056 | 0.00013 B | <0.00011 | <0.0056 | <0.011 | <0.0056 | <0.011 |
| | MW-11-ROX-110211 | 11/2/2011 | | 35.44 | 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 | <0.0054 | <0.011 | <0.0054 | <0.011 UJ |
| | MW11-ROX-011712 | 1/17/2012 | | 37.44 | NE | | | | 0.000022 J J | | | | | 0.000065 J J | | | | | | | | | | | | | |
| | MW11-ROX-043012 | 4/30/2012 | | 38.66 | 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 | <0.002 | <0.0051 | <0.01 | <0.0051 | <0.0001 | <0.0001 | <0.0051 | <0.01 | <0.0051 | <0.01 |
| | MW11-ROX-072712 | 7/27/2012 | | 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 | 41.66 - 51.66 | 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 |
| MW-12 | MW12-ROX-072411 | 7/24/2011 | 41.92 - 51.92 | 35.55 | NE | <0.0001 | <0.0001 | <0.01 UJ | <0.0001 | 0.000072 B | 0.00014 B | 0.00014 B | 0.000053 J | 0.00019 B | <0.01 UJ | <0.01 | <0.005 | <0.002 | <0.005 | <0.01 UJ | <0.005 UJ | 0.000072 JB | 0.000031 JB | <0.005 | <0.01 UJ | <0.005 | <0.01 UJ |
| | MW-12-ROX-110211 | 11/2/2011 | | 35.70 | NE | <0.000095 | <0.000095 | <0.0095 UJ | <0.000095 | <0.000048 | <0.000095 | <0.000048 | <0.000095 | <0.000095 | <0.0095 | <0.0095 | <0.0048 | <0.0019 | <0.0048 | <0.0095 | <0.0048 | <0.000095 | <0.000095 | <0.0048 | <0.0095 | <0.0048 | <0.0095 UJ |
| | MW-12-ROX-110211-DUP | 11/2/2011 | | 35.70 | NE | <0.000095 | <0.000095 | <0.0095 UJ | <0.000095 | <0.000048 | <0.000095 | <0.000048 | <0.000095 | <0.000095 | <0.0095 | <0.0095 | <0.0048 | <0.0019 | <0.0048 | <0.0095 | <0.0048 | <0.000095 | <0.000095 | <0.0048 | <0.0095 | <0.0048 | <0.0095 UJ |
| | MW12-ROX-011712 | 1/17/2012 | | 37.70 | NE | <0.00011 | <0.00011 | <0.011 | <0.00011 | <0.000054 | <0.00016 U | <0.00013 U | <0.00021 U | 0.00013 | <0.011 UJ | <0.011 | <0.0054 | <0.0022 | <0.00029 U | <0.011 | <0.0054 | <0.00011 | <0.00021 U | <0.0054 | <0.011 | <0.0054 | <0.011 |
| | MW12-ROX-011712-DUP | 1/17/2012 | | 37.70 | NE | <0.00011 | <0.00011 | <0.011 | <0.00011 | <0.000056 | <0.000039 U | <0.00004 U | <0.000067 U | <0.00011 | <0.011 UJ | <0.011 | <0.0056 | <0.0022 | <0.00033 U | <0.011 | <0.0056 | <0.00011 | <0.000051 U | <0.0056 | <0.011 | <0.0056 | <0.011 |
| | MW12-ROX-043012 | 4/30/2012 | | 38.98 | 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 | <0.002 | <0.0051 | <0.01 | <0.0051 | <0.0001 | <0.0001 | <0.0051 | <0.01 | <0.0051 | <0.01 |
| | MW12-ROX-072712 | 7/27/2012 | | 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 | 41.92 - 51.92 | 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 |
| MW-13 | MW13-ROX-080311 | 8/3/2011 | 25.57 - 35.57 | 21.67 | NE | <0.0001 | <0.0001 | <0.01 | 0.00011 | 0.000037 J | 0.000039 J | 0.000037 J | 0.000053 J | 0.000036 J | <0.01 UJ | <0.01 | <0.005 | <0.002 | <0.005 | <0.01 | <0.005 | 0.000036 J | <0.0001 | <0.005 | <0.01 | <0.005 | <0.01 |
| | MW13-ROX-110311 | 11/3/2011 | | 22.85 | 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 | <0.0056 | <0.011 | <0.0056 | <0.011 UJ |
| | MW13-ROX-012012 | 1/20/2012 | | 24.77 | NE | <0.00011 | 0.00014 | <0.011 UJ | <0.00011 | <0.000053 | <0.00011 | <0.000053 | <0.00011 | <0.00011 | 0.0087 J J | <0.011 | <0.0053 | <0.0007 U | <0.0007 U | <0.011 | <0.0053 | <0.00011 | <0.00011 | <0.0053 | <0.011 | <0.0053 | <0.011 |
| | MW13-ROX-050712 | 5/7/2012 | | 25.79 | 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 | <0.0052 | <0.01 | <0.0052 | <0.01 |
| | MW13-ROX-080812 | 8/8/2012 | | 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 | 25.57 - 35.57 | 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 |
| MW-14 | MW14-ROX-110911 | 11/9/2011 | 33.42 - 43.42 | | | <0.00011 | <0.00011 UJ | <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 | <0.0053 | <0.011 | <0.0053 | <0.011 |
| | MW14-ROX-051012 | 5/10/2012 | | NM | NE | 0.00046 | <0.0001 | <0.01 | <0.0001 | <0.000052 | <0.0001 | <0.000052 | <0.0001 | <0.0001 | <0.01 | <0.01 | <0.0052 | <0.00042 U | <0.0052 | <0.01 | <0.0052 | <0.0001 | <0.0001 | <0.0052 | 0.00084 J | <0.0052 | <0.01 |
| | MW14-ROX-080312 | 8/3/2012 | | 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 | 33.42 - 43.42 | 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 |
| 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 | 37.06 - 47.06 | 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 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | SVOCs | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Acenaphthene | Acenaphthylene | Aniline | Anthracene | Benzo(a)anthracene | Benzo(e)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-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 | 37.88 - 47.88 | 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 |
| 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 | 38.89 - 48.89 | 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 |
| P-54 | P54-ROX-072411 | 7/24/2011 | 38.00 - 63.00 | 35.38 | NE | <0.0001 | <0.0001 | <0.01 UJ | <0.0001 | 0.000079 B | 0.00014 B | 0.00015 B | 0.000053 J | 0.00017 B | <0.01 UJ | <0.01 | <0.005 | <0.002 | <0.005 | <0.01 | <0.005 | 0.000081 JB | 0.00002 JB | <0.005 | <0.01 | <0.005 | <0.01 |
| | P54-ROX-110311 | 11/3/2011 | | 35.49 | NE | <0.0001 | <0.0001 | <0.01 UJ | <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 | <0.005 | <0.01 | <0.005 | <0.01 |
| | P54-ROX-011712 | 1/17/2012 | | 37.17 | NE | <0.0001 | <0.0001 | <0.01 | <0.0001 | <0.000052 | <0.000024 U | <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 | <0.0052 | <0.01 | <0.0052 | <0.01 |
| | P54-ROX-050412 | 5/4/2012 | | 38.77 | NE | <0.0001 | <0.0001 | <0.01 | <0.0001 | <0.000051 | <0.0001 | <0.000051 | <0.0001 | <0.0001 | 0.0045 J | <0.01 | <0.0051 | 0.0133 | <0.0051 | <0.01 | <0.0051 | <0.0001 | <0.0001 | <0.0051 | <0.01 | <0.0051 | <0.01 |
| | P54-ROX-080212 | 8/2/2012 | | 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 | 38.00 - 63.00 | 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 |
| P-55 | P55-ROX-103111 | 10/31/2011 | 39.82 - 64.82 | 39.15 | 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 | 0.0022 | <0.005 | <0.01 | <0.005 | <0.0001 | <0.0001 | <0.005 | <0.01 | <0.005 | <0.01 |
| | P55-ROX-011912 | 1/19/2012 | | 41.09 | NE | 0.00017 | <0.0001 | <0.01 | <0.0001 | <0.000052 | 0.000022 J | <0.000052 | <0.0001 | <0.0001 | | <0.01 UJ | <0.0052 | <0.0021 | <0.00048 U | <0.01 | <0.0052 | <0.0001 | <0.0001 | 0.00035 J | <0.01 | <0.0052 | <0.01 |
| | P55-ROX-011912-D | 1/19/2012 | | 41.09 | NE | 0.00015 | <0.00011 | <0.011 | <0.00011 | <0.000054 | 0.000067 J | 0.000061 | 0.00011 | 0.000071 J | | <0.011 UJ | <0.0054 | <0.0022 | <0.00035 U | <0.011 | <0.0054 | <0.00011 | 0.000086 J | 0.00033 J | <0.011 | <0.0054 | <0.011 |
| | P55-ROX-050912 | 5/9/2012 | | 42.44 | NE | 0.00036 | 0.000095 J | <0.01 | <0.0001 | <0.00005 | <0.0001 | <0.00005 | <0.0001 | <0.0001 | <0.01 | <0.01 | <0.0051 | <0.002 | <0.0051 | <0.01 | <0.0051 | <0.0001 | <0.0001 | <0.0051 | <0.01 | <0.0051 | <0.01 |
| | 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 |
| P-56 | P56-ROX-102711 | 10/27/2011 | 40.82 - 65.82 | 39.42 | NE | 0.0007 | 0.00013 | <0.01 UJ | 0.00013 | <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 | <0.0052 | <0.01 | <0.0052 | <0.01 |
| | P56-ROX-011912 | 1/19/2012 | | 41.81 | NE | 0.00064 | <0.0001 | <0.01 | 0.00011 | <0.000051 | 0.000021 J | <0.000051 | <0.0001 | <0.0001 | | <0.01 UJ | <0.0051 | <0.00066 U | <0.00053 U | <0.01 | <0.0051 | <0.0001 | <0.0001 | 0.00064 J | <0.01 | <0.0051 | <0.01 |
| | P56-ROX-050812 | 5/8/2012 | | 43.09 | NE | 0.00057 | 0.0001 | <0.01 | <0.0001 | <0.00011 U | <0.00012 U | <0.000052 | <0.0001 | <0.0001 | <0.01 | <0.01 | <0.0052 | <0.0021 | <0.0052 | <0.01 | <0.0052 | <0.0001 | <0.0001 | <0.0052 | <0.01 | <0.0052 | <0.01 |
| | P56-ROX-080612 | 8/6/2012 | | 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 | 40.82 - 65.82 | 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 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | SVOCs | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Acenaphthene | Acenaphthylene | Aniline | Anthracene | Benzo(a)anthracene | Benzo(e)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-57 | P57-ROX-110811 | 11/8/2011 | 40.46 - 65.46 | 39.20 | NE | 0.00055 | <0.00054 | <0.011 UJ | <0.00054 | <0.00027 | <0.00054 | <0.00027 | <0.00054 | <0.00054 | <0.011 | <0.011 | <0.0054 | 0.0022 | <0.0054 | <0.011 | <0.0054 | <0.00054 | <0.00054 | <0.0054 | <0.011 | <0.0054 | <0.011 |
| | P57-ROX-021312 | 2/13/2012 | | 42.13 | NE | 0.00056 | <0.0001 | <0.01 | <0.0001 | <0.000051 | <0.0001 | <0.000051 | <0.0001 | <0.0001 | <0.01 | <0.01 | <0.0051 | 0.00043 J | <0.00043 U | <0.01 | <0.0051 | <0.0001 | <0.0001 | 0.00087 J | <0.01 | <0.0051 | 0.0045 J |
| | P57-ROX-050712 | 5/7/2012 | | 42.92 | NE | 0.00033 | <0.0001 | <0.01 | <0.0001 | 0.00011 | 0.00012 | <0.000052 | <0.0001 | <0.0001 | <0.01 | <0.01 | 0.0008 J | <0.0021 | <0.0052 | <0.01 | <0.0052 | <0.0001 | <0.0001 | <0.0052 | <0.01 | <0.0052 | <0.01 |
| | P57-ROX-080612 | 8/6/2012 | | 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 | 40.46 - 65.46 | 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 |
| P-58 | P58-ROX-102811 | 10/28/2011 | 40.21 - 65.21 | 37.31 | NE | 0.0011 | <0.000097 | <0.0097 UJ | <0.000097 | <0.000049 | <0.000097 | <0.000049 | <0.000097 | <0.000097 | <0.0097 | <0.0097 | <0.0049 | 0.003 | <0.0049 | <0.0097 | <0.0049 | <0.000097 | <0.000097 | <0.0049 | <0.0097 | <0.0049 | <0.0097 |
| | P58-ROX-011912 | 1/19/2012 | | 39.73 | NE | 0.001 | <0.00011 | <0.011 | <0.00011 | 0.000039 J | 0.000051 J | 0.000032 J | 0.000047 J | <0.00011 | | <0.011 UJ | <0.0053 | 0.0361 J | <0.00059 U | <0.011 | <0.0053 | <0.00011 | <0.00011 | 0.0026 J | <0.011 | <0.0053 | <0.011 |
| | P58-ROX-011912-D | 1/19/2012 | | 39.73 | NE | 0.00092 | <0.00011 | <0.011 | <0.00011 | 0.000036 J | 0.000036 J | <0.000053 | <0.00011 | <0.00011 | | <0.011 UJ | <0.0053 | 0.024 J | <0.0053 | <0.011 | <0.0053 | <0.00011 | <0.00011 | 0.0023 J | <0.011 | <0.0053 | <0.011 |
| | P58-ROX-050712 | 5/7/2012 | | 40.90 | NE | 0.00059 | 0.00019 | <0.01 | 0.00057 J | 0.00017 | <0.0001 | <0.00051 | <0.0001 | <0.0001 | <0.01 | <0.01 | <0.0051 | <0.002 | <0.0051 | <0.01 | <0.0051 | <0.0001 | <0.0001 | 0.0017 J | <0.01 | <0.0051 | <0.01 |
| | P58-ROX-050712-DUP | 5/7/2012 | | 40.90 | NE | 0.00044 | 0.00015 | <0.01 | <0.0001 UJ | 0.00015 | 0.000032 J | <0.000052 | <0.0001 | <0.0001 | <0.01 | <0.01 | <0.0052 | <0.0021 | <0.0052 | <0.01 | <0.0052 | <0.0001 | <0.0001 | <0.0052 | <0.01 | <0.0052 | <0.01 |
| | P58-ROX-080612 | 8/6/2012 | | 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 | 40.21 - 65.21 | 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 |
| P-59 | P59-ROX-102711 | 10/27/2011 | 47.91 - 72.91 | 41.06 | NE | 0.00077 | 0.00012 | <0.011 UJ | 0.00046 | 0.00019 | <0.00011 | 0.000073 | <0.00011 | <0.00011 | <0.011 | <0.011 | <0.0053 | 0.0028 | <0.0053 | <0.011 | <0.0053 | 0.00034 | <0.00011 | <0.0053 | <0.011 | <0.0053 | <0.011 |
| | P59-ROX-011912 | 1/19/2012 | | 42.88 | NE | 0.00036 | <0.00011 | <0.011 | 0.00025 | 0.000055 J | 0.000038 J | 0.000037 J | 0.000052 J | <0.00011 | | 0.0011 J | <0.0057 | <0.00079 U | <0.0011 U | <0.011 | <0.0057 | 0.000085 J | <0.00011 | <0.0057 | <0.011 | <0.0057 | 0.0133 |
| | P59-ROX-011912-DUP | 1/19/2012 | | 42.88 | NE | 0.00037 | <0.0001 | <0.01 | 0.00015 | 0.00005 J | 0.000029 J | 0.000027 J | <0.0001 | <0.0001 | | 0.00091 J | <0.0051 | <0.002 | <0.00061 U | <0.01 | <0.0051 | 0.000074 J | <0.0001 | 0.00042 J | <0.01 | <0.0051 | 0.0108 |
| | P59-ROX-050912 | 5/9/2012 | | 44.11 | NE | 0.00022 | <0.0001 | <0.01 | 0.000095 J | <0.00005 | <0.0001 | <0.00005 | <0.0001 | <0.0001 | 0.0161 | <0.01 | <0.005 | <0.002 | <0.005 | <0.01 | <0.005 | <0.0001 | <0.0001 | <0.005 | <0.01 | <0.005 | 0.0085 J |
| | P59-ROX-080212 | 8/2/2012 | | 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 | 47.91 - 72.91 | 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 |
| P-66 | P66-ROX-110111 | 11/1/2011 | 34.72 - 59.72 | 28.92 | NE | 0.0018 | <0.0001 | <0.01 | <0.0001 | <0.000095 U | <0.0001 | <0.000088 U | <0.0001 | <0.0001 | <0.01 | <0.01 | <0.005 | <0.002 | <0.005 | <0.01 | <0.005 | <0.00011 U | <0.0001 | <0.005 | <0.01 | <0.005 | <0.01 |
| | P66-ROX-051012 | 5/10/2012 | | 32.48 | NE | 0.00078 | <0.0001 | <0.01 | <0.0001 | <0.00005 | <0.0001 | 0.000024 J | <0.0001 | <0.0001 | <0.01 | <0.01 | <0.005 | <0.00053 U | <0.005 | <0.01 | <0.005 | <0.0001 | <0.0001 | 0.0018 J | <0.01 | <0.005 | <0.01 |
| | P66-ROX-080312 | 8/3/2012 | | 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 | 34.72 - 59.72 | 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 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | SVOCs | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Acenaphthene | Acenaphthylene | Aniline | Anthracene | Benzo(a)anthracene | Benzo(e)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-74 | P74-ROX-103111 | 10/31/2011 | 44.43 - 69.43 | 36.26 | NE | 0.00033 | 0.00012 | <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 | <0.005 | <0.01 | <0.005 | <0.01 |
| | P74-ROX-011912 | 1/19/2012 | | 38.77 | NE | <0.000095 | <0.000095 | <0.0095 | <0.000095 | <0.000048 | <0.000095 | <0.000048 | <0.000095 | <0.000095 | | <0.0095 UJ | <0.0048 | <0.0019 | <0.00043 U | <0.0095 | <0.0048 | <0.000095 | <0.000095 | <0.0048 | <0.0095 | <0.0048 | <0.0095 |
| | P74-ROX-050712 | 5/7/2012 | | 39.92 | NE | <0.0001 | <0.0001 | <0.01 | <0.0001 | 0.00012 | <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 | <0.0052 | <0.01 | <0.0052 | <0.01 |
| | P74-ROX-080612 | 8/6/2012 | | 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 | 44.43 - 69.43 | 44.74 | NE | <0.00012 | <0.00012 | <0.012 | <0.00012 | <0.00059 | <0.00012 | <0.00059 | <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 |
| P-93A | P93A-ROX-081811 | 8/18/2011 | 48.17 - 63.17 | 39.40 | NE | 0.00036 | <0.0001 | <0.01 | 0.000058 J | <0.00005 | <0.0001 | <0.00005 | <0.0001 | <0.0001 | <0.01 | <0.01 | <0.005 | 0.003 | <0.005 | <0.01 | <0.005 | <0.0001 | <0.0001 | <0.005 | <0.01 | <0.0029 U | <0.01 |
| | P93A-ROX-102611 | 10/26/2011 | | 39.43 | NE | 0.00024 | <0.0001 | <0.01 UJ | <0.0001 | <0.00005 | <0.0001 | <0.00005 | <0.0001 | <0.0001 | <0.01 | <0.01 | <0.005 | 0.0075 | <0.005 | <0.01 | <0.005 | <0.0001 | <0.0001 | <0.005 | <0.01 | <0.005 | <0.01 |
| | P93A-ROX-012012 | 1/20/2012 | | 41.66 | NE | 0.00014 | <0.000095 | <0.0095 UJ | 0.000032 J | <0.000048 | <0.000095 | <0.000048 | <0.000095 | <0.000095 | <0.0095 UJ | <0.0095 | <0.0048 | <0.006 U | <0.00053 U | <0.0095 | <0.0048 | <0.000095 | <0.000095 | <0.0048 | <0.0095 | <0.0048 | <0.0095 |
| | P93A-ROX-050812 | 5/8/2012 | | 42.75 | NE | <0.0001 | <0.0001 | <0.01 | <0.0001 | <0.0001 U | <0.00012 U | <0.000051 | <0.0001 | <0.0001 | <0.01 | <0.01 | <0.0051 | 0.0029 | <0.0051 | <0.01 | <0.0051 | <0.0001 | <0.0001 | <0.0051 | <0.01 | <0.0051 | <0.01 |
| | P93A-ROX-080912 | 8/9/2012 | | 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 | 48.17 - 63.17 | 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 |
| P-93B | P93B-ROX-081811 | 8/18/2011 | 74.60 - 76.60 | 39.44 | 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 | 0.001 J | <0.0052 | <0.01 | <0.0052 | <0.0001 | <0.0001 | <0.0052 | <0.01 | <0.0021 U | <0.01 |
| | P93B-ROX-102611 | 10/26/2011 | | 39.48 | 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 | 0.0103 | <0.0052 | <0.01 | <0.0052 | <0.0001 | <0.0001 | <0.0052 | <0.01 | <0.0052 | <0.01 |
| | P93B-ROX-012012 | 1/20/2012 | | 41.72 | NE | <0.000095 | 0.000028 J | <0.0095 UJ | <0.000095 | <0.000048 | <0.000095 | <0.000048 | <0.000095 | <0.000095 | <0.0095 UJ | <0.0095 | <0.0048 | <0.0033 U | <0.00033 U | <0.0095 | <0.0048 | <0.000095 | <0.000095 | <0.0048 | <0.0095 | <0.0048 | <0.0095 |
| | P93B-ROX-050812 | 5/8/2012 | | 42.79 | NE | <0.0001 | <0.0001 | <0.01 | <0.0001 | <0.000051 | <0.0002 U | <0.000051 | <0.0001 | <0.0001 | <0.01 | <0.01 | <0.0051 | <0.002 | <0.0051 | <0.01 | <0.0051 | <0.0001 | <0.0001 | <0.0051 | <0.01 | <0.0051 | <0.01 |
| | P93B-ROX-080912 | 8/9/2012 | | 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 | 74.60 - 76.60 | 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 |
| P-93C | P93C-ROX-081811 | 8/18/2011 | 94.26 - 96.26 | 39.32 | 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 | 0.0092 | <0.005 | <0.01 | <0.005 | <0.0001 | <0.0001 | <0.005 | <0.01 | <0.0015 U | <0.01 |
| | P93C-ROX-102611 | 10/26/2011 | | 39.36 | 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 | <0.0052 | <0.01 | <0.0052 | <0.01 |
| | P93C-ROX-012012 | 1/20/2012 | | 41.57 | NE | <0.0001 | <0.0001 | <0.01 UJ | <0.0001 | <0.000051 | 0.000019 J | 0.000027 J | <0.0001 | <0.0001 | <0.01 UJ | <0.01 | <0.0051 | <0.0096 U | <0.00037 U | <0.01 | <0.0051 | <0.0001 | <0.0001 | <0.0051 | <0.01 | <0.0051 | <0.01 |
| | P93C-ROX-050812 | 5/8/2012 | | 42.68 | NE | <0.00011 | <0.00011 | <0.011 | <0.00011 | <0.00012 U | <0.00011 | <0.000053 | <0.00011 | <0.00011 | <0.011 | <0.011 | <0.0053 | 0.008 | <0.0053 | <0.011 | <0.0053 | <0.00011 | <0.00011 | <0.0053 | <0.011 | <0.0053 | <0.011 |
| | P93C-ROX-080912 | 8/9/2012 | | 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 | 94.26 - 96.26 | 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 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | SVOCs | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Acenaphthene | Acenaphthylene | Aniline | Anthracene | Benzo(a)anthracene | Benzo(e)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-93D | P93D-ROX-081811 | 8/18/2011 | 125.75 - 127.75 | 39.46 | 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 | <0.000015 U | <0.0001 | <0.005 | <0.01 | <0.0018 U | <0.01 |
| | P93D-ROX-102711 | 10/27/2011 | | 39.59 | 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 | <0.005 | <0.01 | <0.005 | <0.01 |
| | P93D-ROX-012012 | 1/20/2012 | | 41.77 | NE | <0.00011 | <0.00011 | <0.011 UJ | <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 | <0.0054 | <0.00011 | <0.00011 | <0.0054 | <0.011 | <0.0054 | <0.011 |
| | P93D-ROX-050812 | 5/8/2012 | | 42.96 | NE | <0.0001 | <0.0001 | <0.01 | <0.0001 | <0.0001 U | <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 | <0.0051 | <0.01 | <0.0051 | <0.01 |
| | P93D-ROX-080812 | 8/8/2012 | | 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 | 125.75 - 127.75 | 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 |
| P-114 | P114-ROX-102811 | 10/28/2011 | 32.67 - 52.67 | 24.73 | NE | <0.000095 | <0.000095 | <0.0095 UJ | <0.000095 | <0.000048 | <0.000095 | <0.000048 | <0.000095 | <0.000095 | <0.0095 | <0.0095 | <0.0048 | 0.0053 | <0.0048 | <0.0095 | <0.0048 | <0.000095 | <0.000095 | <0.0048 | <0.0095 | <0.0048 | <0.0095 |
| | P114-ROX-012012 | 1/20/2012 | | 27.17 | NE | <0.0001 | <0.0001 | <0.01 UJ | <0.0001 | <0.0001 | 0.000055 J | 0.00005 J | 0.000058 J | <0.0001 | <0.01 UJ | <0.01 | <0.0051 | <0.0013 U | <0.00044 U | <0.01 | <0.0051 | <0.0001 | 0.000053 J | <0.0051 | <0.01 | <0.0051 | <0.01 |
| | P114-ROX-050912 | 5/9/2012 | | 28.09 | NE | <0.0001 | <0.0001 | <0.01 | <0.0001 | <0.00005 | <0.0001 | <0.00005 | <0.0001 | <0.0001 | <0.01 | <0.01 | <0.0052 | 0.0015 J | <0.0052 | <0.01 | <0.0052 | <0.0001 | <0.0001 | <0.0052 | <0.01 | <0.0052 | <0.01 |
| | P114-ROX-080912 | 8/9/2012 | | 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 | 32.67 - 52.67 | 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 |
| ROST-3-PZ | ROST3PZ-ROX-051412 | 5/14/2012 | 40.00 - 50.00 | 38.82 | NE | 0.000023 J | <0.0001 | <0.01 | <0.0001 | <0.000052 | <0.0001 | <0.000052 | <0.0001 | <0.0001 | <0.01 | <0.01 | <0.0052 | 0.00065 J | <0.0052 | <0.01 | <0.0052 | <0.0001 | <0.0001 | <0.0052 | <0.01 | <0.0052 | <0.01 |
| | ROST3PZ-ROX-080712 | 8/7/2012 | | 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 |
| ROST-3-MW | 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 | | | | 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 | 37.81 - 47.81 | 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 |
| ROST-4-PZ(C) | ROST4PZ-C-051412 | 5/14/2012 | 34.95 - 44.95 | 39.04 | NE | 0.00027 | 0.000072 J | <0.01 | 0.00011 | <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 | 0.00027 J | <0.01 | <0.005 | <0.01 |
| | ROST4PZ-C-ROX-072512 | 7/25/2012 | | 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 | 34.95 - 44.95 | 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 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | SVOCs | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Acenaphthene | Acenaphthylene | Aniline | Anthracene | Benzo(a)anthracene | Benzo(e)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) | | | | | | | | | | | | | | | | | | | | | |
| T-12 | T12-ROX-102711 | 10/27/2011 | 46.72 - 72.72 | 38.54 | NE | 0.00079 | 0.00012 | <0.01 UJ | 0.00017 | <0.000051 | <0.0001 | <0.000051 | <0.0001 | <0.0001 | <0.01 | <0.01 | <0.0051 | 0.0025 | <0.0051 | <0.01 | <0.0051 | <0.0001 | <0.0001 | <0.0051 | <0.01 | <0.0051 | 0.0109 |
| | T12-ROX-011912 | 1/19/2012 | | 41.0 | NE | 0.00047 | <0.00011 | <0.011 | 0.00014 | <0.000056 | 0.000032 J | 0.000035 J | 0.000069 J | <0.00011 | | <0.011 UJ | <0.0056 | <0.0017 U | <0.00062 U | <0.011 | <0.0056 | <0.00011 | 0.00005 J | 0.00029 J | <0.011 | <0.0056 | 0.0095 J |
| | T12-ROX-050912 | 5/9/2012 | | 42.62 | NE | 0.00032 | <0.0001 | <0.01 | 0.000081 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 | <0.005 | <0.01 | <0.005 | <0.01 |
| | T12-ROX-080212 | 8/2/2012 | | 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 - 72.72 | 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 |

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | SVOCs | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Dimethyl phthalate | Di-n-butyl phthalate | Di-n-octyl phthalate | 2,6-Dinitrotoluene | Fluoranthene | Fluorene | Hexachlorobenzene | Indene[6] | 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-072711 | 7/27/2011 | 43.41 - 58.41 | 35.77 | 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 |
| | MW1-ROX-120511 | 12/5/2011 | | 37.10 | 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 |
| | MW1-ROX-011612 | 1/16/2012 | 48.80 - 58.80 | 37.75 | NE | <0.0051 | <0.0051 | <0.0051 | <0.01 | 0.00011 | 0.000059 J | <0.0051 | | <0.00012 U | <0.0051 | <0.0002 | 0.000098 J | <0.01 | <0.01 | <0.01 | <0.0051 | <0.0051 | <0.0051 | <0.01 | 0.000098 | <0.0051 | 0.00009 J |
| | MW1-ROX-050112 | 5/1/2012 | | 39.09 | NE | <0.0051 | <0.00054 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 UJ | <0.0051 | <0.01 | <0.000051 | <0.0051 UJ | <0.0001 |
| | MW1-ROX-073012 | 7/30/2012 | | 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 | 48.80 - 58.80 | 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 |
| MW-02 | MW2-ROX-072711 | 7/27/2011 | 47.19 - 62.19 | 37.04 | NE | <0.005 | <0.005 | <0.005 | <0.01 | <0.0001 | <0.0001 | <0.005 | | <0.0001 | <0.005 | 0.0098 | 0.0167 | <0.01 | 0.0193 J | <0.01 | <0.005 | <0.005 | <0.005 | <0.01 | <0.00005 | 0.0086 | <0.0001 |
| | MW2-ROX-072711-DUP | 7/27/2011 | | 37.04 | NE | <0.005 | <0.005 | <0.005 | <0.01 | <0.0001 | <0.0001 | <0.005 | | <0.0001 | <0.005 | 0.0096 | 0.0169 | <0.01 | 0.0144 J | <0.01 | <0.005 | <0.005 | <0.005 | <0.01 | <0.00005 | 0.0075 | <0.0001 |
| | MW2-ROX-112811 | 11/28/2011 | 49.87 - 59.87 | 38.03 | NE | <0.005 | <0.005 | <0.005 | <0.01 | <0.0001 | <0.0001 | <0.005 | | <0.0001 | <0.005 | 0.0141 | 0.0299 | <0.01 | <0.01 | <0.01 | <0.005 | <0.005 UJ | <0.005 | <0.01 | <0.00005 | <0.005 UJ | <0.0001 |
| | MW2-ROX-011612 | 1/16/2012 | | 38.89 | NE | <0.0053 | 0.00056 J | <0.0053 | <0.011 | <0.00011 | 0.000052 J | <0.0053 | | <0.000054 U | <0.0053 | 0.0107 | 0.0229 | <0.011 | <0.011 | <0.011 | <0.0053 | <0.0053 | <0.0053 | <0.011 | 0.000066 | <0.0053 | <0.00011 |
| | MW2-ROX-050112 | 5/1/2012 | | 40.25 | NE | <0.0052 | <0.0005 U | <0.0052 | <0.01 | <0.0001 | <0.0001 | <0.0052 | | <0.0001 | <0.0052 | 0.0105 | 0.021 | <0.01 | <0.01 | <0.01 | <0.0052 | <0.0052 UJ | <0.0052 | <0.01 | <0.000052 | <0.0052 UJ | <0.0001 |
| | MW2-ROX-073012 | 7/30/2012 | | 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 | 49.87 - 59.87 | 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 |
| MW-03 | MW3-ROX-080311 | 8/3/2011 | 30.98 - 45.98 | 22.72 | NE | <0.0048 | <0.00061 U | <0.0048 | <0.0095 | <0.000095 | <0.000095 | <0.0048 | | <0.000095 | <0.0048 | 0.00029 | 0.00017 J | <0.0095 | <0.0095 | <0.0095 | <0.0048 | <0.0048 | <0.0048 | <0.0095 | <0.000048 | <0.0048 UJ | <0.000095 |
| | MW3-ROX-112911 | 11/29/2011 | 34.67 - 44.67 | 24.06 | 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 |
| | MW3-ROX-112911-DUP | 11/29/2011 | | 24.06 | 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 |
| | MW3-ROX-011612 | 1/16/2012 | | 24.93 | NE | <0.0052 | <0.0052 | <0.0052 | <0.01 | 0.000098 J | <0.0001 | <0.0052 | | <0.00015 U | <0.0052 | <0.00021 | 0.00015 J | <0.01 | <0.01 | <0.01 | <0.0052 | <0.0052 | <0.0052 | <0.01 | 0.000095 | <0.0052 | 0.000078 J |
| | MW3-ROX-043012 | 4/30/2012 | | 26.19 | NE | <0.0052 | <0.00047 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 | <0.0001 |
| | MW3-ROX-072712 | 7/27/2012 | | 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 | 34.67 - 44.67 | 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 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | SVOCs | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Dimethyl phthalate | Di-n-butyl phthalate | Di-n-octyl phthalate | 2,6-Dinitrotoluene | Fluoranthene | Fluorene | Hexachlorobenzene | Indene[6] | 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-072611 | 7/26/2011 | 42.63 - 57.63 | 34.15 | NE | <0.005 | <0.005 | <0.005 | <0.01 | <0.0001 | <0.0001 | <0.005 | | <0.0001 | <0.005 | 0.00044 | 0.00029 | <0.01 | <0.01 | <0.01 | <0.005 | <0.005 | <0.005 | <0.01 | <0.00005 | <0.005 | <0.0001 |
| | MW4-ROX-072611-DUP | 7/26/2011 | | 34.15 | NE | <0.005 | <0.005 | <0.005 | <0.01 | <0.0001 | <0.0001 | <0.005 | | <0.0001 | <0.005 | 0.00031 | 0.0002 | <0.01 | <0.01 | <0.01 | <0.005 | <0.005 | <0.005 | <0.01 | <0.00005 | <0.005 | <0.0001 |
| | MW4-ROX-121511 | 12/15/2011 | | 33.99 | NE | <0.0052 | <0.0052 | <0.0052 | <0.01 | <0.0001 | <0.0001 | <0.0052 | | <0.00043 U | <0.0052 | 0.00028 | 0.00026 | <0.01 | <0.01 | <0.01 | <0.0052 | <0.0052 | <0.0052 | <0.01 | <0.000052 | <0.0052 | <0.0001 |
| | MW4-ROX-011612 | 1/16/2012 | 46.06 - 56.06 | 36.00 | NE | <0.0052 | 0.00077 J | <0.0052 | <0.01 | 0.000047 J | <0.0001 | <0.0052 | | <0.00018 U | <0.0052 | 0.0006 | 0.00059 | <0.01 | <0.01 | <0.01 | <0.0052 | <0.0052 | <0.0052 | <0.01 | 0.000057 | <0.0052 | 0.000065 J |
| | MW4-ROX-050312 | 5/3/2012 | | 37.45 | NE | <0.005 | <0.00062 U | <0.005 | <0.01 | <0.0001 | <0.0001 | <0.005 | | <0.0001 | <0.005 | 0.00032 | 0.00025 | <0.01 | <0.01 | <0.01 | <0.005 | <0.005 | <0.005 | <0.01 | <0.00005 | <0.005 | <0.0001 |
| | MW4-ROX-050312-DUP | 5/3/2012 | | 37.45 | NE | <0.0051 | <0.00061 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 | <0.0051 | <0.0001 |
| | MW4-ROX-072512 | 7/25/2012 | | 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 | 46.06 - 56.06 | 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 |
| MW-05 | MW5-ROX-072611 | 7/26/2011 | 31.13 - 46.13 | 22.00 | NE | <0.005 | <0.005 | <0.005 | <0.01 | <0.0001 | <0.0001 | <0.005 | | <0.0001 | <0.005 | 0.00056 | <0.0002 | <0.01 | <0.01 | <0.01 | <0.005 | <0.005 | <0.005 | <0.01 | <0.00005 | <0.005 | <0.0001 |
| | MW5-ROX-072611-DUP | 7/26/2011 | | 22.00 | NE | <0.005 | <0.005 | <0.005 | <0.01 | <0.0001 | <0.0001 | <0.005 | | <0.0001 | <0.005 | 0.00075 | <0.0002 | <0.01 | <0.01 | <0.01 | <0.005 | <0.005 | <0.005 | <0.01 | <0.00005 | <0.005 | <0.0001 |
| | MW5-ROX-112111 | 11/21/2011 | 33.97 - 43.97 | 23.46 | NE | <0.0053 | 0.00052 J | <0.0053 | <0.011 | 0.00041 | <0.00011 | <0.0053 | | <0.00011 | <0.0053 | 0.00051 J | <0.00021 | <0.011 | <0.011 | <0.011 | <0.0053 | <0.0053 | <0.0053 | <0.011 | <0.000053 | <0.0053 | <0.00011 |
| | MW5-ROX-011712 | 1/17/2012 | | 24.76 | NE | <0.0053 | <0.0053 | <0.0053 | <0.011 | <0.00011 | <0.00011 | <0.0053 | | <0.00011 | <0.0053 | 0.0016 | <0.00021 | <0.011 | <0.011 | <0.011 | <0.0053 | 0.00078 J | <0.0053 | <0.011 | <0.000053 | <0.0053 | <0.00011 |
| | MW5-ROX-050312 | 5/3/2012 | | 25.89 | NE | <0.0051 | <0.0005 U | <0.0051 | <0.01 | <0.0001 | <0.0001 | <0.0051 | | <0.0001 | 0.00072 J | 0.0117 | <0.0002 | <0.01 | <0.01 | <0.01 | <0.0051 | <0.0051 | <0.0051 | <0.01 | <0.000051 | <0.0051 | <0.0001 |
| | MW5-ROX-072512 | 7/25/2012 | | 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 | 33.97 - 43.97 | 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 |
| MW-06A | MW6A-ROX-072611 | 7/26/2011 | 31.98 - 46.98 | 23.76 | 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 |
| | MW6A-ROX-112111 | 11/21/2011 | 34.83 - 44.83 | 25.49 | NE | <0.0052 | 0.00053 J | 0.00093 J | <0.01 | <0.0001 | <0.0001 | <0.0052 | | 0.0015 J | <0.0052 | <0.00021 UJ | <0.00021 | <0.01 | <0.01 | <0.01 | <0.0052 | <0.0052 | <0.0052 | <0.01 | <0.000052 | <0.0052 | <0.0001 |
| | MW6A-ROX-112111-DUP | 11/21/2011 | | 25.49 | NE | <0.0051 | 0.00069 J | <0.0051 | <0.01 | <0.0001 | <0.0001 | <0.0051 | | <0.0001 UJ | <0.0051 | <0.0002 UJ | <0.0002 | <0.01 | <0.01 | <0.01 | <0.0051 | <0.0051 | <0.0051 | <0.01 | <0.000051 | <0.0051 | <0.0001 |
| | MW6A-ROX-011712 | 1/17/2012 | | 26.74 | NE | <0.0054 | <0.0054 | <0.0054 | <0.011 | <0.00011 | <0.00011 | <0.0054 | | <0.00015 U | <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-050212 | 5/2/2012 | | 27.77 | 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 |
| | MW6A-ROX-080112 | 8/1/2012 | | 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 | 34.83 - 44.83 | 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 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | SVOCs | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Dimethyl phthalate | Di-n-butyl phthalate | Di-n-octyl phthalate | 2,6-Dinitrotoluene | Fluoranthene | Fluorene | Hexachlorobenzene | Indene[6] | 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-072311 | 7/23/2011 | 64.05 - 69.05 | 23.60 | NE | <0.0053 UJ | <0.00047 U | <0.0053 | <0.011 | <0.00021 U | <0.00011 | <0.0053 | | <0.000057 U | <0.0053 | <0.00021 | <0.000022 U | <0.011 | <0.011 | <0.011 | <0.0053 | <0.0053 | <0.0053 | <0.011 | <0.000044 U | <0.0053 UJ | <0.00023 U |
| | MW6B-ROX-110311 | 11/3/2011 | | 24.67 | 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 |
| | MW6B-ROX-011712 | 1/17/2012 | | 26.77 | NE | <0.0055 | 0.00055 J | <0.0055 | <0.011 | <0.00011 | <0.00011 | <0.0055 | | <0.00028 U | <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 |
| | MW6B-ROX-050212 | 5/2/2012 | | 27.82 | NE | <0.005 | 0.00039 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-080112 | 8/1/2012 | | 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 | 64.05 - 69.05 | 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 |
| MW-06C | MW6C-ROX-072411 | 7/24/2011 | 84.95 - 89.95 | 23.43 | NE | <0.0053 UJ | <0.0004 U | <0.0053 | <0.011 | 0.000024 JB | <0.00011 | <0.0053 | | 0.000025 J | <0.0053 | <0.00021 | 0.000017 JB | <0.011 | <0.011 | <0.011 | <0.0053 | <0.0053 | <0.0053 | <0.011 | 0.00002 JB | <0.0053 UJ | 0.000023 JB |
| | MW6C-ROX-110311 | 11/3/2011 | | 24.47 | 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 | <0.00011 U | <0.005 | <0.0001 |
| | MW6C-ROX-011712 | 1/17/2012 | | 26.50 | 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 |
| | MW6C-ROX-050212 | 5/2/2012 | | 27.62 | 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 |
| | MW6C-ROX-080112 | 8/1/2012 | | 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 | 84.95 - 89.95 | 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 |
| MW-06D | MW6D-ROX-072311 | 7/23/2011 | 104.72 - 109.72 | 23.29 | NE | <0.0053 UJ | <0.00046 U | <0.0053 | <0.011 | <0.000067 U | <0.00011 | <0.0053 | | <0.000033 U | <0.0053 | <0.00021 | <0.000018 U | <0.011 | <0.011 | <0.011 | <0.0053 | <0.0053 | <0.0053 | <0.011 | <0.00004 U | <0.0053 UJ | <0.000063 U |
| | MW6D-ROX-110311 | 11/3/2011 | | 24.31 | 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-011712 | 1/17/2012 | | 26.33 | NE | <0.0055 | 0.00047 J | <0.0055 | <0.011 | <0.00011 | <0.00011 | <0.0055 | | <0.00011 | <0.0055 | <0.00022 | <0.000085 U | <0.011 | <0.011 | <0.011 | <0.0055 | <0.0055 | <0.0055 | <0.011 | <0.000055 | <0.0055 | <0.00011 |
| | MW6D-ROX-050212 | 5/2/2012 | | 27.45 | NE | <0.005 | 0.00047 J | <0.005 | <0.01 | <0.0001 | <0.0001 | <0.005 | | <0.0001 | <0.0005 U | <0.00021 | <0.00021 | <0.01 | <0.01 | <0.01 | <0.005 | <0.005 | <0.005 | <0.01 | <0.000052 | <0.005 | <0.0001 |
| | MW6D-ROX-080212 | 8/2/2012 | | 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 | 104.72 - 109.72 | 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 |
| MW-07 | MW7-ROX-072411 | 7/24/2011 | 42.92 - 52.92 | 35.65 | NE | <0.0054 UJ | <0.00044 U | <0.0054 | <0.011 | 0.00003 J | 0.000066 J | <0.0054 | | <0.00011 | <0.0054 | 0.0024 | 0.003 | <0.011 | <0.011 | <0.011 | <0.0054 | <0.0054 | <0.0054 | <0.011 | 0.000082 B | <0.0513 UJ | 0.00003 J |
| | MW-7-ROX-110211 | 11/2/2011 | | 35.95 | NE | <0.005 | <0.005 | <0.005 | <0.01 | <0.0001 | <0.00028 U | <0.005 | | <0.0001 | <0.005 | <0.0043 U | <0.0059 U | <0.01 | <0.01 | <0.01 | <0.005 | <0.005 | <0.005 | <0.01 | <0.00033 U | 0.0702 | <0.0001 |
| | MW7-ROX-011812 | 1/18/2012 | | 38.10 | NE | <0.005 | 0.00045 J | <0.005 | <0.01 | <0.0001 | 0.00018 | <0.005 | | <0.0001 | <0.005 | 0.0055 | 0.0069 | <0.01 | <0.01 | <0.01 UJ | <0.005 | <0.005 | <0.005 | <0.01 | 0.00029 | 0.15 | <0.000042 U |
| | MW7-ROX-011812-DUP | 1/18/2012 | | 38.10 | NE | <0.0056 | <0.0056 | <0.0056 | <0.011 | <0.00011 | 0.0002 | <0.0056 | | <0.00011 | <0.0056 | 0.0057 | 0.0071 | <0.011 | <0.011 | <0.011 UJ | <0.0056 | <0.0056 | <0.0056 | <0.011 | 0.00028 | 0.165 | <0.000043 U |
| | MW7-ROX-050412 | 5/4/2012 | | 39.19 | NE | <0.005 | <0.00095 U | <0.005 | <0.01 | 0.000039 J | 0.00019 | <0.005 | | <0.0001 | <0.005 | 0.0075 | 0.0087 | <0.01 | <0.01 | <0.01 | <0.005 | <0.005 | <0.005 | <0.01 | 0.00028 | 0.0944 | <0.0001 |
| | MW7-ROX-080712 | 8/7/2012 | | 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 | 42.92 - 52.92 | 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 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | SVOCs | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Dimethyl phthalate | Di-n-butyl phthalate | Di-n-octyl phthalate | 2,6-Dinitrotoluene | Fluoranthene | Fluorene | Hexachlorobenzene | Indene[6] | 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-08 | MW8-ROX-072411 | 7/24/2011 | 33.60 - 43.60 | 26.02 | NE | <0.0054 UJ | <0.0054 | 0.00077 J | <0.011 | 0.000031 JB | 0.00034 | <0.0054 | | 0.000032 J | <0.0054 | 0.0055 | 0.0068 | 0.0205 | 0.0486 | <0.011 | <0.0054 | <0.0054 | <0.0054 | <0.011 | 0.00014 B | 0.0972 J | 0.000031 JB |
| | MW8-ROX-072411-DUP | 7/24/2011 | | 26.02 | NE | <0.0055 UJ | <0.00038 U | 0.00054 J | <0.011 | 0.000022 JB | 0.0003 | <0.0055 | | 0.000042 J | <0.0055 | 0.0052 | 0.0064 | 0.0177 | 0.0423 | <0.011 | <0.0055 | <0.0055 | <0.0055 | <0.011 | 0.00011 B | 0.0906 J | 0.000023 JB |
| | MW-8-ROX-110211 | 11/2/2011 | | 27.02 | NE | <0.0048 | <0.0048 | <0.0048 | <0.0095 | <0.000095 | <0.00032 U | <0.0048 | | <0.000095 | <0.0048 | <0.0094 U | <0.0119 U | 0.0152 | 0.0242 | <0.0095 | <0.0048 | <0.0048 | <0.0048 | <0.0095 | <0.000048 | 0.134 | <0.000095 |
| | MW8-ROX-011812 | 1/18/2012 | | 29.15 | NE | <0.0053 | <0.0053 | <0.0053 | <0.011 | <0.00053 | 0.00074 | <0.0053 | | <0.00053 | <0.0053 | 0.0165 | 0.0204 | 0.0044 J | 0.0121 | <0.011 UJ | <0.0053 | <0.0053 | <0.0053 | <0.011 | 0.00041 | 0.375 | <0.00053 |
| | MW8-ROX-050412 | 5/4/2012 | | 30.21 | NE | <0.0053 | <0.00063 U | <0.0053 | <0.011 | <0.00011 | 0.00024 | <0.0053 | | <0.00011 | <0.0053 | 0.0085 | 0.0099 | 0.0302 | 0.0657 | <0.011 | <0.0053 | <0.0053 | <0.0053 | <0.011 | 0.00014 | 0.258 J | <0.00011 |
| | MW8-ROX-050412-DUP | 5/4/2012 | | 30.21 | NE | <0.005 | <0.005 | <0.005 | <0.01 | <0.0001 | 0.00031 | <0.005 | | <0.0001 | <0.005 | 0.0086 | 0.0102 | 0.0275 | 0.0569 | <0.01 | <0.005 | <0.005 | <0.005 | <0.01 | 0.00014 | 0.12 J | <0.0001 |
| | MW8-ROX-080712 | 8/7/2012 | | 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 | 33.60 - 43.60 | 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 |
| MW-09 | MW9-ROX-072311 | 7/23/2011 | 46.45 - 56.45 | 38.06 | NE | <0.0054 UJ | <0.0054 | <0.0054 | <0.011 | <0.000044 U | <0.00011 | <0.0054 | | <0.000031 U | <0.0054 | <0.00022 | <0.00022 | <0.01 UJ | <0.01 UJ | <0.011 | <0.0054 | <0.0054 | <0.0054 | <0.01 UJ | <0.00003 U | <0.005 UJ | <0.000046 U |
| | MW9-ROX-110111 | 11/1/2011 | | 37.78 | 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-011612 | 1/16/2012 | | 39.50 | NE | <0.0057 | 0.00048 J | <0.0057 | <0.011 | <0.00011 | <0.00011 | <0.0057 | | <0.000098 U | <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 |
| | MW9-ROX-050312 | 5/3/2012 | | 41.03 | NE | | | | | | | | | | | | | | | | | | | | | | |
| | MW9-ROX-072712 | 7/27/2012 | | 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 | | | | <0.0056 | <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 | 46.45 - 56.45 | 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 |
| MW-10 | MW10-ROX-072311 | 7/23/2011 | 44.43 - 54.43 | 38.01 | NE | <0.005 UJ | <0.005 | <0.005 | <0.01 | <0.00047 U | <0.0001 | <0.005 | | <0.000031 U | <0.005 | <0.0002 | <0.00002 U | <0.01 | <0.01 | <0.01 | <0.005 | <0.005 | <0.005 | <0.01 | <0.000027 U | <0.005 UJ | <0.000044 U |
| | MW10-ROX-110111 | 11/1/2011 | | 37.72 | 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 |
| | MW10-ROX-011612 | 1/16/2012 | | 39.28 | NE | <0.0053 | 0.00081 J | <0.0053 | <0.011 | 0.000052 J | <0.00011 | <0.0053 | | <0.00011 | <0.0053 | <0.00021 | 0.000055 J | <0.011 | <0.011 | <0.011 | <0.0053 | <0.0053 | <0.0053 | <0.011 | 0.000072 | <0.0053 | 0.00005 J |
| | MW10-ROX-050112 | 5/1/2012 | | 40.86 | NE | <0.0052 | <0.00041 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 UJ | <0.0052 | <0.01 | 0.000033 J | <0.0052 UJ | <0.0001 |
| | MW10-ROX-072712 | 7/27/2012 | | 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 | <0.002 | <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 | 44.43 - 54.43 | 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 |

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | SVOCs | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Dimethyl phthalate | Di-n-butyl phthalate | Di-n-octyl phthalate | 2,6-Dinitrotoluene | Fluoranthene | Fluorene | Hexachlorobenzene | Indene[6] | 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-11 | MW11-ROX-072411 | 7/24/2011 | 41.66 - 51.66 | 34.3 | NE | <0.0056 UJ | <0.0056 | <0.0056 | <0.011 | 0.000025 JB | <0.00011 | <0.0056 | | 0.000026 J | <0.0056 | <0.00022 | 0.000023 JB | <0.011 | <0.011 | <0.011 | <0.0056 | <0.0056 | <0.0056 | <0.011 | 0.000021 JB | <0.0056 UJ | 0.000024 JB |
| | MW-11-ROX-110211 | 11/2/2011 | | 35.44 | 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-011712 | 1/17/2012 | | 37.44 | NE | | | | | | | | | | | | | | | | | | | | | | |
| | MW11-ROX-043012 | 4/30/2012 | | 38.66 | 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 |
| | MW11-ROX-072712 | 7/27/2012 | | 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 | 41.66 - 51.66 | 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 |
| MW-12 | MW12-ROX-072411 | 7/24/2011 | 41.92 - 51.92 | 35.55 | NE | <0.005 UJ | <0.00039 U | <0.005 | <0.01 | 0.000035 JB | <0.0001 | <0.005 | | 0.000047 J | <0.005 | <0.0002 | <0.0002 | <0.01 UJ | <0.01 UJ | <0.01 | <0.005 | <0.005 | <0.005 | <0.01 UJ | 0.000024 JB | <0.005 UJ | 0.00004 JB |
| | MW-12-ROX-110211 | 11/2/2011 | | 35.70 | NE | <0.0048 | <0.0048 | <0.0048 | <0.0095 | <0.000095 | <0.000095 | <0.0048 | | <0.000095 | <0.0048 | <0.00019 | <0.00019 | <0.0095 | <0.0095 | <0.0095 | <0.0048 | <0.0048 | <0.0048 | <0.0095 | <0.000048 | <0.0048 | <0.000095 |
| | MW-12-ROX-110211-DUP | 11/2/2011 | | 35.70 | NE | <0.0048 | <0.0048 | <0.0048 | <0.0095 | <0.000095 | <0.000095 | <0.0048 | | <0.000095 | <0.0048 | <0.00019 | <0.00019 | <0.0095 | <0.0095 | <0.0095 | <0.0048 | <0.0048 | <0.0048 | <0.0095 | <0.000048 | <0.0048 | <0.000095 |
| | MW12-ROX-011712 | 1/17/2012 | | 37.70 | NE | <0.0054 | <0.0054 | <0.0054 | <0.011 | <0.00011 | <0.00011 | <0.0054 | | <0.00023 U | <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 |
| | MW12-ROX-011712-DUP | 1/17/2012 | | 37.70 | NE | <0.0056 | <0.0056 | <0.0056 | <0.011 | <0.00011 | <0.00011 | <0.0056 | | <0.00007 U | <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-043012 | 4/30/2012 | | 38.98 | 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 |
| | MW12-ROX-072712 | 7/27/2012 | | 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 | <0.011 UJ | <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 | 41.92 - 51.92 | 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 |
| MW-13 | MW13-ROX-080311 | 8/3/2011 | 25.57 - 35.57 | 21.67 | NE | <0.005 | <0.00074 U | <0.005 | <0.01 | <0.0001 | <0.0001 | <0.005 | | 0.00004 J | <0.005 | <0.0002 | 0.00011 J | <0.01 | <0.01 | <0.01 | <0.005 | <0.005 | <0.005 | <0.01 | <0.000054 U | <0.005 UJ | 0.000041 J |
| | MW13-ROX-110311 | 11/3/2011 | | 22.85 | NE | <0.0056 | <0.0056 | <0.0056 | <0.011 | <0.00011 | <0.00033 U | <0.0056 | | <0.00011 | <0.0056 | <0.00081 U | <0.0003 U | <0.011 | <0.011 | <0.011 | <0.0056 | <0.0056 | <0.0056 | <0.011 | <0.000056 | <0.0056 | <0.00018 U |
| | MW13-ROX-012012 | 1/20/2012 | | 24.77 | NE | <0.0053 | <0.00058 U | <0.0053 | <0.011 | <0.00011 | <0.00011 | <0.0053 | | <0.00011 | <0.0053 | 0.00022 | <0.00027 U | <0.011 | <0.011 | <0.011 | <0.0053 | <0.0053 | <0.0053 | <0.011 | <0.000053 | 0.0015 J | 0.000065 J |
| | MW13-ROX-050712 | 5/7/2012 | | 25.79 | 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-080812 | 8/8/2012 | | 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 | 25.57 - 35.57 | 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 |
| MW-14 | MW14-ROX-110911 | 11/9/2011 | 33.42 - 43.42 | | | <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 |
| | MW14-ROX-051012 | 5/10/2012 | | NM | NE | <0.0052 | 0.00043 J | <0.0052 | <0.01 | <0.0001 | 0.00022 | <0.0052 | | <0.0001 | <0.0052 | 0.0101 | 0.0015 | <0.01 | <0.01 | <0.01 | <0.0052 | <0.0052 | <0.0052 | <0.01 | <0.000052 | <0.0052 | <0.0001 |
| | MW14-ROX-080312 | 8/3/2012 | | 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 | 33.42 - 43.42 | 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 |
| 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 | 37.06 - 47.06 | 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 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | SVOCs | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Dimethyl phthalate | Di-n-butyl phthalate | Di-n-octyl phthalate | 2,6-Dinitrotoluene | Fluoranthene | Fluorene | Hexachlorobenzene | Indene[6] | 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-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 | 37.88 - 47.88 | 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 |
| 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 | 38.89 - 48.89 | 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 |
| P-54 | P54-ROX-072411 | 7/24/2011 | 38.00 - 63.00 | 35.38 | NE | <0.005 UJ | <0.00049 U | <0.005 | <0.01 | 0.000035 JB | <0.0001 | <0.005 | | 0.00004 J | <0.005 | <0.0002 | 0.000026 JB | <0.01 | <0.01 | <0.01 | <0.005 | <0.005 | <0.005 | <0.01 | 0.000025 JB | <0.005 UJ | 0.000031 JB |
| | P54-ROX-110311 | 11/3/2011 | | 35.49 | 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 |
| | P54-ROX-011712 | 1/17/2012 | | 37.17 | NE | <0.0052 | <0.0052 | <0.0052 | <0.01 | <0.0001 | <0.0001 | <0.0052 | | <0.0001 | <0.0052 | <0.00021 | <0.000081 U | <0.01 | <0.01 | <0.01 | <0.0052 | <0.0052 | <0.0052 | <0.01 | <0.000052 | <0.0052 | <0.0001 |
| | P54-ROX-050412 | 5/4/2012 | | 38.77 | NE | <0.0051 | <0.00085 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 | 0.0026 J | <0.0001 |
| | P54-ROX-080212 | 8/2/2012 | | 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 | 38.00 - 63.00 | 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 |
| P-55 | P55-ROX-103111 | 10/31/2011 | 39.82 - 64.82 | 39.15 | NE | <0.005 | <0.005 | <0.005 | <0.01 | <0.0001 | <0.0001 | <0.005 | | <0.0001 | <0.005 | 0.00065 | 0.00096 | <0.01 | <0.01 | <0.01 | <0.005 | <0.005 | <0.005 | <0.01 | 0.00016 | <0.005 | <0.0001 |
| | P55-ROX-011912 | 1/19/2012 | | 41.09 | NE | <0.0052 | <0.0052 | <0.0052 | <0.01 | <0.0001 | 0.00038 | <0.0052 | | <0.0001 | <0.0052 | 0.0048 | 0.0076 | <0.01 | <0.01 | <0.01 UJ | <0.0052 | <0.0052 | <0.0052 | <0.01 | 0.00039 | <0.0052 | <0.0001 |
| | P55-ROX-011912-D | 1/19/2012 | | 41.09 | NE | <0.0054 | <0.0054 | <0.0054 | <0.011 | <0.00011 | 0.00032 | <0.0054 | | 0.00011 | <0.0054 | 0.0046 | 0.0076 | <0.011 | <0.011 | <0.011 UJ | <0.0054 | <0.0054 | <0.0054 | <0.011 | 0.00036 | 0.0029 J | <0.00011 |
| | P55-ROX-050912 | 5/9/2012 | | 42.44 | NE | <0.0051 | <0.0051 | <0.0051 | <0.01 | <0.0001 | 0.00069 | <0.0051 | | <0.0001 | <0.0051 | 0.0118 | 0.0179 | <0.01 | <0.01 | <0.01 | <0.0051 | <0.0051 | <0.0051 | <0.01 | 0.00066 | <0.0051 | <0.0001 |
| | 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 |
| P-56 | P56-ROX-102711 | 10/27/2011 | 40.82 - 65.82 | 39.42 | NE | <0.0052 | <0.0052 | <0.0052 | <0.01 | <0.0001 | 0.00039 | <0.0052 | | <0.0001 | <0.0052 | 0.016 | 0.0224 | <0.01 | <0.01 | <0.01 | <0.0052 | <0.0052 | <0.0052 | <0.01 | 0.0011 | <0.0052 | <0.0001 |
| | P56-ROX-011912 | 1/19/2012 | | 41.81 | NE | <0.0051 | <0.00044 U | <0.0051 | <0.01 | <0.0001 | 0.00046 | <0.0051 | | <0.0001 | <0.0051 | 0.0186 | 0.024 | <0.01 | <0.01 | <0.01 UJ | <0.0051 | <0.0051 | <0.0051 | <0.01 | 0.0012 | <0.0051 | 0.000036 J |
| | P56-ROX-050812 | 5/8/2012 | | 43.09 | NE | <0.0052 | <0.0052 | <0.0052 | <0.01 | <0.0001 | 0.00033 | <0.0052 | | <0.0001 | <0.0052 | 0.0186 | 0.0236 | <0.01 | <0.01 | <0.01 | <0.0052 | <0.0052 | <0.0052 | <0.01 | 0.0011 | <0.0052 | <0.0001 |
| | P56-ROX-080612 | 8/6/2012 | | 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 | 40.82 - 65.82 | 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 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | SVOCs | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Dimethyl phthalate | Di-n-butyl phthalate | Di-n-octyl phthalate | 2,6-Dinitrotoluene | Fluoranthene | Fluorene | Hexachlorobenzene | Indene[6] | 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-57 | P57-ROX-110811 | 11/8/2011 | 40.46 - 65.46 | 39.20 | NE | <0.0054 | <0.0054 | <0.0054 | <0.011 | <0.00054 | 0.00076 | <0.0054 | | <0.00054 | <0.0054 | 0.0288 | 0.0388 | <0.011 | <0.011 | <0.011 | <0.0054 | <0.0054 | <0.0054 | <0.011 | 0.0006 | 0.286 | <0.00054 |
| | P57-ROX-021312 | 2/13/2012 | | 42.13 | NE | <0.0051 | <0.00046 U | <0.0051 | <0.01 | <0.0001 | 0.00087 | <0.0051 | | <0.0001 | <0.0051 | | 0.0403 | <0.01 | <0.01 | <0.01 | <0.0051 | <0.0051 | <0.0051 | <0.01 | 0.00051 | 0.297 | <0.0001 |
| | P57-ROX-050712 | 5/7/2012 | | 42.92 | NE | <0.0052 | <0.0052 | <0.0052 | <0.01 | <0.0001 | 0.00045 | <0.0052 | | <0.0001 | <0.0052 | 0.0169 | 0.0212 | <0.01 | 0.0023 J | <0.01 | <0.0052 | <0.0052 | <0.0052 | <0.01 | 0.00035 | 0.141 | <0.0001 |
| | P57-ROX-080612 | 8/6/2012 | | 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 | 40.46 - 65.46 | 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 |
| P-58 | P58-ROX-102811 | 10/28/2011 | 40.21 - 65.21 | 37.31 | NE | <0.0049 | <0.0049 | <0.0049 | <0.0097 | <0.000097 | 0.0016 | <0.0049 | | <0.000097 | <0.0049 | 0.049 | 0.0717 | <0.0097 | 0.0347 | <0.0097 | <0.0049 | <0.0049 | <0.0049 | <0.0097 | 0.00085 | 0.137 | 0.00012 |
| | P58-ROX-011912 | 1/19/2012 | | 39.73 | NE | <0.0053 | <0.00057 U | <0.0053 | <0.011 | 0.000047 J | 0.0017 | <0.0053 | | <0.00011 | <0.0053 | 0.0639 | 0.0904 | <0.011 | 0.0171 | <0.011 UJ | <0.0053 | <0.0053 | <0.0053 | <0.011 | 0.00084 | 0.259 | 0.00012 |
| | P58-ROX-011912-D | 1/19/2012 | | 39.73 | NE | <0.0053 | <0.00059 U | <0.0053 | <0.011 | 0.000052 J | 0.0018 | <0.0053 | | <0.00011 | <0.0053 | 0.0588 | 0.0821 | <0.011 | 0.0156 | <0.011 UJ | <0.0053 | <0.0053 | <0.0053 | <0.011 | 0.0008 | 0.225 | 0.00012 |
| | P58-ROX-050712 | 5/7/2012 | | 40.90 | NE | <0.0051 | <0.0051 | <0.0051 | <0.01 | <0.0001 | 0.0009 J | <0.0051 | | <0.0001 | <0.0051 | 0.0351 J | 0.0435 J | <0.01 | 0.0181 | <0.01 | <0.0051 | <0.0051 | <0.0051 | <0.01 | 0.00056 J | 0.161 | 0.0001 |
| | P58-ROX-050712-DUP | 5/7/2012 | | 40.90 | NE | <0.0052 | <0.0052 | <0.0052 | <0.01 | <0.0001 | 0.00067 J | <0.0052 | | <0.0001 | <0.0052 | 0.0267 J | 0.0338 J | <0.01 | 0.0122 | <0.01 | <0.0052 | <0.0052 | <0.0052 | <0.01 | 0.00041 J | 0.147 | 0.000076 J |
| | P58-ROX-080612 | 8/6/2012 | | 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 | 40.21 - 65.21 | 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 |
| P-59 | P59-ROX-102711 | 10/27/2011 | 47.91 - 72.91 | 41.06 | NE | <0.0053 | <0.0053 | <0.0053 | <0.011 | 0.00035 | 0.0012 | <0.0053 | | <0.00011 | <0.0053 | 0.0121 | 0.0184 | <0.011 | <0.011 | <0.011 | <0.0053 | <0.0053 | <0.0053 | <0.011 | 0.002 | 0.0383 | 0.00057 |
| | P59-ROX-011912 | 1/19/2012 | | 42.88 | NE | <0.0057 | <0.0005 U | <0.0057 | <0.011 | 0.000073 J | 0.0008 | <0.0057 | | <0.00011 | <0.0057 | 0.0175 | 0.0279 | 0.0045 J | 0.0092 J | <0.011 UJ | <0.0057 | <0.0057 | 0.00079 J | <0.011 | 0.00081 | 0.0906 J | 0.00013 |
| | P59-ROX-011912-DUP | 1/19/2012 | | 42.88 | NE | <0.0051 | <0.00041 U | <0.0051 | <0.01 | 0.000073 J | 0.00063 | <0.0051 | | <0.0001 | <0.0051 | 0.0178 | 0.029 | <0.01 | 0.0076 J | <0.01 UJ | <0.0051 | <0.0051 | 0.00087 J | <0.01 | 0.00081 | 0.0646 J | 0.00013 |
| | P59-ROX-050912 | 5/9/2012 | | 44.11 | NE | <0.005 | <0.005 | <0.005 | <0.01 | 0.000062 J | 0.00034 | <0.005 | 0.0056 JN | <0.0001 | <0.005 | 0.0117 | 0.018 | <0.01 | 0.0062 J | <0.01 | <0.005 | <0.005 | <0.005 | <0.01 | 0.00053 | 0.0241 | 0.000092 J |
| | P59-ROX-080212 | 8/2/2012 | | 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 | 47.91 - 72.91 | 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 |
| P-66 | P66-ROX-110111 | 11/1/2011 | 34.72 - 59.72 | 28.92 | NE | <0.005 | <0.005 | <0.005 | <0.01 | 0.00017 | 0.003 | <0.005 | | <0.0001 | <0.005 | 0.093 | 0.0295 | <0.01 | <0.01 | <0.01 | <0.005 | <0.005 | <0.005 | <0.01 | 0.0013 | <0.005 | 0.00029 |
| | P66-ROX-051012 | 5/10/2012 | | 32.48 | NE | <0.005 | 0.00054 J | <0.005 | <0.01 | 0.000056 J | 0.0015 | <0.005 | | <0.0001 | <0.005 | 0.0647 | 0.025 | <0.01 | <0.01 | <0.01 | <0.005 | <0.005 | <0.005 | <0.01 | 0.00057 | <0.005 | 0.000082 J |
| | P66-ROX-080312 | 8/3/2012 | | 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 | 34.72 - 59.72 | 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 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | SVOCs | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Dimethyl phthalate | Di-n-butyl phthalate | Di-n-octyl phthalate | 2,6-Dinitrotoluene | Fluoranthene | Fluorene | Hexachlorobenzene | Indene[6] | 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-74 | P74-ROX-103111 | 10/31/2011 | 44.43 - 69.43 | 36.26 | NE | <0.005 | <0.005 | <0.005 | <0.01 | <0.0001 | 0.00044 | <0.005 | | <0.0001 | <0.005 | 0.0177 | 0.0265 | <0.01 | <0.01 | <0.01 | <0.005 | <0.005 | <0.005 | <0.01 | 0.00025 | 0.0127 | <0.0001 |
| | P74-ROX-011912 | 1/19/2012 | | 38.77 | NE | <0.0048 | <0.0048 | <0.0048 | <0.0095 | <0.000095 | <0.000095 | <0.0048 | | <0.000095 | <0.0048 | <0.00019 | <0.00019 | <0.0095 | <0.0095 | <0.0095 UJ | <0.0048 | <0.0048 | <0.0048 | <0.0095 | <0.000048 | 0.002 J | <0.000095 |
| | P74-ROX-050712 | 5/7/2012 | | 39.92 | NE | <0.0052 | <0.0052 | <0.0052 | <0.01 | <0.0001 | <0.0001 | <0.0052 | | <0.0001 | <0.0052 | 0.00016 J | <0.00021 | <0.01 | <0.01 | <0.01 | <0.0052 | <0.0052 | <0.0052 | <0.01 | 0.000047 J | 0.0089 | <0.0001 |
| | P74-ROX-080612 | 8/6/2012 | | 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 | 44.43 - 69.43 | 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 |
| P-93A | P93A-ROX-081811 | 8/18/2011 | 48.17 - 63.17 | 39.40 | NE | <0.005 | <0.001 U | <0.005 | <0.01 | <0.000033 U | 0.00047 | <0.005 | | <0.0001 | <0.005 | 0.0224 | 0.0302 | <0.01 | 0.0093 J | <0.01 | <0.005 | <0.005 | <0.005 | <0.01 | 0.00043 | 0.183 | 0.000037 J |
| | P93A-ROX-102611 | 10/26/2011 | | 39.43 | NE | <0.005 | <0.005 | <0.005 | <0.01 | <0.0001 | 0.00033 | <0.005 | | <0.0001 | <0.005 | 0.0162 | 0.0258 | <0.01 | <0.01 | <0.01 | <0.005 | <0.005 | <0.005 | <0.01 | 0.00032 | 0.193 | <0.0001 |
| | P93A-ROX-012012 | 1/20/2012 | | 41.66 | NE | <0.0048 | <0.00038 U | <0.0048 | <0.0095 | <0.000095 | <0.000095 | <0.0048 | | <0.000095 | <0.0048 | 0.0133 | 0.0188 | <0.0095 | 0.0029 J | <0.0095 | <0.0048 | <0.0048 | <0.0048 | <0.0095 | <0.00022 U | 0.234 | <0.000095 |
| | P93A-ROX-050812 | 5/8/2012 | | 42.75 | NE | <0.0051 | <0.0051 | <0.0051 | <0.01 | <0.0001 | 0.00021 | <0.0051 | | <0.0001 | <0.0051 | 0.0121 | 0.0151 | <0.01 | 0.0014 J | <0.01 | <0.0051 | <0.0051 | <0.0051 | <0.01 | 0.00021 | <0.0051 | <0.0001 |
| | P93A-ROX-080912 | 8/9/2012 | | 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 | 48.17 - 63.17 | 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 |
| P-93B | P93B-ROX-081811 | 8/18/2011 | 74.60 - 76.60 | 39.44 | NE | <0.0052 | <0.00077 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 | 0.116 | <0.0001 |
| | P93B-ROX-102611 | 10/26/2011 | | 39.48 | 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 | 0.122 | <0.0001 |
| | P93B-ROX-012012 | 1/20/2012 | | 41.72 | NE | <0.0048 | <0.0048 | <0.0048 | <0.0095 | <0.000095 | <0.000095 | <0.0048 | | <0.000095 | <0.0048 | <0.00019 | <0.00019 | <0.0095 | <0.0095 | <0.0095 | <0.0048 | <0.0048 | <0.0048 | <0.0095 | <0.000048 | 0.107 | <0.000095 |
| | P93B-ROX-050812 | 5/8/2012 | | 42.79 | 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 |
| | P93B-ROX-080912 | 8/9/2012 | | 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 | 74.60 - 76.60 | 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 |
| P-93C | P93C-ROX-081811 | 8/18/2011 | 94.26 - 96.26 | 39.32 | NE | <0.005 | <0.00064 U | <0.005 | <0.01 | <0.0001 | <0.0001 | <0.005 | | <0.0001 | <0.005 | <0.0002 | <0.000033 U | <0.01 | <0.01 | <0.01 | <0.005 | <0.005 | <0.005 | <0.01 | <0.00005 | 0.0046 J | <0.0001 |
| | P93C-ROX-102611 | 10/26/2011 | | 39.36 | 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-012012 | 1/20/2012 | | 41.57 | 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 |
| | P93C-ROX-050812 | 5/8/2012 | | 42.68 | 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 |
| | P93C-ROX-080912 | 8/9/2012 | | 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 | 94.26 - 96.26 | 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 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | SVOCs | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Dimethyl phthalate | Di-n-butyl phthalate | Di-n-octyl phthalate | 2,6-Dinitrotoluene | Fluoranthene | Fluorene | Hexachlorobenzene | Indene[6] | 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-93D | P93D-ROX-081811 | 8/18/2011 | 125.75 - 127.75 | 39.46 | NE | <0.005 | <0.0011 U | <0.005 | <0.01 | <0.000023 U | <0.0001 | <0.005 | | <0.0001 | <0.005 | <0.0002 | <0.000042 U | <0.01 | <0.01 | <0.01 | <0.005 | <0.005 | <0.005 | <0.01 | <0.00005 | <0.005 | 0.000021 J |
| | P93D-ROX-102711 | 10/27/2011 | | 39.59 | 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 |
| | P93D-ROX-012012 | 1/20/2012 | | 41.77 | NE | <0.0054 | <0.0054 | <0.0054 | <0.011 | <0.00011 | <0.00011 | <0.0054 | | <0.00011 | <0.0054 | <0.00022 | <0.00006 U | <0.011 | <0.011 | <0.011 | <0.0054 | <0.0054 | <0.0054 | <0.011 | <0.000054 | <0.0054 | <0.00011 |
| | P93D-ROX-050812 | 5/8/2012 | | 42.96 | 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 |
| | P93D-ROX-080812 | 8/8/2012 | | 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 | 125.75 - 127.75 | 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 |
| P-114 | P114-ROX-102811 | 10/28/2011 | 32.67 - 52.67 | 24.73 | NE | <0.0048 | <0.0048 | <0.0048 | <0.0095 | <0.000095 | <0.000095 | <0.0048 | | <0.000095 | <0.0048 | <0.00019 | <0.00019 | <0.0095 | <0.0095 | <0.0095 | <0.0048 | <0.0048 | <0.0048 | <0.0095 | <0.000048 | <0.0048 | <0.000095 |
| | P114-ROX-012012 | 1/20/2012 | | 27.17 | NE | <0.0051 | <0.0051 | <0.0051 | <0.01 | <0.0001 | <0.0001 | <0.0051 | | 0.000066 J | <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 |
| | P114-ROX-050912 | 5/9/2012 | | 28.09 | NE | <0.0052 | <0.0052 | <0.0052 | <0.01 | <0.0001 | <0.0001 | <0.0052 | | <0.0001 | <0.0052 | <0.0002 | <0.0002 | <0.01 | <0.01 | <0.01 | <0.0052 | <0.0052 | <0.0052 | <0.01 | <0.00005 | <0.0052 | <0.0001 |
| | P114-ROX-080912 | 8/9/2012 | | 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 | 32.67 - 52.67 | 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 |
| ROST-3-PZ | ROST3PZ-ROX-051412 | 5/14/2012 | 40.00 - 50.00 | 38.82 | NE | <0.0052 | <0.00043 U | <0.0052 | <0.01 | <0.0001 | <0.0001 | <0.0052 | | <0.0001 | <0.0052 | 0.0002 J | 0.00017 J | <0.01 | 0.0087 J | <0.01 | <0.0052 | <0.0052 | <0.0052 | <0.01 | 0.000043 J | <0.0052 | <0.0001 |
| | ROST3PZ-ROX-080712 | 8/7/2012 | | 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 |
| ROST-3-MW | 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 | | | | <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 | 37.81 - 47.81 | 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 |
| ROST-4-PZ(C) | ROST4PZ-C-051412 | 5/14/2012 | 34.95 - 44.95 | 39.04 | NE | <0.005 | <0.00058 U | <0.005 | <0.01 | <0.0001 | 0.00022 | <0.005 | | <0.0001 | <0.005 | 0.0044 | 0.0049 | <0.01 | <0.01 | <0.01 | <0.005 | <0.005 | <0.005 | <0.01 | 0.00082 | <0.005 | 0.000041 J |
| | ROST4PZ-C-ROX-072512 | 7/25/2012 | | 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 | 34.95 - 44.95 | 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 |

SEE LAST PAGE OF TABLE FOR NOTES

**TABLE 3**
**CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES**

| | | | | | | SVOCs | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Dimethyl phthalate | Di-n-butyl phthalate | Di-n-octyl phthalate | 2,6-Dinitrotoluene | Fluoranthene | Fluorene | Hexachlorobenzene | Indene[6] | 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) | | | | | | | | | | | | | | | | | | | | |
| T-12 | T12-ROX-102711 | 10/27/2011 | 46.72 - 72.72 | 38.54 | NE | <0.0051 | <0.0051 | <0.0051 | <0.01 | <0.0001 | 0.0006 | <0.0051 | | <0.0001 | <0.0051 | 0.0264 | 0.0415 | <0.01 | <0.01 | <0.01 | <0.0051 | <0.0051 | <0.0051 | <0.01 | 0.0015 | 0.0167 | 0.0001 |
| | T12-ROX-011912 | 1/19/2012 | | 41.0 | NE | <0.0056 | <0.00048 U | <0.0056 | <0.011 | 0.000044 J | 0.00043 | <0.0056 | | 0.000061 J | <0.0056 | 0.0158 | 0.0186 | 0.00091 J | <0.011 | <0.011 UJ | <0.0056 | <0.0056 | <0.0056 | <0.011 | 0.00054 | 0.0188 | 0.000067 J |
| | T12-ROX-050912 | 5/9/2012 | | 42.62 | NE | <0.005 | <0.005 | <0.005 | <0.01 | <0.0001 | 0.00024 | <0.005 | | <0.0001 | <0.005 | 0.0164 | 0.0254 | <0.01 | 0.0026 J | <0.01 | <0.005 | <0.005 | <0.005 | <0.01 | 0.00062 | 0.0094 | 0.000039 J |
| | T12-ROX-080212 | 8/2/2012 | | 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 - 72.72 | 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 |

**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.

Indicates a historical exceedance of screening criteria.

Indicates a current exceedance of screening criteria.

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

SGS ACCUTEST IS PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

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# Technical Report for

## Shell Oil

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana,

SGS Accutest Job Number: MC29574

Sampling Date: 04/07/14



Report to:

AECOM, INC.

Melissa.mansker@aecom.com

ATTN: Melissa Mansker

Total number of pages in report: 100

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.

H. (Brad) Madadian
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO (MA00136) MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.



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Unauthorized modification of this report is strictly prohibited.

SGS ACCUTEST

November 2, 2016

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

RE: SGS Accutest Job # MC29574

Dear Elizabeth Kunkel

As you are aware, SGS Accutest Inc. - Marlboroug has been conducting an extensive review of data associated with some historical Gas Chromatography-Mass Spectroscopy volatiles analyses. As a result of this review it was determined that some revisions of the original test report for this job were needed. These corrections have been incorporated into the revised report.

Please be assured that corrective actions have been put in place to address this matter and prevent a recurrence.

We apologize for any inconvenience that this issue may have caused. Please don't hesitate to contact us if we can be of further assistance.

Sincerely

**H. (Brad) Madadian**

Regional Laboratory Director
SGS Accutest Inc. - Marlborough

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# Sample Summary

Shell Oil

Job No: MC29574

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample Number | Collected Date | Time | By | Received | Matrix Code | Type | Client Sample ID |
|---|---|---|---|---|---|---|---|
| MC29574-1 | 04/07/14 | 09:50 | MMDM | 04/08/14 | AQ | Ground Water | MW1-ROX-040714 |
| MC29574-1D | 04/07/14 | 09:50 | MMDM | 04/08/14 | AQ | Water Dup/MSD | MW1-ROX-040714 |
| MC29574-1S | 04/07/14 | 09:50 | MMDM | 04/08/14 | AQ | Water Matrix Spike | MW1-ROX-040714 |
| MC29574-2 | 04/07/14 | 11:15 | MMDM | 04/08/14 | AQ | Ground Water | MW9-ROX-040714 |
| MC29574-3 | 04/07/14 | 14:05 | MMDM | 04/08/14 | AQ | Ground Water | MW10-ROX-040714 |
| MC29574-4 | 04/07/14 | 14:20 | MMDM | 04/08/14 | AQ | Equipment Blank | MW11-ROX-040714-EB |
| MC29574-5 | 04/07/14 | 15:45 | MMDM | 04/08/14 | AQ | Ground Water | MW11-ROX-040714 |
| MC29574-6 | 04/07/14 | 00:00 | MMDM | 04/08/14 | AQ | Trip Blank Water | TB-ROX-040714-HCL |
| MC29574-7 | 04/07/14 | 00:00 | MMDM | 04/08/14 | AQ | Trip Blank Water | TB-ROX-040714-ST |

# SAMPLE DELIVERY GROUP CASE NARRATIVE



**Client:** She O **Job No** MC29574

**Site:** URSMOSTL:Roxana 2Q 4 GW/ 2 562973 03002 900 South Centra **Report Date** /2/20 6 2:42:27 PM

5 Samp e(s), 2 Tr p B ank(s) were co ected on 04/07/20 4 and were rece ved at SGS Accutest New Eng and on 04/08/20 4 proper y preserved, at 0 4 Deg C and ntact These Samp es rece ved a job number of MC29574 A st ng of the Laborato y Samp e ID, C ent Samp e ID and dates of co ect on are presented n the Resu ts Summary Sect on of th s report -Ch orohexane, Benzeneth o , D benz(a,h)acr d ne, Indene, and Qu no ne were searched n the bra y search and reported on y f detect ons were found

Except as noted be ow, a method spec f ed ca brat ons and qua ty contro performance cr ter a were met for th s job For more nformat on, p ease refer to QC summary pages

## Volatiles by GCMS By Method SW846 8260C

**Matrix:** AQ **Batch ID:** MSV

- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29574- MS, MC29574- MSD were used as the QC samp es nd cated
- A method b anks for th s batch meet method spec f c cr ter a
- Matr x Sp ke Recovery(s) for ,2,3-Tr ch orobenzene, 2-Ch oroethy v ny ether, Naphtha ene are outs de contro m ts Outs de contro m ts due to poss b e matr x nterference
- Matr x Sp ke Dup cate Recove y(s) for ,4-D oxane, 2-Ch oroethy v ny ether, Acetone are outs de contro m ts Outs de contro m ts due to poss b e matr x nterference
- RPD(s) for MSD for ,2,3-Tr ch orobenzene, Naphtha ene are outs de contro m ts for samp e MC29574- MSD H gh RPD due to poss b e matr x nterference and/or samp e non-homogene ty
- MSV -BS for 2-Ch oroethy v ny ether, Acro e n and MC29574-1MS/MSD for Acrolein: Outs de contro m ts Associated samples are non-detect for this compound
- Acetone, acry on tr e, 2-butanone, ,4-d oxane: Cont nu ng Ca brat on Ver f cat on outs de of acceptance cr ter a Samp e resu t may be b ased ow

## Extractables by GCMS By Method SW846 8270D

**Matrix:** AQ **Batch ID:** OP37522

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29574- MS, MC29574- MSD were used as the QC samp es nd cated
- Samp e(s) MC29574- , MC29574-4 have compound(s) reported w th a "B" qua f er, nd cat ng ana yte s found n the assoc ated method b ank
- B ank Sp ke Recovery(s) for b s(2-Ch oro sopropy )ether, D -n-octy phtha ate are outs de contro m ts
- OP37522-MS/MSD Recovery(s) for 2,4,5-Tr ch oropheno , 2,4,6-Tr ch oropheno , 2,4-D ch oropheno , 2,4-D methy pheno , 2-Ch oropheno , 2-Methy pheno , 3&4-Methy pheno , 3,3'-D ch orobenz d ne, 4-Ch oro-3-methy pheno , An ne, Pentach oropheno , Pheno , Pyr d ne are outs de contro m ts Outs de contro m ts due to poss b e matr x nterference Refer to B ank Sp ke
- RPD(s) for MSD for 2,4,5-Tr ch oropheno , 2,6-D n troto uene, 2-N troan ne, 3-N troan ne, D methy phtha ate are outs de contro m ts for samp e OP37522-MSD H gh RPD due to poss b e matr x nterference and/or samp e non-homogene ty
- MC29574- for 2-F uoropheno , Pheno -d5, 2,4,6-Tr bromopheno : Outs de contro m ts Samp e re-extracted/reana yzed
- OP37522-MS/MSD for 2-F uoropheno , Pheno -d5, 2,4,6-Tr bromopheno : Outs de contro m ts due to poss b e matr x nterference
- RPD of OP37522-MSD for D -n-octy phtha ate: Outs de contro m ts
- Ca brat on check standard MSR 404-ECC 399 not assoc ated w th th s job

**Matrix:** AQ **Batch ID:** OP3757

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29300-23MS, MC29300-23MSD were used as the QC samp es nd cated
- Samp e(s) MC29574-2, MC29574-3, MC29574-5 have compound(s) reported w th a "B" qua f er, nd cat ng ana yte s found n the assoc ated method b ank
- B ank Sp ke Recovery(s) for 4-N tropheno , Benzy A coho , Pyr d ne are outs de contro m ts
- OP3757 -MS/MSDe Recovery(s) for Pheno are outs de contro m ts Outs de contro m ts due to poss b e matr x nterference Refer to B ank Sp ke
- OP3757 -MS/MSD for 4-N tropheno , Benzy A coho , Pyr d ne: Outs de contro m ts

**Matrix:** AQ **Batch ID:** OP37657

- Samp e(s) MC29400- 9MS, MC29400- 9MSD were used as the QC samp es nd cated
- A method b anks for th s batch meet method spec f c cr ter a
- OP37657-BS/MS/MSD Recovery(s) for Benzo c Ac d are outs de contro m ts
- MC29574- : Samp e re-extracted beyond recommended ho d ng t me

## Extractables by GCMS By Method SW846 8270D BY SIM

**Matrix:** AQ **Batch ID:** OP37523

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29574- MS, MC29574- MSD were used as the QC samp es nd cated
- Samp e(s) MC29574- , MC29574-2, MC29574-3, MC29574-4, MC29574-5 have compound(s) reported w th a "B" qua f er, nd cat ng ana yte s found n the assoc ated method b ank

## Volatiles by GC By Method SW846 8011

**Matrix:** AQ **Batch ID:** OP37559

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29574- MS, MC29574- MSD were used as the QC samp es nd cated
- A method b anks for th s batch meet method spec f c cr ter a

SGS Accutest New Eng and cert f es that a ana ys s were performed w th n method spec f cat on It s further recommended that th s report to be used n ts ent rety The Laborato y D rector for SGS Accutest New Eng and or ass gnee as ver f ed by the s gnature on the cover page has author zed the re ease of th s repo t(MC29574)

# Summary of Hits



Job Number: MC29574
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
Collected: 04/07/14



| Lab Sample ID / Analyte | Client Sample ID | Result/ Qual | RL | MDL | Units | Method |
|---|---|---|---|---|---|---|
| MC29574-1 | MW1-ROX-040714 | | | | | |
| Benzene | | 0.66 | 0.50 | 0.32 | ug/l | SW846 8260C |
| Benzoic Acid [a] | | 3.0 J | 11 | 2.9 | ug/l | SW846 8270D |
| Di-n-butyl phthalate | | 0.29 JB | 5.4 | 0.19 | ug/l | SW846 8270D |
| Phenanthrene | | 0.023 JB | 0.054 | 0.014 | ug/l | SW846 8270D BY SIM |
| MC29574-2 | MW9-ROX-040714 | | | | | |
| Benzene | | 4.4 | 0.50 | 0.32 | ug/l | SW846 8260C |
| Di-n-butyl phthalate | | 0.62 JB | 5.6 | 0.19 | ug/l | SW846 8270D |
| bis(2-Ethylhexyl)phthalate | | 0.54 JB | 2.2 | 0.37 | ug/l | SW846 8270D |
| Benzo(a)anthracene | | 0.024 J | 0.056 | 0.022 | ug/l | SW846 8270D BY SIM |
| 2-Methylnaphthalene | | 0.10 J | 0.22 | 0.082 | ug/l | SW846 8270D BY SIM |
| Phenanthrene | | 0.056 B | 0.056 | 0.014 | ug/l | SW846 8270D BY SIM |
| MC29574-3 | MW10-ROX-040714 | | | | | |
| Acetone [b] | | 68.4 | 10 | 2.4 | ug/l | SW846 8260C |
| Benzene | | 1.8 | 0.50 | 0.32 | ug/l | SW846 8260C |
| Chloromethane | | 3.2 | 2.0 | 1.1 | ug/l | SW846 8260C |
| Di-n-butyl phthalate | | 0.85 JB | 5.3 | 0.18 | ug/l | SW846 8270D |
| bis(2-Ethylhexyl)phthalate | | 0.68 JB | 2.1 | 0.35 | ug/l | SW846 8270D |
| Phenanthrene | | 0.042 JB | 0.053 | 0.013 | ug/l | SW846 8270D BY SIM |
| MC29574-4 | MW11-ROX-040714-EB | | | | | |
| Di-n-butyl phthalate | | 0.64 JB | 5.1 | 0.18 | ug/l | SW846 8270D |
| bis(2-Ethylhexyl)phthalate | | 0.61 J | 2.0 | 0.34 | ug/l | SW846 8270D |
| Phenanthrene | | 0.021 JB | 0.051 | 0.013 | ug/l | SW846 8270D BY SIM |
| MC29574-5 | MW11-ROX-040714 | | | | | |
| Benzene | | 1.4 | 0.50 | 0.32 | ug/l | SW846 8260C |
| Di-n-butyl phthalate | | 0.70 JB | 5.6 | 0.19 | ug/l | SW846 8270D |
| bis(2-Ethylhexyl)phthalate | | 5.6 B | 2.2 | 0.37 | ug/l | SW846 8270D |
| Phenanthrene | | 0.023 JB | 0.056 | 0.014 | ug/l | SW846 8270D BY SIM |
| MC29574-6 | TB-ROX-040714-HCL | | | | | |
| No hits reported in this sample. | | | | | | |
| MC29574-7 | TB-ROX-040714-ST | | | | | |
| No hits reported in this sample. | | | | | | |

# Summary of Hits

**Job Number:** MC29574
**Account:** Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Collected:** 04/07/14



| Lab Sample ID<br>Analyte | Client Sample ID | Result/<br>Qual | RL | MDL | Units | Method |
|---|---|---|---|---|---|---|

(a) Sample re-extracted beyond recommended holding time.
(b) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

## Sample Results

Report of Analysis

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW1-ROX-040714 | | |
| **Lab Sample ID:** | MC29574-1 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V29680.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |
| 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 [a] | ND | 10 | 2.4 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile [a] | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | 0.66 | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) [a] | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-040714 | | |
| **Lab Sample ID:** | MC29574-1 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane [a] | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-040714 | | |
| **Lab Sample ID:** | MC29574-1 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 92% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 86% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 92% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040714 | | |
| **Lab Sample ID:** | MC29574-1 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38055.D | 1 | 04/11/14 | KR | 04/09/14 | OP37522 | MSR1403 |
| Run #2 [a] | R38284.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 920 ml | 1.0 ml |
| Run #2 | 870 ml | 1.0 ml |

**ABN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | 3.0 [b] | 11 | 2.9 | ug/l | J |
| 95-57-8 | 2-Chlorophenol | ND [b] | 5.7 | 0.36 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND [b] | 11 | 0.95 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND [b] | 11 | 0.46 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND [b] | 11 | 0.64 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND [b] | 23 | 2.9 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND [b] | 11 | 2.2 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND [b] | 11 | 0.26 | ug/l | |
| | 3&4-Methylphenol | ND [b] | 11 | 0.54 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND [b] | 11 | 3.3 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND [b] | 23 | 0.61 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND [b] | 11 | 1.3 | ug/l | |
| 108-95-2 | Phenol | ND [b] | 5.7 | 0.35 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND [b] | 11 | 0.43 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND [b] | 11 | 0.20 | ug/l | |
| 62-53-3 | Aniline | ND | 11 | 0.69 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.4 | 0.51 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.4 | 0.58 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 11 | 2.5 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.4 | 0.34 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 11 | 0.61 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.4 | 0.31 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.4 | 0.38 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.4 | 0.36 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.4 | 0.27 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.4 | 0.26 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 11 | 0.50 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 11 | 0.33 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.4 | 0.29 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.2 | 0.28 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.29 | 5.4 | 0.19 | 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:** | MW1-ROX-040714 | | |
| **Lab Sample ID:** | MC29574-1 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.22 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.4 | 0.37 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.2 | 0.36 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.4 | 0.31 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 11 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.4 | 0.33 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.4 | 0.49 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 11 | 0.43 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 11 | 1.5 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 11 | 2.3 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.4 | 0.43 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.4 | 1.1 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.4 | 0.44 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.4 | 0.21 | ug/l | |
| 110-86-1 | Pyridine | ND | 11 | 0.56 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 1% [c] | 47% | 15-110% |
| 4165-62-2 | Phenol-d5 | 1% [c] | 29% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 3% [c] | 92% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 71% | 74% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 68% | 78% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 87% | 94% | 30-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile | | 0 | ug/l | |
| | Total TIC, Semi-Volatile | | 0 | ug/l | |

(a) Sample re-extracted beyond recommended holding time.
(b) Result is from Run# 2
(c) Outside control limits. Sample re-extracted/reanalyzed.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates 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-040714 | | |
| **Lab Sample ID:** | MC29574-1 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38026.D | 1 | 04/10/14 | KR | 04/09/14 | OP37523 | MSR1402 |
| 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 | 0.075 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.11 | 0.054 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.11 | 0.10 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.054 | 0.021 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.11 | 0.031 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.054 | 0.034 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.11 | 0.029 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.11 | 0.042 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.11 | 0.026 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.11 | 0.035 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.11 | 0.044 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.11 | 0.11 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.11 | 0.033 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.22 | 0.054 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.22 | 0.081 | ug/l | |
| 85-01-8 | Phenanthrene | 0.023 | 0.054 | 0.014 | ug/l | JB |
| 129-00-0 | Pyrene | ND | 0.11 | 0.042 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 102% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 72% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 85% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040714 | | |
| **Lab Sample ID:** | MC29574-1 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89187.D | 1 | 04/11/14 | SZ | 04/10/14 | OP37559 | GYZ7539 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 37.4 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0051 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 101% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 75% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040714 | | |
| **Lab Sample ID:** | MC29574-2 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V29681.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |
| 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 [a] | ND | 10 | 2.4 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile [a] | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | 4.4 | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) [a] | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-040714 | | |
| **Lab Sample ID:** | MC29574-2 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane [a] | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-040714 | | |
| **Lab Sample ID:** | MC29574-2 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 93% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 88% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 93% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040714 | | |
| **Lab Sample ID:** | MC29574-2 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38158.D | 1 | 04/15/14 | WK | 04/11/14 | OP37571 | MSR1407 |
| 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 | 0.34 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 11 | 0.92 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 11 | 0.44 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 11 | 0.62 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 22 | 2.8 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 11 | 2.1 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 11 | 0.25 | ug/l | |
| | 3&4-Methylphenol | ND | 11 | 0.52 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 11 | 3.2 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 22 | 0.59 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 11 | 1.2 | ug/l | |
| 108-95-2 | Phenol | ND | 5.6 | 0.34 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 11 | 0.41 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 11 | 0.19 | ug/l | |
| 62-53-3 | Aniline | ND | 11 | 0.71 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.6 | 0.52 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.6 | 0.59 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 11 | 2.5 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.6 | 0.35 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 11 | 0.62 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.6 | 0.32 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.6 | 0.39 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.6 | 0.37 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.6 | 0.28 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.6 | 0.27 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 11 | 0.51 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 11 | 0.33 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.6 | 0.30 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.2 | 0.29 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.62 | 5.6 | 0.19 | ug/l | JB |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.6 | 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:** | MW9-ROX-040714 | | |
| **Lab Sample ID:** | MC29574-2 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.22 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.6 | 0.38 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 0.54 | 2.2 | 0.37 | ug/l | JB |
| 118-74-1 | Hexachlorobenzene | ND | 5.6 | 0.32 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 11 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.6 | 0.34 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.6 | 0.50 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 11 | 0.44 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 11 | 1.5 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 11 | 2.4 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.6 | 0.43 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.6 | 1.1 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.6 | 0.45 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.6 | 0.21 | ug/l | |
| 110-86-1 | Pyridine | ND | 11 | 0.57 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 38% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 25% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 68% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 64% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 63% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 82% | | 30-130% |

| 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-040714 | | |
| **Lab Sample ID:** | MC29574-2 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38027.D | 1 | 04/10/14 | KR | 04/09/14 | OP37523 | MSR1402 |
| 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 | 0.077 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.11 | 0.055 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.11 | 0.10 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | 0.024 | 0.056 | 0.022 | ug/l | J |
| 50-32-8 | Benzo(a)pyrene | ND | 0.11 | 0.032 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.056 | 0.035 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.11 | 0.030 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.11 | 0.043 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.11 | 0.026 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.11 | 0.035 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.11 | 0.045 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.11 | 0.11 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.11 | 0.034 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.22 | 0.055 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 0.10 | 0.22 | 0.082 | ug/l | J |
| 85-01-8 | Phenanthrene | 0.056 | 0.056 | 0.014 | ug/l | B |
| 129-00-0 | Pyrene | ND | 0.11 | 0.043 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 68% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 63% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 87% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040714 | | |
| **Lab Sample ID:** | MC29574-2 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89188.D | 1 | 04/11/14 | SZ | 04/10/14 | OP37559 | GYZ7539 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.8 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0052 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 95% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 77% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040714 | | |
| **Lab Sample ID:** | MC29574-3 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V29682.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |
| 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 [a] | 68.4 | 10 | 2.4 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile [a] | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | 1.8 | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) [a] | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | 3.2 | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-040714 | | |
| **Lab Sample ID:** | MC29574-3 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane [a] | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-040714 | | |
| **Lab Sample ID:** | MC29574-3 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 80% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 90% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 94% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040714 | | |
| **Lab Sample ID:** | MC29574-3 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38159.D | 1 | 04/15/14 | WK | 04/11/14 | OP37571 | MSR1407 |
| 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 | 0.33 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 11 | 0.87 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 11 | 0.42 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 11 | 0.59 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 21 | 2.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 11 | 2.0 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 11 | 0.24 | ug/l | |
| | 3&4-Methylphenol | ND | 11 | 0.49 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 11 | 3.0 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 21 | 0.56 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 11 | 1.2 | ug/l | |
| 108-95-2 | Phenol | ND | 5.3 | 0.32 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 11 | 0.39 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 11 | 0.18 | ug/l | |
| 62-53-3 | Aniline | ND | 11 | 0.67 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.3 | 0.50 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.3 | 0.56 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 11 | 2.4 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.3 | 0.33 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 11 | 0.59 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.3 | 0.30 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.3 | 0.37 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.3 | 0.35 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.3 | 0.26 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.3 | 0.25 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 11 | 0.48 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 11 | 0.32 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.3 | 0.28 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.1 | 0.27 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.85 | 5.3 | 0.18 | ug/l | JB |
| 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:** | MW10-ROX-040714 | | |
| **Lab Sample ID:** | MC29574-3 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.21 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.3 | 0.36 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 0.68 | 2.1 | 0.35 | ug/l | JB |
| 118-74-1 | Hexachlorobenzene | ND | 5.3 | 0.30 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 11 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.3 | 0.32 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.3 | 0.47 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 11 | 0.42 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 11 | 1.4 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 11 | 2.3 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.3 | 0.41 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.3 | 1.1 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.3 | 0.42 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.3 | 0.20 | ug/l | |
| 110-86-1 | Pyridine | ND | 11 | 0.54 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 39% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 25% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 75% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 67% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 66% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 92% | | 30-130% |

| 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-040714 | | |
| **Lab Sample ID:** | MC29574-3 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38028.D | 1 | 04/10/14 | KR | 04/09/14 | OP37523 | MSR1402 |
| 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 | 0.073 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.11 | 0.052 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.11 | 0.097 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.053 | 0.021 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.11 | 0.030 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.053 | 0.033 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.11 | 0.028 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.11 | 0.041 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.11 | 0.025 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.11 | 0.034 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.11 | 0.043 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.11 | 0.10 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.11 | 0.032 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.21 | 0.053 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.21 | 0.078 | ug/l | |
| 85-01-8 | Phenanthrene | 0.042 | 0.053 | 0.013 | ug/l | JB |
| 129-00-0 | Pyrene | ND | 0.11 | 0.040 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 65% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 64% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 85% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040714 | | |
| **Lab Sample ID:** | MC29574-3 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89189.D | 1 | 04/11/14 | SZ | 04/10/14 | OP37559 | GYZ7539 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.2 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.015 | 0.0052 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.015 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 79% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 70% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040714-EB | | |
| **Lab Sample ID:** | MC29574-4 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Equipment Blank | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V29678.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |
| 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 [a] | ND | 10 | 2.4 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile [a] | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) [a] | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-040714-EB | | |
| **Lab Sample ID:** | MC29574-4 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Equipment Blank | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane [a] | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-040714-EB | | |
| **Lab Sample ID:** | MC29574-4 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Equipment Blank | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 91% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 84% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 92% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040714-EB | | |
| **Lab Sample ID:** | MC29574-4 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Equipment Blank | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38058.D | 1 | 04/11/14 | KR | 04/09/14 | OP37522 | MSR1403 |
| 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 | 0.32 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 10 | 0.84 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 10 | 0.40 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 10 | 0.57 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 20 | 2.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 2.0 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 10 | 0.23 | ug/l | |
| | 3&4-Methylphenol | ND | 10 | 0.48 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 10 | 2.9 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 20 | 0.55 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 10 | 1.1 | ug/l | |
| 108-95-2 | Phenol | ND | 5.1 | 0.31 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 10 | 0.38 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 10 | 0.18 | ug/l | |
| 62-53-3 | Aniline | ND | 10 | 0.65 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.1 | 0.48 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.1 | 0.54 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 10 | 2.3 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.1 | 0.32 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 10 | 0.57 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.1 | 0.29 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.1 | 0.36 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.1 | 0.34 | 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 | 0.24 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 10 | 0.47 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 10 | 0.31 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.1 | 0.27 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.0 | 0.26 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.64 | 5.1 | 0.18 | ug/l | JB |
| 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:** | MW11-ROX-040714-EB | | |
| **Lab Sample ID:** | MC29574-4 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Equipment Blank | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.20 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.1 | 0.35 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 0.61 | 2.0 | 0.34 | ug/l | J |
| 118-74-1 | Hexachlorobenzene | ND | 5.1 | 0.30 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 10 | 1.3 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.1 | 0.31 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.1 | 0.46 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 0.40 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 1.4 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 2.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.1 | 0.40 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.1 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.1 | 0.41 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.1 | 0.20 | ug/l | |
| 110-86-1 | Pyridine | ND | 10 | 0.53 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 31% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 21% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 49% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 50% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 46% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 75% | | 30-130% |

| 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-040714-EB | | |
| **Lab Sample ID:** | MC29574-4 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Equipment Blank | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38029.D | 1 | 04/10/14 | KR | 04/09/14 | OP37523 | MSR1402 |
| 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 | 0.070 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.10 | 0.051 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.10 | 0.094 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.051 | 0.020 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.10 | 0.029 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.051 | 0.032 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.10 | 0.027 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.10 | 0.039 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.10 | 0.024 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.10 | 0.033 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.10 | 0.041 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.10 | 0.10 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.10 | 0.031 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.20 | 0.051 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.20 | 0.076 | ug/l | |
| 85-01-8 | Phenanthrene | 0.021 | 0.051 | 0.013 | ug/l | JB |
| 129-00-0 | Pyrene | ND | 0.10 | 0.039 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 51% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 47% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 76% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040714-EB | | |
| **Lab Sample ID:** | MC29574-4 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Equipment Blank | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89190.D | 1 | 04/11/14 | SZ | 04/10/14 | OP37559 | GYZ7539 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.2 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.015 | 0.0052 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.015 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 97% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 80% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040714 | | |
| **Lab Sample ID:** | MC29574-5 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V29683.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |
| 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 [a] | ND | 10 | 2.4 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile [a] | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | 1.4 | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) [a] | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-040714 | | |
| **Lab Sample ID:** | MC29574-5 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane [a] | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-040714 | | |
| **Lab Sample ID:** | MC29574-5 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 91% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 90% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 93% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040714 | | |
| **Lab Sample ID:** | MC29574-5 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38160.D | 1 | 04/15/14 | WK | 04/11/14 | OP37571 | MSR1407 |
| 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 | 0.34 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 11 | 0.92 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 11 | 0.44 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 11 | 0.62 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 22 | 2.8 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 11 | 2.1 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 11 | 0.25 | ug/l | |
| | 3&4-Methylphenol | ND | 11 | 0.52 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 11 | 3.2 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 22 | 0.59 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 11 | 1.2 | ug/l | |
| 108-95-2 | Phenol | ND | 5.6 | 0.34 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 11 | 0.41 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 11 | 0.19 | ug/l | |
| 62-53-3 | Aniline | ND | 11 | 0.71 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.6 | 0.52 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.6 | 0.59 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 11 | 2.5 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.6 | 0.35 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 11 | 0.62 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.6 | 0.32 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.6 | 0.39 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.6 | 0.37 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.6 | 0.28 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.6 | 0.27 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 11 | 0.51 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 11 | 0.33 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.6 | 0.30 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.2 | 0.29 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.70 | 5.6 | 0.19 | ug/l | JB |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.6 | 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-040714 | | |
| **Lab Sample ID:** | MC29574-5 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.22 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.6 | 0.38 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 5.6 | 2.2 | 0.37 | ug/l | B |
| 118-74-1 | Hexachlorobenzene | ND | 5.6 | 0.32 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 11 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.6 | 0.34 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.6 | 0.50 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 11 | 0.44 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 11 | 1.5 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 11 | 2.4 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.6 | 0.43 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.6 | 1.1 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.6 | 0.45 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.6 | 0.21 | ug/l | |
| 110-86-1 | Pyridine | ND | 11 | 0.57 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 40% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 26% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 76% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 71% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 73% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 96% | | 30-130% |

| 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-040714 | | |
| **Lab Sample ID:** | MC29574-5 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38030.D | 1 | 04/10/14 | KR | 04/09/14 | OP37523 | MSR1402 |
| 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 | 0.077 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.11 | 0.055 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.11 | 0.10 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.056 | 0.022 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.11 | 0.032 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.056 | 0.035 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.11 | 0.030 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.11 | 0.043 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.11 | 0.026 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.11 | 0.035 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.11 | 0.045 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.11 | 0.11 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.11 | 0.034 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.22 | 0.055 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.22 | 0.082 | ug/l | |
| 85-01-8 | Phenanthrene | 0.023 | 0.056 | 0.014 | ug/l | JB |
| 129-00-0 | Pyrene | ND | 0.11 | 0.043 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 45% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 61% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 77% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040714 | | |
| **Lab Sample ID:** | MC29574-5 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89191.D | 1 | 04/11/14 | SZ | 04/10/14 | OP37559 | GYZ7539 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.8 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0052 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 91% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 82% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040714-HCL | | |
| **Lab Sample ID:** | MC29574-6 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V29675.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |
| 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 [a] | ND | 10 | 2.4 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile [a] | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) [a] | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-040714-HCL | | |
| **Lab Sample ID:** | MC29574-6 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane [a] | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-040714-HCL | | |
| **Lab Sample ID:** | MC29574-6 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 88% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 86% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 91% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040714-ST | | |
| **Lab Sample ID:** | MC29574-7 | **Date Sampled:** | 04/07/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/08/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89192.D | 1 | 04/11/14 | SZ | 04/10/14 | OP37559 | GYZ7539 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 37.6 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0050 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 103% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 82% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

## Misc. Forms



# Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

LAB (LOCATION)
☐ XENCO (_____)
☐ CALSCIENCE (_____)
☑ OTHER Accutest Labs: 495 Technology Ctr W Marlborough, MA 01752 (508-481-6200)
☐ SPL (_____)
Lab Vendor #
Lab Vendor # (_____)

# Shell Oil Products Chain Of Custody Record

URS

Please Check Appropriate Box:
☑ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SD&CM ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER _____

Print Bill To Contact Name: Bob Billman
INCIDENT # (ENV SERVICES): 9 7 2 1 6 6 4 0
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 4-7-14
PO #
SAP #: 3 4 0 0 6 1
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 / 21562973.03002
PROJECT CONTACT (Hardcopy or PDF Report to): Elizabeth Kunkel, Wendy Pennington, Bob Billman
SAMPLER NAME(S) (Print): M. Manske, D. Mattingly
LAB USE ONLY: mc29574
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: bob.billman@urs.com; elizabeth.kunkel@urs.com; wendy.pennington@urs.com

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.
*Please contact Elizabeth Kunkel regarding SVOC extractions.

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD 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 | PID (ppm) | Container PID Readings or Laboratory Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -1 | MW1-ROX-040714 | 4/7/14 | 0950 | water | 2 | | | 2 | 2 | 6 | X | X | X | X | 0 | |
| -1S | MW1-ROX-040714MS | | 0950 | | 2 | | | 2 | 2 | 6 | X | X | X | X | | |
| -1SD | MW1-ROX-040714MSD | | 0950 | | 2 | | | 2 | 2 | 6 | X | X | X | X | | |
| -2 | MW9-ROX-040714 | | 1115 | | 2 | | | 2 | 2 | 6 | X | X | X | X | | |
| -3 | MW10-ROX-040714 | | 1405 | | 2 | | | 2 | 2 | 6 | X | X | X | X | | |
| -4 | MW11-ROX-040714-EB | | 1420 | | 2 | | | 2 | 2 | 6 | X | X | X | X | | |
| -5 | MW11-ROX-040714 | | 1545 | | 2 | | | 2 | 2 | 6 | X | X | X | X | | 18B, 4I2 |
| -6 | TB-ROX-040714-HCL | | 0000 | | 2 | | | | | 2 | X | | | | | |
| -7 | TB-ROX-040714-ST | ↓ | 0000 | ↓ | | | | | 2 | 2 | | X | | | ↓ | |

FIELD NOTES:
TEMPERATURE ON RECEIPT C°

| Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|---|---|---|---|
| M. Manske | FED EX | 4-7-14 | 1730 |
| FED EX | | 4-8-14 | 930 |
| | | | |

05/2/06 Revision

1.4, 0.4°c

MC29574: Chain of Custody
Page 1 of 2

# Accutest Laboratories Sample Receipt Summary

**Accutest Job Number:** MC29574 **Client:** URS **Immediate Client Services Action Required:** No

**Date / Time Received:** 4/8/2014 **Delivery Method:** **Client Service Action Required at Login:** No

**Project:** 900 SOUTH CENTRAL AVE **No. Coolers:** 2 **Airbill #'s:**

| 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. Cooler temp verification: | Infared gun | | |
| 3. Cooler media: | Ice (bag) | | |

| 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
www/accutest.com



MC29574: Chain of Custody
Page 2 of 2

# Internal Sample Tracking Chronicle

Shell Oil

Job No: MC29574

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample Number | Method | Analyzed | By | Prepped | By | Test Codes |
|---|---|---|---|---|---|---|
| MC29574-1 Collected: 07-APR-14 09:50 By: MMDM Received: 08-APR-14 By: MW1-ROX-040714 | | | | | | |
| MC29574-1 | SW846 8270D BY SIM | 10-APR-14 16:26 | KR | 09-APR-14 | MEW | B8270SIMSL |
| MC29574-1 | SW846 8270D | 11-APR-14 05:19 | KR | 09-APR-14 | AZ | AB8270SL+ |
| MC29574-1 | SW846 8260C | 11-APR-14 14:18 | AMY | | | V8260SL+ |
| MC29574-1 | SW846 8011 | 11-APR-14 19:03 | SZ | 10-APR-14 | AW | V8011SL |
| MC29574-1 | SW846 8270D | 21-APR-14 12:12 | WK | 18-APR-14 | MD | AB8270SL+ |
| MC29574-2 Collected: 07-APR-14 11:15 By: MMDM Received: 08-APR-14 By: MW9-ROX-040714 | | | | | | |
| MC29574-2 | SW846 8270D BY SIM | 10-APR-14 16:53 | KR | 09-APR-14 | MEW | B8270SIMSL |
| MC29574-2 | SW846 8260C | 11-APR-14 14:44 | AMY | | | V8260SL+ |
| MC29574-2 | SW846 8011 | 11-APR-14 19:29 | SZ | 10-APR-14 | AW | V8011SL |
| MC29574-2 | SW846 8270D | 15-APR-14 01:42 | WK | 11-APR-14 | AJ | AB8270SL+ |
| MC29574-3 Collected: 07-APR-14 14:05 By: MMDM Received: 08-APR-14 By: MW10-ROX-040714 | | | | | | |
| MC29574-3 | SW846 8270D BY SIM | 10-APR-14 17:19 | KR | 09-APR-14 | MEW | B8270SIMSL |
| MC29574-3 | SW846 8260C | 11-APR-14 15:10 | AMY | | | V8260SL+ |
| MC29574-3 | SW846 8011 | 11-APR-14 19:55 | SZ | 10-APR-14 | AW | V8011SL |
| MC29574-3 | SW846 8270D | 15-APR-14 02:08 | WK | 11-APR-14 | AJ | AB8270SL+ |
| MC29574-4 Collected: 07-APR-14 14:20 By: MMDM Received: 08-APR-14 By: MW11-ROX-040714-EB | | | | | | |
| MC29574-4 | SW846 8270D BY SIM | 10-APR-14 17:46 | KR | 09-APR-14 | MEW | B8270SIMSL |
| MC29574-4 | SW846 8270D | 11-APR-14 06:38 | KR | 09-APR-14 | MEW | AB8270SL+ |
| MC29574-4 | SW846 8260C | 11-APR-14 13:26 | AMY | | | V8260SL+ |
| MC29574-4 | SW846 8011 | 11-APR-14 20:21 | SZ | 10-APR-14 | AW | V8011SL |
| MC29574-5 Collected: 07-APR-14 15:45 By: MMDM Received: 08-APR-14 By: MW11-ROX-040714 | | | | | | |
| MC29574-5 | SW846 8270D BY SIM | 10-APR-14 18:12 | KR | 09-APR-14 | MEW | B8270SIMSL |
| MC29574-5 | SW846 8260C | 11-APR-14 15:36 | AMY | | | V8260SL+ |
| MC29574-5 | SW846 8011 | 11-APR-14 20:47 | SZ | 10-APR-14 | AW | V8011SL |
| MC29574-5 | SW846 8270D | 15-APR-14 02:34 | WK | 11-APR-14 | AJ | AB8270SL+ |

# Internal Sample Tracking Chronicle

Shell Oil

Job No: MC29574

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL



| Sample Number | Method | Analyzed | By | Prepped | By | Test Codes |
|---|---|---|---|---|---|---|
| MC29574-6 Collected: 07-APR-14 00:00 By: MMDM Received: 08-APR-14 By: TB-ROX-040714-HCL | | | | | | |
| MC29574-6 | SW846 8260C | 11-APR-14 12:07 | AMY | | | V8260SL+ |
| MC29574-7 Collected: 07-APR-14 00:00 By: MMDM Received: 08-APR-14 By: TB-ROX-040714-ST | | | | | | |
| MC29574-7 | SW846 8011 | 11-APR-14 21:15 | SZ | 10-APR-14 | AW | V8011SL |

# SGS Accutest Internal Chain of Custody



**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Received:** 04/08/14



| Sample.Bottle Number | Transfer FROM | Transfer TO | Date/Time | Reason |
|---|---|---|---|---|
| MC29574-1.1 | Walk In Ref #22 | Alireza Zeighami | 04/09/14 10:41 | Retrieve from Storage |
| MC29574-1.1 | Alireza Zeighami | | 04/09/14 14:45 | Depleted |
| MC29574-1.2 | Walk In Ref #22 | Alireza Zeighami | 04/09/14 10:41 | Retrieve from Storage |
| MC29574-1.2 | Alireza Zeighami | | 04/09/14 14:45 | Depleted |
| MC29574-1.3 | Walk In Ref #22 | Alireza Zeighami | 04/09/14 10:41 | Retrieve from Storage |
| MC29574-1.3 | Alireza Zeighami | | 04/09/14 14:45 | Depleted |
| MC29574-1.5 | Walk In Ref #22 | Thomas Abruzzise | 04/18/14 19:10 | Retrieve from Storage |
| MC29574-1.5 | Thomas Abruzzise | | 04/30/14 21:28 | Depleted |
| MC29574-1.8 | VOC Ref #4 | Amy Min Yang | 04/11/14 11:26 | Retrieve from Storage |
| MC29574-1.8 | Amy Min Yang | GCMSV | 04/11/14 11:26 | Load on Instrument |
| MC29574-1.8 | GCMSV | Amy Min Yang | 04/14/14 12:55 | Unload from Instrument |
| MC29574-1.8 | Amy Min Yang | VOC Ref #4 | 04/14/14 12:55 | Return to Storage |
| MC29574-1.8 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29574-1.9 | VOC Ref #4 | Amy Min Yang | 04/11/14 11:26 | Retrieve from Storage |
| MC29574-1.9 | Amy Min Yang | GCMSV | 04/11/14 11:26 | Load on Instrument |
| MC29574-1.9 | GCMSV | Amy Min Yang | 04/14/14 12:55 | Unload from Instrument |
| MC29574-1.9 | Amy Min Yang | VOC Ref #4 | 04/14/14 12:55 | Return to Storage |
| MC29574-1.9 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29574-1.10 | VOC Ref #4 | Amy Min Yang | 04/11/14 11:26 | Retrieve from Storage |
| MC29574-1.10 | Amy Min Yang | GCMSV | 04/11/14 11:26 | Load on Instrument |
| MC29574-1.10 | GCMSV | Amy Min Yang | 04/14/14 12:55 | Unload from Instrument |
| MC29574-1.10 | Amy Min Yang | VOC Ref #4 | 04/14/14 12:55 | Return to Storage |
| MC29574-1.10 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29574-1.12 | VOC Ref #4 | Amy Min Yang | 04/11/14 11:26 | Retrieve from Storage |
| MC29574-1.12 | Amy Min Yang | GCMSV | 04/11/14 11:26 | Load on Instrument |
| MC29574-1.12 | GCMSV | Amy Min Yang | 04/14/14 12:55 | Unload from Instrument |
| MC29574-1.12 | Amy Min Yang | VOC Ref #4 | 04/14/14 12:55 | Return to Storage |
| MC29574-1.12 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29574-1.13 | VOC Ref #4 | Marc Tahtamoni | 04/10/14 14:38 | Retrieve from Storage |
| MC29574-1.13 | Marc Tahtamoni | | 04/10/14 20:16 | Depleted |
| MC29574-1.16 | VOC Ref #4 | Marc Tahtamoni | 04/10/14 14:38 | Retrieve from Storage |
| MC29574-1.16 | Marc Tahtamoni | | 04/10/14 20:16 | Depleted |
| MC29574-1.18 | VOC Ref #4 | Marc Tahtamoni | 04/10/14 14:38 | Retrieve from Storage |
| MC29574-1.18 | Marc Tahtamoni | | 04/10/14 20:16 | Depleted |

# SGS Accutest Internal Chain of Custody

**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Received:** 04/08/14



| Sample.Bottle Number | Transfer FROM | Transfer TO | Date/Time | Reason |
|---|---|---|---|---|
| MC29574-2.1 | Walk In Ref #22 | Michael DiBuono | 04/11/14 13:55 | Retrieve from Storage |
| MC29574-2.1 | Michael DiBuono | | 05/15/14 07:58 | Depleted |
| MC29574-2.2 | Walk In Ref #22 | Alireza Zeighami | 04/09/14 10:41 | Retrieve from Storage |
| MC29574-2.2 | Alireza Zeighami | | 04/09/14 14:45 | Depleted |
| MC29574-2.3 | VOC Ref #4 | Amy Min Yang | 04/11/14 11:26 | Retrieve from Storage |
| MC29574-2.3 | Amy Min Yang | GCMSV | 04/11/14 11:26 | Load on Instrument |
| MC29574-2.3 | GCMSV | Amy Min Yang | 04/14/14 12:55 | Unload from Instrument |
| MC29574-2.3 | Amy Min Yang | VOC Ref #4 | 04/14/14 12:55 | Return to Storage |
| MC29574-2.3 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29574-2.5 | VOC Ref #4 | Marc Tahtamoni | 04/10/14 14:38 | Retrieve from Storage |
| MC29574-2.5 | Marc Tahtamoni | | 04/10/14 20:16 | Depleted |
| MC29574-3.1 | Walk In Ref #22 | Michael DiBuono | 04/11/14 13:55 | Retrieve from Storage |
| MC29574-3.1 | Michael DiBuono | | 05/15/14 07:58 | Depleted |
| MC29574-3.2 | Walk In Ref #22 | Alireza Zeighami | 04/09/14 10:41 | Retrieve from Storage |
| MC29574-3.2 | Alireza Zeighami | | 04/09/14 14:45 | Depleted |
| MC29574-3.4 | VOC Ref #4 | Amy Min Yang | 04/11/14 11:26 | Retrieve from Storage |
| MC29574-3.4 | Amy Min Yang | GCMSV | 04/11/14 11:26 | Load on Instrument |
| MC29574-3.4 | GCMSV | Amy Min Yang | 04/14/14 12:55 | Unload from Instrument |
| MC29574-3.4 | Amy Min Yang | VOC Ref #4 | 04/14/14 12:55 | Return to Storage |
| MC29574-3.4 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29574-3.6 | VOC Ref #4 | Marc Tahtamoni | 04/10/14 14:38 | Retrieve from Storage |
| MC29574-3.6 | Marc Tahtamoni | | 04/10/14 20:16 | Depleted |
| MC29574-4.2 | Walk In Ref #22 | Alireza Zeighami | 04/09/14 10:41 | Retrieve from Storage |
| MC29574-4.2 | Alireza Zeighami | | 04/09/14 14:45 | Depleted |
| MC29574-4.3 | VOC Ref #4 | Amy Min Yang | 04/11/14 11:26 | Retrieve from Storage |
| MC29574-4.3 | Amy Min Yang | GCMSV | 04/11/14 11:26 | Load on Instrument |
| MC29574-4.3 | GCMSV | Amy Min Yang | 04/14/14 12:55 | Unload from Instrument |
| MC29574-4.3 | Amy Min Yang | VOC Ref #4 | 04/14/14 12:55 | Return to Storage |
| MC29574-4.3 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29574-4.5 | VOC Ref #4 | Marc Tahtamoni | 04/10/14 14:38 | Retrieve from Storage |
| MC29574-4.5 | Marc Tahtamoni | | 04/10/14 20:16 | Depleted |
| MC29574-5.1 | Walk In Ref #22 | Alireza Zeighami | 04/09/14 10:41 | Retrieve from Storage |

# SGS Accutest Internal Chain of Custody



**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Received:** 04/08/14

| Sample.Bottle Number | Transfer FROM | Transfer TO | Date/Time | Reason |
|---|---|---|---|---|
| MC29574-5.1 | Alireza Zeighami | | 04/09/14 14:45 | Depleted |
| MC29574-5.2 | Walk In Ref #22 | Michael DiBuono | 04/11/14 13:55 | Retrieve from Storage |
| MC29574-5.2 | Michael DiBuono | | 05/15/14 07:58 | Depleted |
| MC29574-5.4 | VOC Ref #4 | Amy Min Yang | 04/11/14 11:26 | Retrieve from Storage |
| MC29574-5.4 | Amy Min Yang | GCMSV | 04/11/14 11:26 | Load on Instrument |
| MC29574-5.4 | GCMSV | Amy Min Yang | 04/14/14 12:55 | Unload from Instrument |
| MC29574-5.4 | Amy Min Yang | VOC Ref #4 | 04/14/14 12:55 | Return to Storage |
| MC29574-5.4 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29574-5.6 | VOC Ref #4 | Marc Tahtamoni | 04/10/14 14:38 | Retrieve from Storage |
| MC29574-5.6 | Marc Tahtamoni | | 04/10/14 20:16 | Depleted |
| MC29574-6.1 | VOC Ref #4 | Amy Min Yang | 04/11/14 11:26 | Retrieve from Storage |
| MC29574-6.1 | Amy Min Yang | GCMSV | 04/11/14 11:26 | Load on Instrument |
| MC29574-6.1 | GCMSV | Amy Min Yang | 04/14/14 12:55 | Unload from Instrument |
| MC29574-6.1 | Amy Min Yang | VOC Ref #4 | 04/14/14 12:55 | Return to Storage |
| MC29574-6.1 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29574-7.2 | VOC Ref #4 | Marc Tahtamoni | 04/10/14 14:38 | Retrieve from Storage |
| MC29574-7.2 | Marc Tahtamoni | | 04/10/14 20:16 | Depleted |

## 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:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1111-MB | V29674.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29574-1, MC29574-2, MC29574-3, MC29574-4, MC29574-5, MC29574-6

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 2.4 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 2.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |

# Method Blank Summary



**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1111-MB | V29674.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29574-1, MC29574-2, MC29574-3, MC29574-4, MC29574-5, MC29574-6

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | ug/l | |

# Method Blank Summary

**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1111-MB | V29674.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29574-1, MC29574-2, MC29574-3, MC29574-4, MC29574-5, MC29574-6

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 86% | 70-130% |
| 2037-26-5 | Toluene-D8 | 87% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 91% | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

# Blank Spike Summary



**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1111-BS | V29671.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29574-1, MC29574-2, MC29574-3, MC29574-4, MC29574-5, MC29574-6

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 50 | 39.2 | 78 | 70-130 |
| 107-02-8 | Acrolein | 250 | 371 | 148* [a] | 70-130 |
| 107-13-1 | Acrylonitrile | 50 | 40.3 | 81 | 70-130 |
| 71-43-2 | Benzene | 50 | 48.3 | 97 | 70-130 |
| 108-86-1 | Bromobenzene | 50 | 54.7 | 109 | 70-130 |
| 74-97-5 | Bromochloromethane | 50 | 45.7 | 91 | 70-130 |
| 75-27-4 | Bromodichloromethane | 50 | 51.4 | 103 | 70-130 |
| 75-25-2 | Bromoform | 50 | 45.9 | 92 | 70-130 |
| 74-83-9 | Bromomethane | 50 | 48.4 | 97 | 70-130 |
| 78-93-3 | 2-Butanone (MEK) | 50 | 42.9 | 86 | 70-130 |
| 104-51-8 | n-Butylbenzene | 50 | 55.0 | 110 | 70-130 |
| 135-98-8 | sec-Butylbenzene | 50 | 55.0 | 110 | 70-130 |
| 98-06-6 | tert-Butylbenzene | 50 | 55.5 | 111 | 70-130 |
| 75-15-0 | Carbon disulfide | 50 | 43.4 | 87 | 70-130 |
| 56-23-5 | Carbon tetrachloride | 50 | 58.3 | 117 | 70-130 |
| 108-90-7 | Chlorobenzene | 50 | 50.7 | 101 | 70-130 |
| 75-00-3 | Chloroethane | 50 | 50.1 | 100 | 70-130 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 50 | 93.1 | 186* [a] | 70-130 |
| 67-66-3 | Chloroform | 50 | 46.8 | 94 | 70-130 |
| 74-87-3 | Chloromethane | 50 | 48.0 | 96 | 70-130 |
| 95-49-8 | o-Chlorotoluene | 50 | 52.0 | 104 | 70-130 |
| 106-43-4 | p-Chlorotoluene | 50 | 54.1 | 108 | 70-130 |
| 124-48-1 | Dibromochloromethane | 50 | 48.2 | 96 | 70-130 |
| 95-50-1 | 1,2-Dichlorobenzene | 50 | 49.6 | 99 | 70-130 |
| 541-73-1 | 1,3-Dichlorobenzene | 50 | 52.1 | 104 | 70-130 |
| 106-46-7 | 1,4-Dichlorobenzene | 50 | 52.3 | 105 | 70-130 |
| 75-71-8 | Dichlorodifluoromethane | 50 | 44.2 | 88 | 70-130 |
| 75-34-3 | 1,1-Dichloroethane | 50 | 47.0 | 94 | 70-130 |
| 107-06-2 | 1,2-Dichloroethane | 50 | 49.0 | 98 | 70-130 |
| 75-35-4 | 1,1-Dichloroethene | 50 | 50.0 | 100 | 70-130 |
| 156-59-2 | cis-1,2-Dichloroethene | 50 | 47.0 | 94 | 70-130 |
| 156-60-5 | trans-1,2-Dichloroethene | 50 | 46.4 | 93 | 70-130 |
| 78-87-5 | 1,2-Dichloropropane | 50 | 49.8 | 100 | 70-130 |
| 142-28-9 | 1,3-Dichloropropane | 50 | 49.0 | 98 | 70-130 |
| 594-20-7 | 2,2-Dichloropropane | 50 | 49.7 | 99 | 70-130 |
| 563-58-6 | 1,1-Dichloropropene | 50 | 51.8 | 104 | 70-130 |

* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1111-BS | V29671.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29574-1, MC29574-2, MC29574-3, MC29574-4, MC29574-5, MC29574-6

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | 50 | 45.1 | 90 | 70-130 |
| 10061-02-6 | trans-1,3-Dichloropropene | 50 | 57.3 | 115 | 70-130 |
| 123-91-1 | 1,4-Dioxane | 250 | 177 | 71 | 70-130 |
| 97-63-2 | Ethyl methacrylate | 50 | 44.0 | 88 | 77-137 |
| 100-41-4 | Ethylbenzene | 50 | 55.0 | 110 | 70-130 |
| 87-68-3 | Hexachlorobutadiene | 50 | 50.2 | 100 | 70-130 |
| 591-78-6 | 2-Hexanone | 50 | 43.8 | 88 | 70-130 |
| 98-82-8 | Isopropylbenzene | 50 | 55.0 | 110 | 70-130 |
| 99-87-6 | p-Isopropyltoluene | 50 | 56.2 | 112 | 70-130 |
| 1634-04-4 | Methyl Tert Butyl Ether | 50 | 44.5 | 89 | 70-130 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 50 | 44.3 | 89 | 70-130 |
| 74-95-3 | Methylene bromide | 50 | 48.9 | 98 | 70-130 |
| 75-09-2 | Methylene chloride | 50 | 45.0 | 90 | 70-130 |
| 91-20-3 | Naphthalene | 50 | 51.9 | 104 | 70-130 |
| 103-65-1 | n-Propylbenzene | 50 | 53.1 | 106 | 70-130 |
| 100-42-5 | Styrene | 50 | 55.3 | 111 | 70-130 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 50 | 57.5 | 115 | 70-130 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 50 | 50.9 | 102 | 70-130 |
| 127-18-4 | Tetrachloroethene | 50 | 54.4 | 109 | 70-130 |
| 108-88-3 | Toluene | 50 | 52.5 | 105 | 70-130 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 50 | 55.6 | 111 | 70-130 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 50 | 47.8 | 96 | 70-130 |
| 71-55-6 | 1,1,1-Trichloroethane | 50 | 51.9 | 104 | 70-130 |
| 79-00-5 | 1,1,2-Trichloroethane | 50 | 49.3 | 99 | 70-130 |
| 79-01-6 | Trichloroethene | 50 | 50.4 | 101 | 70-130 |
| 75-69-4 | Trichlorofluoromethane | 50 | 53.3 | 107 | 70-130 |
| 96-18-4 | 1,2,3-Trichloropropane | 50 | 50.3 | 101 | 70-130 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 50 | 54.6 | 109 | 70-130 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 50 | 55.7 | 111 | 70-130 |
| 108-05-4 | Vinyl Acetate | 50 | 42.8 | 86 | 70-130 |
| 75-01-4 | Vinyl chloride | 50 | 45.9 | 92 | 70-130 |
| | m,p-Xylene | 100 | 108 | 108 | 70-130 |
| 95-47-6 | o-Xylene | 50 | 53.4 | 107 | 70-130 |
| 1330-20-7 | Xylene (total) | 150 | 161 | 107 | 70-130 |

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1111-BS | V29671.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29574-1, MC29574-2, MC29574-3, MC29574-4, MC29574-5, MC29574-6

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 79% | 70-130% |
| 2037-26-5 | Toluene-D8 | 88% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 90% | 70-130% |

(a) Outside control limits. Associated samples are non-detect for this compound.

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29574-1MS | V29694.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |
| MC29574-1MSD | V29695.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |
| MC29574-1 | V29680.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29574-1, MC29574-2, MC29574-3, MC29574-4, MC29574-5, MC29574-6

| CAS No. | Compound | MC29574-1 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 | 36.6 | 73 | 50 | 28.3 | 57* a | 26 | 70-130/30 |
| 107-02-8 | Acrolein | ND | | 250 | 342 | 137* b | 250 | 338 | 135* b | 1 | 70-130/30 |
| 107-13-1 | Acrylonitrile | ND | | 50 | 40.4 | 81 | 50 | 41.8 | 84 | 3 | 70-130/30 |
| 71-43-2 | Benzene | 0.66 | | 50 | 48.6 | 96 | 50 | 47.1 | 93 | 3 | 70-130/30 |
| 108-86-1 | Bromobenzene | ND | | 50 | 53.4 | 107 | 50 | 53.3 | 107 | 0 | 70-130/30 |
| 74-97-5 | Bromochloromethane | ND | | 50 | 43.9 | 88 | 50 | 44.1 | 88 | 0 | 70-130/30 |
| 75-27-4 | Bromodichloromethane | ND | | 50 | 52.0 | 104 | 50 | 50.6 | 101 | 3 | 70-130/30 |
| 75-25-2 | Bromoform | ND | | 50 | 45.7 | 91 | 50 | 44.8 | 90 | 2 | 70-130/30 |
| 74-83-9 | Bromomethane | ND | | 50 | 50.4 | 101 | 50 | 46.4 | 93 | 8 | 70-130/30 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 50 | 36.5 | 73 | 50 | 36.1 | 72 | 1 | 70-130/30 |
| 104-51-8 | n-Butylbenzene | ND | | 50 | 54.3 | 109 | 50 | 51.9 | 104 | 5 | 70-130/30 |
| 135-98-8 | sec-Butylbenzene | ND | | 50 | 54.2 | 108 | 50 | 51.9 | 104 | 4 | 70-130/30 |
| 98-06-6 | tert-Butylbenzene | ND | | 50 | 55.5 | 111 | 50 | 52.2 | 104 | 6 | 70-130/30 |
| 75-15-0 | Carbon disulfide | ND | | 50 | 43.8 | 88 | 50 | 41.7 | 83 | 5 | 70-130/30 |
| 56-23-5 | Carbon tetrachloride | ND | | 50 | 63.1 | 126 | 50 | 59.3 | 119 | 6 | 70-130/30 |
| 108-90-7 | Chlorobenzene | ND | | 50 | 50.3 | 101 | 50 | 49.7 | 99 | 1 | 70-130/30 |
| 75-00-3 | Chloroethane | ND | | 50 | 51.4 | 103 | 50 | 49.8 | 100 | 3 | 70-130/30 |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | | 50 | ND | 0* a | 50 | ND | 0* a | nc | 70-130/30 |
| 67-66-3 | Chloroform | ND | | 50 | 47.3 | 95 | 50 | 45.9 | 92 | 3 | 70-130/30 |
| 74-87-3 | Chloromethane | ND | | 50 | 49.3 | 99 | 50 | 47.3 | 95 | 4 | 70-130/30 |
| 95-49-8 | o-Chlorotoluene | ND | | 50 | 52.1 | 104 | 50 | 50.4 | 101 | 3 | 70-130/30 |
| 106-43-4 | p-Chlorotoluene | ND | | 50 | 54.1 | 108 | 50 | 53.1 | 106 | 2 | 70-130/30 |
| 124-48-1 | Dibromochloromethane | ND | | 50 | 49.9 | 100 | 50 | 47.9 | 96 | 4 | 70-130/30 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 50 | 48.1 | 96 | 50 | 48.4 | 97 | 1 | 70-130/30 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 50 | 51.1 | 102 | 50 | 50.1 | 100 | 2 | 70-130/30 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 50 | 51.1 | 102 | 50 | 50.6 | 101 | 1 | 70-130/30 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 50 | 44.4 | 89 | 50 | 41.7 | 83 | 6 | 70-130/30 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 50 | 47.0 | 94 | 50 | 45.5 | 91 | 3 | 70-130/30 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 50 | 52.5 | 105 | 50 | 49.9 | 100 | 5 | 70-130/30 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 50 | 49.6 | 99 | 50 | 49.1 | 98 | 1 | 70-130/30 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 50 | 45.3 | 91 | 50 | 45.3 | 91 | 0 | 70-130/30 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 50 | 46.2 | 92 | 50 | 45.2 | 90 | 2 | 70-130/30 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 50 | 50.7 | 101 | 50 | 48.8 | 98 | 4 | 70-130/30 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 50 | 49.6 | 99 | 50 | 48.4 | 97 | 2 | 70-130/30 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 50 | 47.1 | 94 | 50 | 44.7 | 89 | 5 | 70-130/30 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 50 | 53.3 | 107 | 50 | 51.3 | 103 | 4 | 70-130/30 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29574-1MS | V29694.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |
| MC29574-1MSD | V29695.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |
| MC29574-1 | V29680.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29574-1, MC29574-2, MC29574-3, MC29574-4, MC29574-5, MC29574-6

| CAS No. | Compound | MC29574-1 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 | 43.0 | 86 | 50 | 42.5 | 85 | 1 | 70-130/30 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 50 | 57.9 | 116 | 50 | 58.0 | 116 | 0 | 70-130/30 |
| 123-91-1 | 1,4-Dioxane | ND | | 250 | 196 | 78 | 250 | 156 | 62* a | 23 | 70-130/30 |
| 97-63-2 | Ethyl methacrylate | ND | | 50 | 44.9 | 90 | 50 | 46.1 | 92 | 3 | 72-139/30 |
| 100-41-4 | Ethylbenzene | ND | | 50 | 55.6 | 111 | 50 | 53.6 | 107 | 4 | 70-130/30 |
| 87-68-3 | Hexachlorobutadiene | ND | | 50 | 45.6 | 91 | 50 | 47.9 | 96 | 5 | 70-130/30 |
| 591-78-6 | 2-Hexanone | ND | | 50 | 38.2 | 76 | 50 | 38.9 | 78 | 2 | 70-130/30 |
| 98-82-8 | Isopropylbenzene | ND | | 50 | 54.3 | 109 | 50 | 51.9 | 104 | 5 | 70-130/30 |
| 99-87-6 | p-Isopropyltoluene | ND | | 50 | 55.4 | 111 | 50 | 53.4 | 107 | 4 | 70-130/30 |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | | 50 | 46.1 | 92 | 50 | 45.7 | 91 | 1 | 70-130/30 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 50 | 44.5 | 89 | 50 | 43.2 | 86 | 3 | 70-130/30 |
| 74-95-3 | Methylene bromide | ND | | 50 | 51.4 | 103 | 50 | 48.4 | 97 | 6 | 70-130/30 |
| 75-09-2 | Methylene chloride | ND | | 50 | 43.6 | 87 | 50 | 43.1 | 86 | 1 | 70-130/30 |
| 91-20-3 | Naphthalene | ND | | 50 | 31.6 | 63* a | 50 | 47.3 | 95 | 40* c | 70-130/30 |
| 103-65-1 | n-Propylbenzene | ND | | 50 | 52.7 | 105 | 50 | 50.6 | 101 | 4 | 70-130/30 |
| 100-42-5 | Styrene | ND | | 50 | 54.4 | 109 | 50 | 53.2 | 106 | 2 | 70-130/30 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 50 | 58.1 | 116 | 50 | 54.6 | 109 | 6 | 70-130/30 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 50 | 50.7 | 101 | 50 | 50.0 | 100 | 1 | 70-130/30 |
| 127-18-4 | Tetrachloroethene | ND | | 50 | 55.5 | 111 | 50 | 52.6 | 105 | 5 | 70-130/30 |
| 108-88-3 | Toluene | ND | | 50 | 53.0 | 106 | 50 | 51.4 | 103 | 3 | 70-130/30 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 50 | 34.6 | 69* a | 50 | 48.3 | 97 | 33* c | 70-130/30 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 50 | 38.9 | 78 | 50 | 44.8 | 90 | 14 | 70-130/30 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 50 | 54.7 | 109 | 50 | 51.7 | 103 | 6 | 70-130/30 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 50 | 50.8 | 102 | 50 | 49.6 | 99 | 2 | 70-130/30 |
| 79-01-6 | Trichloroethene | ND | | 50 | 50.9 | 102 | 50 | 48.2 | 96 | 5 | 70-130/30 |
| 75-69-4 | Trichlorofluoromethane | ND | | 50 | 57.7 | 115 | 50 | 53.0 | 106 | 8 | 70-130/30 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 50 | 48.4 | 97 | 50 | 48.9 | 98 | 1 | 70-130/30 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 50 | 54.1 | 108 | 50 | 52.0 | 104 | 4 | 70-130/30 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 50 | 54.8 | 110 | 50 | 52.3 | 105 | 5 | 70-130/30 |
| 108-05-4 | Vinyl Acetate | ND | | 50 | 42.6 | 85 | 50 | 41.5 | 83 | 3 | 70-130/30 |
| 75-01-4 | Vinyl chloride | ND | | 50 | 48.1 | 96 | 50 | 45.4 | 91 | 6 | 70-130/30 |
| | m,p-Xylene | ND | | 100 | 108 | 108 | 100 | 105 | 105 | 3 | 70-130/30 |
| 95-47-6 | o-Xylene | ND | | 50 | 53.4 | 107 | 50 | 51.1 | 102 | 4 | 70-130/30 |
| 1330-20-7 | Xylene (total) | ND | | 150 | 161 | 107 | 150 | 156 | 104 | 3 | 70-130/30 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29574-1MS | V29694.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |
| MC29574-1MSD | V29695.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |
| MC29574-1 | V29680.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29574-1, MC29574-2, MC29574-3, MC29574-4, MC29574-5, MC29574-6

| CAS No. | Surrogate Recoveries | MS | MSD | MC29574-1 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 80% | 80% | 92% | 70-130% |
| 2037-26-5 | Toluene-D8 | 88% | 89% | 86% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 89% | 91% | 92% | 70-130% |

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(b) Outside control limits. Associated samples are non-detect for this compound.
(c) High RPD due to possible matrix interference and/or sample non-homogeneity.

* = Outside of Control Limits.

# Volatile Internal Standard Area Summary



**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSV1111-CC1058 | **Injection Date:** | 04/11/14 |
| **Lab File ID:** | V29670.D | **Injection Time:** | 09:56 |
| **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 | 300021 | 6.55 | 399854 | 7.73 | 184124 | 11.08 | 197689 | 13.29 | 34571 | 3.49 |
| Upper Limit [a] | 600042 | 7.05 | 799708 | 8.23 | 368248 | 11.58 | 395378 | 13.79 | 69142 | 3.99 |
| Lower Limit [b] | 150011 | 6.05 | 199927 | 7.23 | 92062 | 10.58 | 98845 | 12.79 | 17286 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| MSV1111-BS | 309777 | 6.55 | 409864 | 7.74 | 193009 | 11.08 | 202898 | 13.29 | 36807 | 3.50 |
| MSV1111-MB | 259007 | 6.56 | 356819 | 7.74 | 175741 | 11.08 | 167631 | 13.29 | 34778 | 3.50 |
| MC29574-6 | 228816 | 6.55 | 320141 | 7.73 | 155764 | 11.08 | 152425 | 13.29 | 33547 | 3.49 |
| ZZZZZZ | 246623 | 6.56 | 347160 | 7.74 | 171040 | 11.08 | 167501 | 13.29 | 36615 | 3.50 |
| ZZZZZZ | 235965 | 6.56 | 330943 | 7.74 | 165725 | 11.08 | 162150 | 13.29 | 36719 | 3.50 |
| MC29574-4 | 232479 | 6.56 | 325158 | 7.74 | 153201 | 11.08 | 150067 | 13.29 | 44615 | 3.50 |
| ZZZZZZ | 237139 | 6.56 | 329327 | 7.74 | 159884 | 11.08 | 151797 | 13.29 | 46031 | 3.50 |
| MC29574-1 | 222377 | 6.56 | 312757 | 7.74 | 159127 | 11.08 | 151929 | 13.29 | 32999 | 3.50 |
| MC29574-2 | 225237 | 6.56 | 320484 | 7.74 | 160677 | 11.08 | 152348 | 13.29 | 29840 | 3.50 |
| MC29574-3 | 250889 | 6.56 | 317151 | 7.74 | 162987 | 11.08 | 153418 | 13.29 | 36723 | 3.50 |
| MC29574-5 | 220319 | 6.56 | 307295 | 7.74 | 155805 | 11.08 | 147405 | 13.29 | 34711 | 3.50 |
| ZZZZZZ | 205928 | 6.55 | 297866 | 7.74 | 152523 | 11.08 | 146963 | 13.29 | 33219 | 3.50 |
| ZZZZZZ | 207218 | 6.56 | 296503 | 7.74 | 153363 | 11.08 | 145784 | 13.29 | 31341 | 3.51 |
| ZZZZZZ | 189423 | 6.55 | 268435 | 7.74 | 136770 | 11.08 | 132176 | 13.29 | 29099 | 3.49 |
| ZZZZZZ | 213474 | 6.56 | 297714 | 7.74 | 154139 | 11.08 | 151347 | 13.29 | 33355 | 3.50 |
| ZZZZZZ | 202228 | 6.55 | 282495 | 7.74 | 144311 | 11.08 | 141198 | 13.29 | 32268 | 3.50 |
| ZZZZZZ | 196787 | 6.55 | 274854 | 7.74 | 142355 | 11.08 | 137215 | 13.29 | 28195 | 3.50 |
| ZZZZZZ | 234576 | 6.56 | 311674 | 7.74 | 158511 | 11.08 | 171009 | 13.29 | 37483 | 3.50 |
| ZZZZZZ | 248527 | 6.55 | 321977 | 7.73 | 169842 | 11.08 | 175444 | 13.29 | 38866 | 3.50 |
| MC29574-1MS | 266742 | 6.55 | 347382 | 7.73 | 166716 | 11.08 | 179177 | 13.29 | 36221 | 3.49 |
| MC29574-1MSD | 303138 | 6.55 | 396937 | 7.74 | 192339 | 11.08 | 205672 | 13.29 | 38387 | 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.

# Volatile Surrogate Recovery Summary



**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 |
|---|---|---|---|---|
| MC29574-1 | V29680.D | 92 | 86 | 92 |
| MC29574-2 | V29681.D | 93 | 88 | 93 |
| MC29574-3 | V29682.D | 80 | 90 | 94 |
| MC29574-4 | V29678.D | 91 | 84 | 92 |
| MC29574-5 | V29683.D | 91 | 90 | 93 |
| MC29574-6 | V29675.D | 88 | 86 | 91 |
| MC29574-1MS | V29694.D | 80 | 88 | 89 |
| MC29574-1MSD | V29695.D | 80 | 89 | 91 |
| MSV1111-BS | V29671.D | 79 | 88 | 90 |
| MSV1111-MB | V29674.D | 86 | 87 | 91 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = Dibromofluoromethane | 70-130% |
| S2 = Toluene-D8 | 70-130% |
| S3 = 4-Bromofluorobenzene | 70-130% |

## GC/MS Semi-volatiles

7

# 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:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37522-MB | R38038.D | 1 | 04/10/14 | KR | 04/09/14 | OP37522 | MSR1403 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29574-1, MC29574-4

| 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 | 0.31 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 10 | 0.83 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 10 | 0.40 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 10 | 0.56 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 20 | 2.5 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 10 | 0.23 | ug/l | |
| | 3&4-Methylphenol | ND | 10 | 0.47 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 10 | 2.9 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 20 | 0.53 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 10 | 1.1 | ug/l | |
| 108-95-2 | Phenol | ND | 5.0 | 0.30 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 10 | 0.37 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 10 | 0.18 | ug/l | |
| 62-53-3 | Aniline | ND | 10 | 0.64 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.0 | 0.47 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.0 | 0.53 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 10 | 2.3 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.0 | 0.31 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 10 | 0.56 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.0 | 0.29 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.0 | 0.35 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.0 | 0.33 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.0 | 0.25 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.0 | 0.24 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 10 | 0.46 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 10 | 0.30 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.0 | 0.27 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.0 | 0.26 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.35 | 5.0 | 0.17 | ug/l | J |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.0 | 0.28 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.0 | 0.20 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.0 | 0.34 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.0 | 0.33 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.0 | 0.29 | ug/l | |

# Method Blank Summary

**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37522-MB | R38038.D | 1 | 04/10/14 | KR | 04/09/14 | OP37522 | MSR1403 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29574-1, MC29574-4

| 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 | 0.30 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.0 | 0.45 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 0.40 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 1.4 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 2.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.0 | 0.39 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.0 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.0 | 0.40 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.0 | 0.19 | ug/l | |
| 110-86-1 | Pyridine | ND | 10 | 0.52 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 51% | 15-110% |
| 4165-62-2 | Phenol-d5 | 34% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 75% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 83% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 76% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 93% | 30-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile | | 0 | ug/l | |

# Method Blank Summary



**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37571-MB | R38148.D | 1 | 04/14/14 | WK | 04/11/14 | OP37571 | MSR1407 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29574-2, MC29574-3, MC29574-5



| 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 | 0.31 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 10 | 0.83 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 10 | 0.40 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 10 | 0.56 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 20 | 2.5 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 10 | 0.23 | ug/l | |
| | 3&4-Methylphenol | ND | 10 | 0.47 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 10 | 2.9 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 20 | 0.53 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 10 | 1.1 | ug/l | |
| 108-95-2 | Phenol | ND | 5.0 | 0.30 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 10 | 0.37 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 10 | 0.18 | ug/l | |
| 62-53-3 | Aniline | ND | 10 | 0.64 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.0 | 0.47 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.0 | 0.53 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 10 | 2.3 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.0 | 0.31 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 10 | 0.56 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.0 | 0.29 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.0 | 0.35 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.0 | 0.33 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.0 | 0.25 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.0 | 0.24 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 10 | 0.46 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 10 | 0.30 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.0 | 0.27 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.0 | 0.26 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.67 | 5.0 | 0.17 | ug/l | J |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.0 | 0.28 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.0 | 0.20 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.0 | 0.34 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 6.2 | 2.0 | 0.33 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.0 | 0.29 | ug/l | |

# Method Blank Summary

**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37571-MB | R38148.D | 1 | 04/14/14 | WK | 04/11/14 | OP37571 | MSR1407 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29574-2, MC29574-3, MC29574-5

| 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 | 0.30 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.0 | 0.45 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 0.40 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 1.4 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 2.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.0 | 0.39 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.0 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.0 | 0.40 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.0 | 0.19 | ug/l | |
| 110-86-1 | Pyridine | ND | 10 | 0.52 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 42% | 15-110% |
| 4165-62-2 | Phenol-d5 | 27% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 67% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 69% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 67% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 96% | 30-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile | | 0 | ug/l | |

# Method Blank Summary



**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37657-MB | R38279.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29574-1

| 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 | 0.31 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 10 | 0.83 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 10 | 0.40 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 10 | 0.56 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 20 | 2.5 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 10 | 0.23 | ug/l | |
| | 3&4-Methylphenol | ND | 10 | 0.47 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 10 | 2.9 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 20 | 0.53 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 10 | 1.1 | ug/l | |
| 108-95-2 | Phenol | ND | 5.0 | 0.30 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 10 | 0.37 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 10 | 0.18 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 42% | 15-110% |
| 4165-62-2 | Phenol-d5 | 28% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 73% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 72% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 74% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 94% | 30-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile | | 0 | ug/l | |

# Method Blank Summary



**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37523-MB | R38019.D | 1 | 04/10/14 | KR | 04/09/14 | OP37523 | MSR1402 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D BY SIM

MC29574-1, MC29574-2, MC29574-3, MC29574-4, MC29574-5

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | ND | 0.10 | 0.069 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.10 | 0.050 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.10 | 0.092 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.050 | 0.020 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.10 | 0.029 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.050 | 0.032 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.10 | 0.027 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.10 | 0.039 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.10 | 0.024 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.10 | 0.032 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.10 | 0.041 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.10 | 0.099 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.10 | 0.031 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.20 | 0.050 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.20 | 0.074 | ug/l | |
| 85-01-8 | Phenanthrene | 0.021 | 0.050 | 0.013 | ug/l | J |
| 129-00-0 | Pyrene | ND | 0.10 | 0.038 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 85% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 77% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 94% | 30-130% |

# Blank Spike Summary



**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37522-BS | R38039.D | 1 | 04/10/14 | KR | 04/09/14 | OP37522 | MSR1403 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29574-1, MC29574-4

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | 50 | 22.4 | 45 | 30-130 |
| 95-57-8 | 2-Chlorophenol | 50 | 40.3 | 81 | 30-130 |
| 59-50-7 | 4-Chloro-3-methyl phenol | 50 | 41.0 | 82 | 30-130 |
| 120-83-2 | 2,4-Dichlorophenol | 50 | 42.4 | 85 | 30-130 |
| 105-67-9 | 2,4-Dimethylphenol | 50 | 32.0 | 64 | 30-130 |
| 51-28-5 | 2,4-Dinitrophenol | 50 | 40.3 | 81 | 30-130 |
| 534-52-1 | 4,6-Dinitro-o-cresol | 50 | 46.1 | 92 | 30-130 |
| 95-48-7 | 2-Methylphenol | 50 | 47.0 | 94 | 30-130 |
| | 3&4-Methylphenol | 100 | 89.0 | 89 | 30-130 |
| 88-75-5 | 2-Nitrophenol | 50 | 41.8 | 84 | 30-130 |
| 100-02-7 | 4-Nitrophenol | 50 | 18.9 | 38 | 30-130 |
| 87-86-5 | Pentachlorophenol | 50 | 39.2 | 78 | 30-130 |
| 108-95-2 | Phenol | 50 | 19.5 | 39 | 30-130 |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | 43.6 | 87 | 30-130 |
| 88-06-2 | 2,4,6-Trichlorophenol | 50 | 42.7 | 85 | 30-130 |
| 62-53-3 | Aniline | 50 | 30.1 | 60 | 40-140 |
| 101-55-3 | 4-Bromophenyl phenyl ether | 50 | 45.8 | 92 | 40-140 |
| 85-68-7 | Butyl benzyl phthalate | 50 | 51.3 | 103 | 40-140 |
| 100-51-6 | Benzyl Alcohol | 50 | 39.2 | 78 | 40-140 |
| 91-58-7 | 2-Chloronaphthalene | 50 | 48.4 | 97 | 40-140 |
| 106-47-8 | 4-Chloroaniline | 50 | 37.9 | 76 | 40-140 |
| 111-91-1 | bis(2-Chloroethoxy)methane | 50 | 44.4 | 89 | 40-140 |
| 111-44-4 | bis(2-Chloroethyl)ether | 50 | 45.1 | 90 | 40-140 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 50 | 72.4 | 145* [a] | 40-140 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 50 | 36.2 | 72 | 40-140 |
| 122-66-7 | 1,2-Diphenylhydrazine | 50 | 45.4 | 91 | 40-140 |
| 121-14-2 | 2,4-Dinitrotoluene | 50 | 39.5 | 79 | 40-140 |
| 606-20-2 | 2,6-Dinitrotoluene | 50 | 49.5 | 99 | 40-140 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 50 | 44.7 | 89 | 40-140 |
| 132-64-9 | Dibenzofuran | 50 | 34.2 | 68 | 40-140 |
| 84-74-2 | Di-n-butyl phthalate | 50 | 47.2 | 94 | 40-140 |
| 117-84-0 | Di-n-octyl phthalate | 50 | 72.4 | 145* [a] | 40-140 |
| 84-66-2 | Diethyl phthalate | 50 | 33.2 | 66 | 40-140 |
| 131-11-3 | Dimethyl phthalate | 50 | 28.7 | 57 | 40-140 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 50 | 52.6 | 105 | 40-140 |
| 118-74-1 | Hexachlorobenzene | 50 | 45.2 | 90 | 40-140 |

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37522-BS | R38039.D | 1 | 04/10/14 | KR | 04/09/14 | OP37522 | MSR1403 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29574-1, MC29574-4

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 77-47-4 | Hexachlorocyclopentadiene | 50 | 22.7 | 45 | 40-140 |
| 67-72-1 | Hexachloroethane | 50 | 32.8 | 66 | 40-140 |
| 78-59-1 | Isophorone | 50 | 42.9 | 86 | 40-140 |
| 88-74-4 | 2-Nitroaniline | 50 | 51.1 | 102 | 40-140 |
| 99-09-2 | 3-Nitroaniline | 50 | 43.2 | 86 | 40-140 |
| 100-01-6 | 4-Nitroaniline | 50 | 35.6 | 71 | 40-140 |
| 98-95-3 | Nitrobenzene | 50 | 52.7 | 105 | 40-140 |
| 62-75-9 | n-Nitrosodimethylamine | 50 | 36.0 | 72 | 40-140 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 50 | 60.9 | 122 | 40-140 |
| 86-30-6 | N-Nitrosodiphenylamine | 50 | 43.2 | 86 | 40-140 |
| 110-86-1 | Pyridine | 50 | 29.1 | 58 | 40-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 64% | 15-110% |
| 4165-62-2 | Phenol-d5 | 35% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 80% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 102% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 79% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 89% | 30-130% |

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37571-BS | R38149.D | 1 | 04/14/14 | WK | 04/11/14 | OP37571 | MSR1407 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29574-2, MC29574-3, MC29574-5

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | 50 | 14.9 | 30 | 30-130 |
| 95-57-8 | 2-Chlorophenol | 50 | 35.0 | 70 | 30-130 |
| 59-50-7 | 4-Chloro-3-methyl phenol | 50 | 36.2 | 72 | 30-130 |
| 120-83-2 | 2,4-Dichlorophenol | 50 | 38.4 | 77 | 30-130 |
| 105-67-9 | 2,4-Dimethylphenol | 50 | 30.8 | 62 | 30-130 |
| 51-28-5 | 2,4-Dinitrophenol | 50 | 33.8 | 68 | 30-130 |
| 534-52-1 | 4,6-Dinitro-o-cresol | 50 | 47.5 | 95 | 30-130 |
| 95-48-7 | 2-Methylphenol | 50 | 31.8 | 64 | 30-130 |
| | 3&4-Methylphenol | 100 | 57.8 | 58 | 30-130 |
| 88-75-5 | 2-Nitrophenol | 50 | 38.2 | 76 | 30-130 |
| 100-02-7 | 4-Nitrophenol | 50 | 7.0 | 14* [a] | 30-130 |
| 87-86-5 | Pentachlorophenol | 50 | 28.1 | 56 | 30-130 |
| 108-95-2 | Phenol | 50 | 17.3 | 35 | 30-130 |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | 40.3 | 81 | 30-130 |
| 88-06-2 | 2,4,6-Trichlorophenol | 50 | 34.7 | 69 | 30-130 |
| 62-53-3 | Aniline | 50 | 24.5 | 49 | 40-140 |
| 101-55-3 | 4-Bromophenyl phenyl ether | 50 | 45.6 | 91 | 40-140 |
| 85-68-7 | Butyl benzyl phthalate | 50 | 53.3 | 107 | 40-140 |
| 100-51-6 | Benzyl Alcohol | 50 | 15.4 | 31* [a] | 40-140 |
| 91-58-7 | 2-Chloronaphthalene | 50 | 41.8 | 84 | 40-140 |
| 106-47-8 | 4-Chloroaniline | 50 | 35.4 | 71 | 40-140 |
| 111-91-1 | bis(2-Chloroethoxy)methane | 50 | 38.6 | 77 | 40-140 |
| 111-44-4 | bis(2-Chloroethyl)ether | 50 | 38.9 | 78 | 40-140 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 50 | 46.7 | 93 | 40-140 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 50 | 44.3 | 89 | 40-140 |
| 122-66-7 | 1,2-Diphenylhydrazine | 50 | 44.6 | 89 | 40-140 |
| 121-14-2 | 2,4-Dinitrotoluene | 50 | 46.7 | 93 | 40-140 |
| 606-20-2 | 2,6-Dinitrotoluene | 50 | 45.6 | 91 | 40-140 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 50 | 41.7 | 83 | 40-140 |
| 132-64-9 | Dibenzofuran | 50 | 41.8 | 84 | 40-140 |
| 84-74-2 | Di-n-butyl phthalate | 50 | 47.3 | 95 | 40-140 |
| 117-84-0 | Di-n-octyl phthalate | 50 | 55.7 | 111 | 40-140 |
| 84-66-2 | Diethyl phthalate | 50 | 48.8 | 98 | 40-140 |
| 131-11-3 | Dimethyl phthalate | 50 | 46.8 | 94 | 40-140 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 50 | 53.7 | 107 | 40-140 |
| 118-74-1 | Hexachlorobenzene | 50 | 45.0 | 90 | 40-140 |

* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37571-BS | R38149.D | 1 | 04/14/14 | WK | 04/11/14 | OP37571 | MSR1407 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29574-2, MC29574-3, MC29574-5

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 77-47-4 | Hexachlorocyclopentadiene | 50 | 21.8 | 44 | 40-140 |
| 67-72-1 | Hexachloroethane | 50 | 23.0 | 46 | 40-140 |
| 78-59-1 | Isophorone | 50 | 38.1 | 76 | 40-140 |
| 88-74-4 | 2-Nitroaniline | 50 | 43.6 | 87 | 40-140 |
| 99-09-2 | 3-Nitroaniline | 50 | 41.7 | 83 | 40-140 |
| 100-01-6 | 4-Nitroaniline | 50 | 41.8 | 84 | 40-140 |
| 98-95-3 | Nitrobenzene | 50 | 36.5 | 73 | 40-140 |
| 62-75-9 | n-Nitrosodimethylamine | 50 | 23.1 | 46 | 40-140 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 50 | 40.8 | 82 | 40-140 |
| 86-30-6 | N-Nitrosodiphenylamine | 50 | 43.0 | 86 | 40-140 |
| 110-86-1 | Pyridine | 50 | 18.2 | 36* [a] | 40-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 40% | 15-110% |
| 4165-62-2 | Phenol-d5 | 28% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 67% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 70% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 65% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 94% | 30-130% |

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37657-BS | R38280.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29574-1

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | 50 | 10.9 | 22* [a] | 30-130 |
| 95-57-8 | 2-Chlorophenol | 50 | 38.9 | 78 | 30-130 |
| 59-50-7 | 4-Chloro-3-methyl phenol | 50 | 37.0 | 74 | 30-130 |
| 120-83-2 | 2,4-Dichlorophenol | 50 | 40.1 | 80 | 30-130 |
| 105-67-9 | 2,4-Dimethylphenol | 50 | 32.5 | 65 | 30-130 |
| 51-28-5 | 2,4-Dinitrophenol | 50 | 27.8 | 56 | 30-130 |
| 534-52-1 | 4,6-Dinitro-o-cresol | 50 | 38.5 | 77 | 30-130 |
| 95-48-7 | 2-Methylphenol | 50 | 27.6 | 55 | 30-130 |
| | 3&4-Methylphenol | 100 | 53.3 | 53 | 30-130 |
| 88-75-5 | 2-Nitrophenol | 50 | 40.6 | 81 | 30-130 |
| 100-02-7 | 4-Nitrophenol | 50 | 15.8 | 32 | 30-130 |
| 87-86-5 | Pentachlorophenol | 50 | 40.6 | 81 | 30-130 |
| 108-95-2 | Phenol | 50 | 17.6 | 35 | 30-130 |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | 43.4 | 87 | 30-130 |
| 88-06-2 | 2,4,6-Trichlorophenol | 50 | 44.1 | 88 | 30-130 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 55% | 15-110% |
| 4165-62-2 | Phenol-d5 | 33% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 91% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 79% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 83% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 96% | 30-130% |

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37523-BS | R38020.D | 1 | 04/10/14 | KR | 04/09/14 | OP37523 | MSR1402 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D BY SIM

MC29574-1, MC29574-2, MC29574-3, MC29574-4, MC29574-5

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 50 | 44.2 | 88 | 40-140 |
| 208-96-8 | Acenaphthylene | 50 | 43.2 | 86 | 40-140 |
| 120-12-7 | Anthracene | 50 | 45.1 | 90 | 40-140 |
| 56-55-3 | Benzo(a)anthracene | 50 | 49.0 | 98 | 40-140 |
| 50-32-8 | Benzo(a)pyrene | 50 | 46.7 | 93 | 40-140 |
| 205-99-2 | Benzo(b)fluoranthene | 50 | 52.5 | 105 | 40-140 |
| 191-24-2 | Benzo(g,h,i)perylene | 50 | 51.4 | 103 | 40-140 |
| 207-08-9 | Benzo(k)fluoranthene | 50 | 50.2 | 100 | 40-140 |
| 218-01-9 | Chrysene | 50 | 44.2 | 88 | 40-140 |
| 53-70-3 | Dibenzo(a,h)anthracene | 50 | 52.9 | 106 | 40-140 |
| 206-44-0 | Fluoranthene | 50 | 47.6 | 95 | 40-140 |
| 86-73-7 | Fluorene | 50 | 47.1 | 94 | 40-140 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 50 | 42.9 | 86 | 40-140 |
| 90-12-0 | 1-Methylnaphthalene | 50 | 39.4 | 79 | 40-140 |
| 91-57-6 | 2-Methylnaphthalene | 50 | 38.3 | 77 | 40-140 |
| 85-01-8 | Phenanthrene | 50 | 45.4 | 91 | 40-140 |
| 129-00-0 | Pyrene | 50 | 46.3 | 93 | 40-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 85% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 80% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 89% | 30-130% |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: MC29574
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37522-MS | R38053.D | 1 | 04/11/14 | KR | 04/09/14 | OP37522 | MSR1403 |
| OP37522-MSD | R38054.D | 1 | 04/11/14 | KR | 04/09/14 | OP37522 | MSR1403 |
| MC29574-1 | R38055.D | 1 | 04/11/14 | KR | 04/09/14 | OP37522 | MSR1403 |

The QC reported here applies to the following samples: Method: SW846 8270D

MC29574-1, MC29574-4

| CAS No. | Compound | MC29574-1 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 | | 54.3 | 26.3 | 48 | 52.6 | 25.9 | 49 | 2 | 30-130/20 |
| 95-57-8 | 2-Chlorophenol | ND | | 54.3 | 0.60 | 1* a | 52.6 | 0.73 | 1* a | 20 | 30-130/20 |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | | 54.3 | 2.2 | 4* a | 52.6 | 2.0 | 4* a | 10 | 30-130/20 |
| 120-83-2 | 2,4-Dichlorophenol | ND | | 54.3 | 1.4 | 3* a | 52.6 | 1.7 | 3* a | 19 | 30-130/20 |
| 105-67-9 | 2,4-Dimethylphenol | ND | | 54.3 | 12.1 | 22* a | 52.6 | 12.3 | 23* a | 2 | 30-130/20 |
| 51-28-5 | 2,4-Dinitrophenol | ND | | 54.3 | 42.5 | 78 | 52.6 | 41.1 | 78 | 3 | 30-130/20 |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | | 54.3 | 49.5 | 91 | 52.6 | 57.2 | 109 | 14 | 30-130/20 |
| 95-48-7 | 2-Methylphenol | ND | | 54.3 | 3.2 | 6* a | 52.6 | 3.2 | 6* a | 0 | 30-130/20 |
| | 3&4-Methylphenol | ND | | 109 | 3.6 | 3* a | 105 | 3.7 | 4* a | 3 | 30-130/20 |
| 88-75-5 | 2-Nitrophenol | ND | | 54.3 | 30.1 | 55 | 52.6 | 31.5 | 60 | 5 | 30-130/20 |
| 100-02-7 | 4-Nitrophenol | ND | | 54.3 | 19.5 | 36 | 52.6 | 19.5 | 37 | 0 | 30-130/20 |
| 87-86-5 | Pentachlorophenol | ND | | 54.3 | 9.1 | 17* a | 52.6 | 10.5 | 20* a | 14 | 30-130/20 |
| 108-95-2 | Phenol | ND | | 54.3 | 0.69 | 1* a | 52.6 | 0.65 | 1* a | 6 | 30-130/20 |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | | 54.3 | 3.9 | 7* a | 52.6 | 5.1 | 10* a | 27* b | 30-130/20 |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | | 54.3 | 3.3 | 6* a | 52.6 | 3.6 | 7* a | 9 | 30-130/20 |
| 62-53-3 | Aniline | ND | | 54.3 | 15.6 | 29* a | 52.6 | 15.4 | 29* a | 1 | 40-140/20 |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | | 54.3 | 48.1 | 89 | 52.6 | 43.2 | 82 | 11 | 40-140/20 |
| 85-68-7 | Butyl benzyl phthalate | ND | | 54.3 | 58.5 | 108 | 52.6 | 51.7 | 98 | 12 | 40-140/20 |
| 100-51-6 | Benzyl Alcohol | ND | | 54.3 | 37.4 | 69 | 52.6 | 35.2 | 67 | 6 | 40-140/20 |
| 91-58-7 | 2-Chloronaphthalene | ND | | 54.3 | 46.2 | 85 | 52.6 | 44.9 | 85 | 3 | 40-140/20 |
| 106-47-8 | 4-Chloroaniline | ND | | 54.3 | 26.9 | 49 | 52.6 | 26.6 | 51 | 1 | 40-140/20 |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | | 54.3 | 44.8 | 82 | 52.6 | 41.9 | 80 | 7 | 40-140/20 |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | | 54.3 | 46.6 | 86 | 52.6 | 44.1 | 84 | 6 | 40-140/20 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | | 54.3 | 55.8 | 103 | 52.6 | 51.8 | 98 | 7 | 40-140/20 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | | 54.3 | 48.0 | 88 | 52.6 | 45.1 | 86 | 6 | 40-140/20 |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | | 54.3 | 46.2 | 85 | 52.6 | 45.3 | 86 | 2 | 40-140/20 |
| 121-14-2 | 2,4-Dinitrotoluene | ND | | 54.3 | 51.9 | 95 | 52.6 | 47.8 | 91 | 8 | 40-140/20 |
| 606-20-2 | 2,6-Dinitrotoluene | ND | | 54.3 | 49.2 | 91 | 52.6 | 36.3 | 69 | 30* b | 40-140/20 |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | | 54.3 | 19.2 | 35* a | 52.6 | 17.3 | 33* a | 10 | 40-140/20 |
| 132-64-9 | Dibenzofuran | ND | | 54.3 | 45.2 | 83 | 52.6 | 40.5 | 77 | 11 | 40-140/20 |
| 84-74-2 | Di-n-butyl phthalate | 0.29 | JB | 54.3 | 50.4 | 92 | 52.6 | 56.6 | 107 | 12 | 40-140/20 |
| 117-84-0 | Di-n-octyl phthalate | ND | | 54.3 | 69.6 | 128 | 52.6 | 42.3 | 80 | 49* c | 40-140/20 |
| 84-66-2 | Diethyl phthalate | ND | | 54.3 | 50.4 | 93 | 52.6 | 49.4 | 94 | 2 | 40-140/20 |
| 131-11-3 | Dimethyl phthalate | ND | | 54.3 | 42.1 | 77 | 52.6 | 31.1 | 59 | 30* b | 40-140/20 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | | 54.3 | 57.2 | 105 | 52.6 | 51.3 | 97 | 11 | 40-140/20 |
| 118-74-1 | Hexachlorobenzene | ND | | 54.3 | 46.9 | 86 | 52.6 | 42.2 | 80 | 11 | 40-140/20 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC29574
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37522-MS | R38053.D | 1 | 04/11/14 | KR | 04/09/14 | OP37522 | MSR1403 |
| OP37522-MSD | R38054.D | 1 | 04/11/14 | KR | 04/09/14 | OP37522 | MSR1403 |
| MC29574-1 | R38055.D | 1 | 04/11/14 | KR | 04/09/14 | OP37522 | MSR1403 |

The QC reported here applies to the following samples: Method: SW846 8270D

MC29574-1, MC29574-4

| CAS No. | Compound | MC29574-1 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 | | 54.3 | 25.3 | 47 | 52.6 | 24.3 | 46 | 4 | 40-140/20 |
| 67-72-1 | Hexachloroethane | ND | | 54.3 | 31.4 | 58 | 52.6 | 30.9 | 59 | 2 | 40-140/20 |
| 78-59-1 | Isophorone | ND | | 54.3 | 43.3 | 80 | 52.6 | 42.1 | 80 | 3 | 40-140/20 |
| 88-74-4 | 2-Nitroaniline | ND | | 54.3 | 48.8 | 90 | 52.6 | 39.0 | 74 | 22* [b] | 40-140/20 |
| 99-09-2 | 3-Nitroaniline | ND | | 54.3 | 41.5 | 76 | 52.6 | 31.4 | 60 | 28* [b] | 40-140/20 |
| 100-01-6 | 4-Nitroaniline | ND | | 54.3 | 45.4 | 84 | 52.6 | 42.4 | 81 | 7 | 40-140/20 |
| 98-95-3 | Nitrobenzene | ND | | 54.3 | 43.8 | 81 | 52.6 | 43.0 | 82 | 2 | 40-140/20 |
| 62-75-9 | n-Nitrosodimethylamine | ND | | 54.3 | 28.8 | 53 | 52.6 | 30.2 | 57 | 5 | 40-140/20 |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | | 54.3 | 46.5 | 86 | 52.6 | 42.7 | 81 | 9 | 40-140/20 |
| 86-30-6 | N-Nitrosodiphenylamine | ND | | 54.3 | 44.9 | 83 | 52.6 | 43.1 | 82 | 4 | 40-140/20 |
| 110-86-1 | Pyridine | ND | | 54.3 | 16.9 | 31* [a] | 52.6 | 18.2 | 35* [a] | 7 | 40-140/20 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29574-1 | Limits |
|---|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 2%* [e] | 2%* [e] | 1%* [d] | 15-110% |
| 4165-62-2 | Phenol-d5 | 1%* [e] | 1%* [e] | 1%* [d] | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 7%* [e] | 8%* [e] | 3%* [d] | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 78% | 78% | 71% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 73% | 69% | 68% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 92% | 82% | 87% | 30-130% |

(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.
(c) Outside control limits. Blank Spike meets program technical requirements.
(d) Outside control limits. Sample re-extracted/reanalyzed.
(e) Outside control limits due to possible matrix interference.

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: MC29574
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37571-MS | R38150.D | 1 | 04/14/14 | WK | 04/11/14 | OP37571 | MSR1407 |
| OP37571-MSD | R38151.D | 1 | 04/14/14 | WK | 04/11/14 | OP37571 | MSR1407 |
| MC29300-23 | R38152.D | 1 | 04/14/14 | WK | 04/11/14 | OP37571 | MSR1407 |

The QC reported here applies to the following samples: Method: SW846 8270D

MC29574-2, MC29574-3, MC29574-5



| CAS No. | Compound | MC29300-23 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 | | 50.5 | 15.5 | 31 | 50.5 | 15.9 | 31 | 3 | 30-130/20 |
| 95-57-8 | 2-Chlorophenol | ND | | 50.5 | 33.3 | 66 | 50.5 | 33.1 | 66 | 1 | 30-130/20 |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | | 50.5 | 36.2 | 72 | 50.5 | 35.9 | 71 | 1 | 30-130/20 |
| 120-83-2 | 2,4-Dichlorophenol | ND | | 50.5 | 37.0 | 73 | 50.5 | 35.9 | 71 | 3 | 30-130/20 |
| 105-67-9 | 2,4-Dimethylphenol | ND | | 50.5 | 29.0 | 57 | 50.5 | 33.1 | 66 | 13 | 30-130/20 |
| 51-28-5 | 2,4-Dinitrophenol | ND | | 50.5 | 38.4 | 76 | 50.5 | 35.4 | 70 | 8 | 30-130/20 |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | | 50.5 | 48.6 | 96 | 50.5 | 45.7 | 90 | 6 | 30-130/20 |
| 95-48-7 | 2-Methylphenol | ND | | 50.5 | 29.6 | 59 | 50.5 | 30.0 | 59 | 1 | 30-130/20 |
| | 3&4-Methylphenol | ND | | 101 | 53.0 | 52 | 101 | 52.7 | 52 | 1 | 30-130/20 |
| 88-75-5 | 2-Nitrophenol | ND | | 50.5 | 36.4 | 72 | 50.5 | 35.7 | 71 | 2 | 30-130/20 |
| 100-02-7 | 4-Nitrophenol | ND | | 50.5 | 7.0 | 14* [a] | 50.5 | 7.9 | 16* [a] | 12 | 30-130/20 |
| 87-86-5 | Pentachlorophenol | ND | | 50.5 | 35.9 | 71 | 50.5 | 30.4 | 60 | 17 | 30-130/20 |
| 108-95-2 | Phenol | ND | | 50.5 | 11.6 | 23* [b] | 50.5 | 11.8 | 23* [b] | 2 | 30-130/20 |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | | 50.5 | 40.8 | 81 | 50.5 | 40.4 | 80 | 1 | 30-130/20 |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | | 50.5 | 33.1 | 66 | 50.5 | 32.7 | 65 | 1 | 30-130/20 |
| 62-53-3 | Aniline | ND | | 50.5 | 23.7 | 47 | 50.5 | 24.0 | 48 | 1 | 40-140/20 |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | | 50.5 | 43.7 | 87 | 50.5 | 43.0 | 85 | 2 | 40-140/20 |
| 85-68-7 | Butyl benzyl phthalate | ND | | 50.5 | 51.3 | 102 | 50.5 | 50.5 | 100 | 2 | 40-140/20 |
| 100-51-6 | Benzyl Alcohol | ND | | 50.5 | 15.1 | 30* [a] | 50.5 | 12.6 | 25* [a] | 18 | 40-140/20 |
| 91-58-7 | 2-Chloronaphthalene | ND | | 50.5 | 40.0 | 79 | 50.5 | 39.2 | 78 | 2 | 40-140/20 |
| 106-47-8 | 4-Chloroaniline | ND | | 50.5 | 33.9 | 67 | 50.5 | 33.5 | 66 | 1 | 40-140/20 |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | | 50.5 | 36.1 | 71 | 50.5 | 36.0 | 71 | 0 | 40-140/20 |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | | 50.5 | 36.2 | 72 | 50.5 | 36.5 | 72 | 1 | 40-140/20 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | | 50.5 | 44.5 | 88 | 50.5 | 44.3 | 88 | 0 | 40-140/20 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | | 50.5 | 41.1 | 81 | 50.5 | 41.1 | 81 | 0 | 40-140/20 |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | | 50.5 | 42.3 | 84 | 50.5 | 41.3 | 82 | 2 | 40-140/20 |
| 121-14-2 | 2,4-Dinitrotoluene | ND | | 50.5 | 43.8 | 87 | 50.5 | 43.5 | 86 | 1 | 40-140/20 |
| 606-20-2 | 2,6-Dinitrotoluene | ND | | 50.5 | 42.0 | 83 | 50.5 | 41.5 | 82 | 1 | 40-140/20 |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | | 50.5 | 34.3 | 68 | 50.5 | 33.9 | 67 | 1 | 40-140/20 |
| 132-64-9 | Dibenzofuran | ND | | 50.5 | 38.7 | 77 | 50.5 | 38.6 | 76 | 0 | 40-140/20 |
| 84-74-2 | Di-n-butyl phthalate | 0.41 | J | 50.5 | 45.2 | 89 | 50.5 | 44.2 | 87 | 2 | 40-140/20 |
| 117-84-0 | Di-n-octyl phthalate | ND | | 50.5 | 52.9 | 105 | 50.5 | 51.9 | 103 | 2 | 40-140/20 |
| 84-66-2 | Diethyl phthalate | ND | | 50.5 | 45.8 | 91 | 50.5 | 45.7 | 90 | 0 | 40-140/20 |
| 131-11-3 | Dimethyl phthalate | ND | | 50.5 | 43.7 | 87 | 50.5 | 43.5 | 86 | 0 | 40-140/20 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | | 50.5 | 51.8 | 103 | 50.5 | 50.4 | 100 | 3 | 40-140/20 |
| 118-74-1 | Hexachlorobenzene | ND | | 50.5 | 42.9 | 85 | 50.5 | 42.1 | 83 | 2 | 40-140/20 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37571-MS | R38150.D | 1 | 04/14/14 | WK | 04/11/14 | OP37571 | MSR1407 |
| OP37571-MSD | R38151.D | 1 | 04/14/14 | WK | 04/11/14 | OP37571 | MSR1407 |
| MC29300-23 | R38152.D | 1 | 04/14/14 | WK | 04/11/14 | OP37571 | MSR1407 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29574-2, MC29574-3, MC29574-5



| CAS No. | Compound | MC29300-23 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 | 23.4 | 46 | 50.5 | 22.3 | 44 | 5 | 40-140/20 |
| 67-72-1 | Hexachloroethane | ND | | 50.5 | 26.2 | 52 | 50.5 | 24.9 | 49 | 5 | 40-140/20 |
| 78-59-1 | Isophorone | ND | | 50.5 | 35.5 | 70 | 50.5 | 35.1 | 69 | 1 | 40-140/20 |
| 88-74-4 | 2-Nitroaniline | ND | | 50.5 | 40.9 | 81 | 50.5 | 40.2 | 80 | 2 | 40-140/20 |
| 99-09-2 | 3-Nitroaniline | ND | | 50.5 | 39.2 | 78 | 50.5 | 38.9 | 77 | 1 | 40-140/20 |
| 100-01-6 | 4-Nitroaniline | ND | | 50.5 | 38.8 | 77 | 50.5 | 38.7 | 77 | 0 | 40-140/20 |
| 98-95-3 | Nitrobenzene | ND | | 50.5 | 35.1 | 69 | 50.5 | 34.9 | 69 | 1 | 40-140/20 |
| 62-75-9 | n-Nitrosodimethylamine | ND | | 50.5 | 21.9 | 43 | 50.5 | 22.2 | 44 | 1 | 40-140/20 |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | | 50.5 | 37.7 | 75 | 50.5 | 37.5 | 74 | 1 | 40-140/20 |
| 86-30-6 | N-Nitrosodiphenylamine | ND | | 50.5 | 41.5 | 82 | 50.5 | 40.7 | 81 | 2 | 40-140/20 |
| 110-86-1 | Pyridine | ND | | 50.5 | 18.6 | 37* [a] | 50.5 | 18.4 | 36* [a] | 1 | 40-140/20 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29300-23 | Limits |
|---|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 35% | 37% | 0%* [c] | 15-110% |
| 4165-62-2 | Phenol-d5 | 24% | 25% | 0%* [c] | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 59% | 65% | 0%* [c] | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 66% | 65% | 74% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 67% | 65% | 66% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 89% | 87% | 77% | 30-130% |

(a) Outside control limits. Blank Spike meets program technical requirements.
(b) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(c) Surrogate standard not added.

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37657-MS | R38281.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |
| OP37657-MSD | R38282.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |
| MC29400-19 | R38283.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29574-1

| CAS No. | Compound | MC29400-19 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 | 12.7 | 25* [a] | 50 | 12.9 | 26* [a] | 2 | 30-130/20 |
| 95-57-8 | 2-Chlorophenol | ND | | 50 | 36.2 | 72 | 50 | 34.3 | 69 | 5 | 30-130/20 |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | | 50 | 39.3 | 79 | 50 | 36.7 | 73 | 7 | 30-130/20 |
| 120-83-2 | 2,4-Dichlorophenol | ND | | 50 | 41.7 | 83 | 50 | 39.0 | 78 | 7 | 30-130/20 |
| 105-67-9 | 2,4-Dimethylphenol | ND | | 50 | 33.8 | 68 | 50 | 30.1 | 60 | 12 | 30-130/20 |
| 51-28-5 | 2,4-Dinitrophenol | ND | | 50 | 30.7 | 61 | 50 | 30.9 | 62 | 1 | 30-130/20 |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | | 50 | 41.6 | 83 | 50 | 41.0 | 82 | 1 | 30-130/20 |
| 95-48-7 | 2-Methylphenol | ND | | 50 | 30.6 | 61 | 50 | 28.3 | 57 | 8 | 30-130/20 |
| | 3&4-Methylphenol | ND | | 100 | 60.6 | 61 | 100 | 54.5 | 55 | 11 | 30-130/20 |
| 88-75-5 | 2-Nitrophenol | ND | | 50 | 43.2 | 86 | 50 | 39.0 | 78 | 10 | 30-130/20 |
| 100-02-7 | 4-Nitrophenol | ND | | 50 | 16.1 | 32 | 50 | 15.7 | 31 | 3 | 30-130/20 |
| 87-86-5 | Pentachlorophenol | ND | | 50 | 41.5 | 83 | 50 | 40.0 | 80 | 4 | 30-130/20 |
| 108-95-2 | Phenol | ND | | 50 | 15.5 | 31 | 50 | 14.7 | 29* [b] | 5 | 30-130/20 |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | | 50 | 44.6 | 89 | 50 | 41.6 | 83 | 7 | 30-130/20 |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | | 50 | 44.9 | 90 | 50 | 42.6 | 85 | 5 | 30-130/20 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29400-19 | Limits |
|---|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 45% | 47% | 38% | 15-110% |
| 4165-62-2 | Phenol-d5 | 30% | 28% | 24% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 91% | 89% | 74% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 76% | 74% | 72% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 84% | 78% | 64% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 93% | 91% | 90% | 30-130% |

(a) Outside control limits. Blank Spike meets program technical requirements.
(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:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37523-MS | R38021.D | 1 | 04/10/14 | KR | 04/09/14 | OP37523 | MSR1402 |
| OP37523-MSD | R38024.D | 1 | 04/10/14 | KR | 04/09/14 | OP37523 | MSR1402 |
| MC29574-1 | R38026.D | 1 | 04/10/14 | KR | 04/09/14 | OP37523 | MSR1402 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D BY SIM

MC29574-1, MC29574-2, MC29574-3, MC29574-4, MC29574-5



| CAS No. | Compound | MC29574-1 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 | | 54.3 | 45.4 | 84 | 52.6 | 42.4 | 81 | 7 | 40-140/20 |
| 208-96-8 | Acenaphthylene | ND | | 54.3 | 44.4 | 82 | 52.6 | 41.4 | 79 | 7 | 40-140/20 |
| 120-12-7 | Anthracene | ND | | 54.3 | 46.9 | 86 | 52.6 | 43.2 | 82 | 8 | 40-140/20 |
| 56-55-3 | Benzo(a)anthracene | ND | | 54.3 | 52.2 | 96 | 52.6 | 47.5 | 90 | 9 | 40-140/20 |
| 50-32-8 | Benzo(a)pyrene | ND | | 54.3 | 47.8 | 88 | 52.6 | 43.1 | 82 | 10 | 40-140/20 |
| 205-99-2 | Benzo(b)fluoranthene | ND | | 54.3 | 56.4 | 104 | 52.6 | 51.5 | 98 | 9 | 40-140/20 |
| 191-24-2 | Benzo(g,h,i)perylene | ND | | 54.3 | 54.7 | 101 | 52.6 | 49.5 | 94 | 10 | 40-140/20 |
| 207-08-9 | Benzo(k)fluoranthene | ND | | 54.3 | 53.0 | 98 | 52.6 | 47.6 | 90 | 11 | 40-140/20 |
| 218-01-9 | Chrysene | ND | | 54.3 | 47.7 | 88 | 52.6 | 43.2 | 82 | 10 | 40-140/20 |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | | 54.3 | 56.5 | 104 | 52.6 | 64.8 | 123 | 14 | 40-140/20 |
| 206-44-0 | Fluoranthene | ND | | 54.3 | 51.6 | 95 | 52.6 | 46.5 | 88 | 10 | 40-140/20 |
| 86-73-7 | Fluorene | ND | | 54.3 | 49.1 | 90 | 52.6 | 45.1 | 86 | 8 | 40-140/20 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | | 54.3 | 45.0 | 83 | 52.6 | 53.0 | 101 | 16 | 40-140/20 |
| 90-12-0 | 1-Methylnaphthalene | ND | | 54.3 | 41.3 | 76 | 52.6 | 41.8 | 79 | 1 | 40-140/20 |
| 91-57-6 | 2-Methylnaphthalene | ND | | 54.3 | 40.2 | 74 | 52.6 | 36.0 | 68 | 11 | 40-140/20 |
| 85-01-8 | Phenanthrene | 0.023 | JB | 54.3 | 48.2 | 89 | 52.6 | 44.5 | 85 | 8 | 40-140/20 |
| 129-00-0 | Pyrene | ND | | 54.3 | 49.7 | 91 | 52.6 | 45.0 | 86 | 10 | 40-140/20 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29574-1 | Limits |
|---|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 79% | 55% | 102% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 74% | 71% | 72% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 89% | 83% | 85% | 30-130% |

* = Outside of Control Limits.

# Semivolatile Internal Standard Area Summary



**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSR1402-CC1401 | **Injection Date:** | 04/10/14 |
| **Lab File ID:** | R38018.D | **Injection Time:** | 12:59 |
| **Instrument ID:** | GCMSR | **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 | 220800 | 5.44 | 754829 | 6.54 | 442123 | 8.08 | 763827 | 9.38 | 757866 | 12.00 | 1270984 | 13.71 |
| Upper Limit [a] | 441600 | 5.94 | 1509658 | 7.04 | 884246 | 8.58 | 1527654 | 9.88 | 1515732 | 12.50 | 2541968 | 14.21 |
| Lower Limit [b] | 110400 | 4.94 | 377415 | 6.04 | 221062 | 7.58 | 381914 | 8.88 | 378933 | 11.50 | 635492 | 13.21 |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OP37523-MB | 201139 | 5.44 | 687445 | 6.54 | 403888 | 8.08 | 701111 | 9.38 | 707299 | 11.99 | 1152667 | 13.71 |
| OP37523-BS | 196017 | 5.44 | 671958 | 6.54 | 392583 | 8.08 | 680727 | 9.38 | 685113 | 12.00 | 1121631 | 13.71 |
| OP37523-MS | 212087 | 5.44 | 725097 | 6.54 | 425962 | 8.08 | 737962 | 9.38 | 732955 | 12.00 | 1209440 | 13.71 |
| OP37523-MSD | 142492 | 5.44 | 643955 | 6.54 | 283020 | 8.08 | 697641 | 9.38 | 494105 | 12.00 | 816578 | 13.71 |
| MC29574-1 | 180582 | 5.44 | 508285 | 6.54 | 296281 | 8.08 | 515476 | 9.38 | 515444 | 11.99 | 852605 | 13.71 |
| MC29574-2 | 209647 | 5.44 | 519935 | 6.54 | 305913 | 8.08 | 739671 | 9.38 | 514234 | 11.99 | 848210 | 13.71 |
| MC29574-3 | 151861 | 5.44 | 652644 | 6.54 | 302738 | 8.08 | 530550 | 9.38 | 533344 | 11.99 | 899893 | 13.71 |
| MC29574-4 | 180891 | 5.44 | 475330 | 6.54 | 276434 | 8.08 | 482353 | 9.38 | 476744 | 11.99 | 781529 | 13.71 |
| MC29574-5 | 146219 | 5.44 | 712157 | 6.54 | 287867 | 8.08 | 500015 | 9.38 | 497818 | 11.99 | 819017 | 13.71 |

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:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSR1403-CC1399 | **Injection Date:** | 04/10/14 |
| **Lab File ID:** | R38036.D | **Injection Time:** | 20:48 |
| **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 | 181022 | 5.42 | 538184 | 6.52 | 314711 | 8.05 | 538332 | 9.36 | 584266 | 11.97 | 563706 | 13.68 |
| Upper Limit [a] | 362044 | 5.92 | 1076368 | 7.02 | 629422 | 8.55 | 1076664 | 9.86 | 1168532 | 12.47 | 1127412 | 14.18 |
| Lower Limit [b] | 90511 | 4.92 | 269092 | 6.02 | 157356 | 7.55 | 269166 | 8.86 | 292133 | 11.47 | 281853 | 13.18 |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OP37522-MB | 175785 | 5.41 | 669025 | 6.51 | 407493 | 8.05 | 696010 | 9.36 | 724201 | 11.96 | 518131 | 13.67 |
| OP37522-BS | 124430 | 5.42 | 461986 | 6.52 | 345899 | 8.05 | 475549 | 9.36 | 518221 | 11.97 | 510523 | 13.68 |
| OP37530-MB | 191692 | 5.41 | 709572 | 6.51 | 396296 | 8.05 | 540988 | 9.36 | 585449 | 11.96 | 575922 | 13.67 |
| OP37530-BS | 173531 | 5.42 | 579052 | 6.51 | 336251 | 8.05 | 589176 | 9.36 | 644727 | 11.97 | 631951 | 13.68 |
| OP37530-MS | 215939 | 5.42 | 821645 | 6.51 | 497389 | 8.05 | 879454 | 9.36 | 942735 | 11.97 | 914518 | 13.68 |
| OP37530-MSD | 205279 | 5.42 | 709932 | 6.52 | 449623 | 8.05 | 593734 | 9.36 | 634730 | 11.97 | 623020 | 13.68 |
| MC29300-14 | 158727 | 5.41 | 492107 | 6.51 | 415432 | 8.05 | 526137 | 9.36 | 569139 | 11.96 | 710645 | 13.67 |
| ZZZZZZ | 223962 | 5.41 | 828558 | 6.51 | 508870 | 8.05 | 805587 | 9.36 | 694589 | 11.96 | 680795 | 13.67 |
| ZZZZZZ | 207876 | 5.42 | 789337 | 6.51 | 446652 | 8.05 | 720998 | 9.36 | 610704 | 11.96 | 634364 | 13.67 |
| ZZZZZZ | 208342 | 5.41 | 778176 | 6.51 | 471989 | 8.05 | 811102 | 9.36 | 870972 | 11.96 | 847924 | 13.67 |
| ZZZZZZ | 210411 | 5.41 | 788081 | 6.51 | 477968 | 8.05 | 846027 | 9.36 | 889691 | 11.96 | 871463 | 13.67 |
| ZZZZZZ | 213828 | 5.41 | 803958 | 6.51 | 482612 | 8.05 | 838364 | 9.36 | 762589 | 11.96 | 628799 | 13.67 |
| OP37522-MS | 195478 | 5.42 | 736654 | 6.51 | 449761 | 8.05 | 791329 | 9.36 | 806989 | 11.97 | 653126 | 13.68 |
| OP37522-MSD | 171889 | 5.42 | 651974 | 6.51 | 396450 | 8.05 | 569675 | 9.36 | 594434 | 11.97 | 722814 | 13.68 |
| MC29574-1 | 212316 | 5.41 | 792918 | 6.51 | 480567 | 8.05 | 839326 | 9.36 | 866339 | 11.96 | 635069 | 13.67 |
| MC29574-4 | 194096 | 5.41 | 722979 | 6.51 | 441362 | 8.05 | 764080 | 9.36 | 814864 | 11.96 | 802020 | 13.67 |
| ZZZZZZ | 210139 | 5.42 | 790035 | 6.51 | 380738 | 8.05 | 786037 | 9.36 | 740562 | 11.96 | 911104 | 13.67 |

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:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSR1407-CC1399 | **Injection Date:** | 04/14/14 |
| **Lab File ID:** | R38137.D | **Injection Time:** | 16:43 |
| **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 | 161828 | 5.27 | 609042 | 6.37 | 368586 | 7.90 | 628020 | 9.21 | 652692 | 11.77 | 626035 | 13.46 |
| Upper Limit [a] | 323656 | 5.77 | 1218084 | 6.87 | 737172 | 8.40 | 1256040 | 9.71 | 1305384 | 12.27 | 1252070 | 13.96 |
| Lower Limit [b] | 80914 | 4.77 | 304521 | 5.87 | 184293 | 7.40 | 314010 | 8.71 | 326346 | 11.27 | 313018 | 12.96 |
| **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 | 201983 | 5.27 | 763542 | 6.37 | 458775 | 7.90 | 767707 | 9.20 | 772056 | 11.77 | 760302 | 13.46 |
| ZZZZZZ | 212365 | 5.27 | 795752 | 6.37 | 469421 | 7.90 | 782950 | 9.20 | 790622 | 11.77 | 751394 | 13.46 |
| ZZZZZZ | 204574 | 5.27 | 769017 | 6.37 | 458326 | 7.90 | 770332 | 9.20 | 772021 | 11.77 | 750762 | 13.46 |
| ZZZZZZ | 218347 | 5.27 | 811613 | 6.37 | 485963 | 7.90 | 809198 | 9.20 | 810553 | 11.77 | 757911 | 13.46 |
| ZZZZZZ | 203720 | 5.27 | 761402 | 6.37 | 456269 | 7.90 | 765046 | 9.20 | 757961 | 11.77 | 726223 | 13.46 |
| ZZZZZZ | 203697 | 5.27 | 750754 | 6.37 | 441736 | 7.90 | 733953 | 9.20 | 746844 | 11.77 | 721953 | 13.46 |
| ZZZZZZ | 218224 | 5.27 | 813235 | 6.37 | 484831 | 7.90 | 799026 | 9.20 | 793885 | 11.77 | 743438 | 13.46 |
| ZZZZZZ | 214867 | 5.27 | 801486 | 6.37 | 478054 | 7.90 | 796157 | 9.20 | 786009 | 11.77 | 751393 | 13.46 |
| ZZZZZZ | 231676 | 5.27 | 857040 | 6.37 | 512503 | 7.90 | 847888 | 9.20 | 859384 | 11.77 | 814280 | 13.46 |
| ZZZZZZ | 205626 | 5.27 | 773510 | 6.37 | 463708 | 7.90 | 766380 | 9.20 | 770364 | 11.77 | 726695 | 13.46 |
| OP37571-MB | 158479 | 5.27 | 598384 | 6.37 | 351537 | 7.90 | 591475 | 9.20 | 590885 | 11.77 | 562616 | 13.46 |
| OP37571-BS | 158815 | 5.27 | 595261 | 6.37 | 348113 | 7.90 | 594331 | 9.20 | 602116 | 11.77 | 569022 | 13.46 |
| OP37571-MS | 179326 | 5.27 | 668072 | 6.37 | 392819 | 7.90 | 656299 | 9.21 | 676297 | 11.77 | 648382 | 13.46 |
| OP37571-MSD | 169313 | 5.27 | 628741 | 6.37 | 367863 | 7.90 | 621569 | 9.21 | 633539 | 11.77 | 612155 | 13.46 |
| MC29300-23 | 167568 | 5.27 | 627660 | 6.37 | 378429 | 7.90 | 641807 | 9.20 | 654045 | 11.77 | 630028 | 13.46 |
| ZZZZZZ | 170073 | 5.27 | 639217 | 6.37 | 383268 | 7.90 | 635715 | 9.20 | 646310 | 11.76 | 625805 | 13.45 |
| ZZZZZZ | 167682 | 5.27 | 622298 | 6.37 | 369395 | 7.90 | 629945 | 9.20 | 651135 | 11.77 | 645804 | 13.47 |
| ZZZZZZ | 166133 | 5.27 | 619179 | 6.37 | 374228 | 7.90 | 639962 | 9.21 | 675287 | 11.78 | 666214 | 13.47 |
| MC29574-2 | 165883 | 5.27 | 613450 | 6.37 | 373495 | 7.90 | 629592 | 9.20 | 679302 | 11.77 | 657594 | 13.46 |
| MC29574-3 | 163552 | 5.27 | 602467 | 6.37 | 365223 | 7.90 | 608303 | 9.20 | 633415 | 11.77 | 617339 | 13.45 |
| MC29574-5 | 158926 | 5.27 | 585581 | 6.37 | 349215 | 7.90 | 589635 | 9.20 | 607964 | 11.77 | 588776 | 13.46 |
| ZZZZZZ | 168375 | 5.27 | 615770 | 6.37 | 376427 | 7.90 | 639549 | 9.20 | 658881 | 11.77 | 641513 | 13.46 |
| ZZZZZZ | 166572 | 5.27 | 615384 | 6.37 | 376264 | 7.90 | 640238 | 9.20 | 654347 | 11.77 | 648643 | 13.47 |
| ZZZZZZ | 152043 | 5.27 | 559572 | 6.37 | 340727 | 7.90 | 582371 | 9.20 | 607038 | 11.77 | 598203 | 13.46 |

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:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSR1411-CC1410 | **Injection Date:** | 04/21/14 |
| **Lab File ID:** | R38278.D | **Injection Time:** | 09:41 |
| **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 | 119472 | 5.41 | 428450 | 6.51 | 266822 | 8.04 | 473515 | 9.35 | 453402 | 11.94 | 394254 | 13.65 |
| Upper Limit [a] | 238944 | 5.91 | 856900 | 7.01 | 533644 | 8.54 | 947030 | 9.85 | 906804 | 12.44 | 788508 | 14.15 |
| Lower Limit [b] | 59736 | 4.91 | 214225 | 6.01 | 133411 | 7.54 | 236758 | 8.85 | 226701 | 11.44 | 197127 | 13.15 |
| **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** |
| OP37657-MB | 135006 | 5.41 | 489741 | 6.50 | 305204 | 8.04 | 538899 | 9.34 | 507315 | 11.94 | 444856 | 13.64 |
| OP37657-BS | 140201 | 5.41 | 472614 | 6.51 | 294251 | 8.04 | 514369 | 9.34 | 489336 | 11.94 | 421199 | 13.64 |
| OP37657-MS | 129939 | 5.41 | 469854 | 6.51 | 292550 | 8.04 | 512441 | 9.35 | 493469 | 11.94 | 427015 | 13.64 |
| OP37657-MSD | 130477 | 5.41 | 462134 | 6.51 | 290257 | 8.04 | 506022 | 9.34 | 486758 | 11.94 | 428401 | 13.64 |
| MC29400-19 | 163993 | 5.41 | 581099 | 6.50 | 337715 | 8.04 | 570831 | 9.34 | 548258 | 11.94 | 487442 | 13.64 |
| MC29574-1 [c] | 140523 | 5.41 | 451574 | 6.50 | 276508 | 8.04 | 492814 | 9.34 | 472387 | 11.94 | 415079 | 13.64 |
| ZZZZZZ | 152519 | 5.41 | 538696 | 6.50 | 346124 | 8.04 | 551955 | 9.34 | 493276 | 11.94 | 446137 | 13.64 |
| ZZZZZZ | 172189 | 5.41 | 615115 | 6.50 | 384310 | 8.04 | 672587 | 9.34 | 537100 | 11.94 | 481945 | 13.64 |
| ZZZZZZ | 167452 | 5.41 | 605031 | 6.50 | 343233 | 8.04 | 578386 | 9.34 | 551960 | 11.93 | 472241 | 13.64 |
| ZZZZZZ | 167281 | 5.41 | 605849 | 6.50 | 380770 | 8.04 | 667012 | 9.34 | 610631 | 11.94 | 483373 | 13.64 |
| ZZZZZZ | 175930 | 5.41 | 631190 | 6.50 | 393521 | 8.04 | 658956 | 9.34 | 560351 | 11.94 | 472653 | 13.64 |
| ZZZZZZ | 176994 | 5.41 | 635207 | 6.50 | 402564 | 8.04 | 700721 | 9.34 | 641216 | 11.94 | 558555 | 13.64 |
| ZZZZZZ | 137173 | 5.41 | 488477 | 6.50 | 303663 | 8.04 | 535300 | 9.34 | 519084 | 11.94 | 466318 | 13.64 |
| ZZZZZZ | 121079 | 5.41 | 439990 | 6.50 | 279915 | 8.04 | 487787 | 9.34 | 465322 | 11.94 | 413815 | 13.64 |

**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) Sample re-extracted beyond recommended holding time.

# Semivolatile Surrogate Recovery Summary



**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 |
|---|---|---|---|---|---|---|---|
| MC29574-1 | R38284.D | 47 | 29 | 92 | 74 | 78 | 94 |
| MC29574-1 | R38055.D | 1* a | 1* a | 3* a | 71 | 68 | 87 |
| MC29574-2 | R38158.D | 38 | 25 | 68 | 64 | 63 | 82 |
| MC29574-3 | R38159.D | 39 | 25 | 75 | 67 | 66 | 92 |
| MC29574-4 | R38058.D | 31 | 21 | 49 | 50 | 46 | 75 |
| MC29574-5 | R38160.D | 40 | 26 | 76 | 71 | 73 | 96 |
| OP37522-BS | R38039.D | 64 | 35 | 80 | 102 | 79 | 89 |
| OP37522-MB | R38038.D | 51 | 34 | 75 | 83 | 76 | 93 |
| OP37522-MS | R38053.D | 2* b | 1* b | 7* b | 78 | 73 | 92 |
| OP37522-MSD | R38054.D | 2* b | 1* b | 8* b | 78 | 69 | 82 |
| OP37571-BS | R38149.D | 40 | 28 | 67 | 70 | 65 | 94 |
| OP37571-MB | R38148.D | 42 | 27 | 67 | 69 | 67 | 96 |
| OP37571-MS | R38150.D | 35 | 24 | 59 | 66 | 67 | 89 |
| OP37571-MSD | R38151.D | 37 | 25 | 65 | 65 | 65 | 87 |
| OP37657-BS | R38280.D | 55 | 33 | 91 | 79 | 83 | 96 |
| OP37657-MB | R38279.D | 42 | 28 | 73 | 72 | 74 | 94 |
| OP37657-MS | R38281.D | 45 | 30 | 91 | 76 | 84 | 93 |
| OP37657-MSD | R38282.D | 47 | 28 | 89 | 74 | 78 | 91 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = 2-Fluorophenol | 15-110% |
| S2 = Phenol-d5 | 15-110% |
| S3 = 2,4,6-Tribromophenol | 15-110% |
| S4 = Nitrobenzene-d5 | 30-130% |
| S5 = 2-Fluorobiphenyl | 30-130% |
| S6 = Terphenyl-d14 | 30-130% |

(a) Outside control limits. Sample re-extracted/reanalyzed.
(b) Outside control limits due to possible matrix interference.

# Semivolatile Surrogate Recovery Summary



**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 |
|---|---|---|---|---|
| MC29574-1 | R38026.D | 102 | 72 | 85 |
| MC29574-2 | R38027.D | 68 | 63 | 87 |
| MC29574-3 | R38028.D | 65 | 64 | 85 |
| MC29574-4 | R38029.D | 51 | 47 | 76 |
| MC29574-5 | R38030.D | 45 | 61 | 77 |
| OP37523-BS | R38020.D | 85 | 80 | 89 |
| OP37523-MB | R38019.D | 85 | 77 | 94 |
| OP37523-MS | R38021.D | 79 | 74 | 89 |
| OP37523-MSD | R38024.D | 55 | 71 | 83 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = Nitrobenzene-d5 | 30-130% |
| S2 = 2-Fluorobiphenyl | 30-130% |
| S3 = Terphenyl-d14 | 30-130% |

## 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:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37559-MB | YZ89183.D | 1 | 04/11/14 | SZ | 04/10/14 | OP37559 | GYZ7539 |

**The QC reported here applies to the following samples:** **Method:** SW846 8011

MC29574-1, MC29574-2, MC29574-3, MC29574-4, MC29574-5, MC29574-7

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.015 | 0.0054 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.015 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 74% | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 75% | 36-173% |

# Blank Spike Summary



**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37559-BS | YZ89184.D | 1 | 04/11/14 | SZ | 04/10/14 | OP37559 | GYZ7539 |

**The QC reported here applies to the following samples:** **Method:** SW846 8011

MC29574-1, MC29574-2, MC29574-3, MC29574-4, MC29574-5, MC29574-7

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 0.071 | 0.056 | 79 | 60-140 |
| 106-93-4 | 1,2-Dibromoethane | 0.071 | 0.057 | 80 | 60-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 71% | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 83% | 36-173% |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37559-MS | YZ89185.D | 1 | 04/11/14 | SZ | 04/10/14 | OP37559 | GYZ7539 |
| OP37559-MSD | YZ89186.D | 1 | 04/11/14 | SZ | 04/10/14 | OP37559 | GYZ7539 |
| MC29574-1 | YZ89187.D | 1 | 04/11/14 | SZ | 04/10/14 | OP37559 | GYZ7539 |

**The QC reported here applies to the following samples:** **Method:** SW846 8011

MC29574-1, MC29574-2, MC29574-3, MC29574-4, MC29574-5, MC29574-7

| CAS No. | Compound | MC29574-1 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 | | 0.0685 | 0.052 | 76 | 0.0672 | 0.051 | 76 | 2 | 64-141/29 |
| 106-93-4 | 1,2-Dibromoethane | ND | | 0.0685 | 0.056 | 82 | 0.0672 | 0.048 | 71 | 15 | 63-163/27 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29574-1 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 92% | 89% | 101% | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 81% | 73% | 75% | 36-173% |

* = Outside of Control Limits.

# Volatile Surrogate Recovery Summary



**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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] |
|---|---|---|---|
| MC29574-1 | YZ89187.D | 101 | 75 |
| MC29574-2 | YZ89188.D | 95 | 77 |
| MC29574-3 | YZ89189.D | 79 | 70 |
| MC29574-4 | YZ89190.D | 97 | 80 |
| MC29574-5 | YZ89191.D | 91 | 82 |
| MC29574-7 | YZ89192.D | 103 | 82 |
| OP37559-BS | YZ89184.D | 71 | 83 |
| OP37559-MB | YZ89183.D | 74 | 75 |
| OP37559-MS | YZ89185.D | 92 | 81 |
| OP37559-MSD | YZ89186.D | 89 | 73 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = Bromofluorobenzene (S) | 36-173% |

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

# GC Surrogate Retention Time Summary



**Job Number:** MC29574
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | GYZ7539-ICC7539 | **Injection Date:** | 04/11/14 |
| **Lab File ID:** | YZ89179.D | **Injection Time:** | 14:47 |
| **Instrument ID:** | GCYZ | **Method:** | SW846 8011 |

| | S1 [a] RT | S1 [b] RT |
|---|---|---|
| Check Std | 4.08 | 4.76 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 [a] RT | S1 [b] RT |
|---|---|---|---|---|---|
| OP37559-MB | YZ89183.D | 04/11/14 | 17:18 | 4.08 | 4.76 |
| OP37560-MB | YZ89183A.D | 04/11/14 | 17:18 | 4.08 | 4.76 |
| OP37559-BS | YZ89184.D | 04/11/14 | 17:44 | 4.08 | 4.76 |
| OP37560-BS | YZ89184A.D | 04/11/14 | 17:44 | 4.08 | 4.76 |
| OP37559-MS | YZ89185.D | 04/11/14 | 18:10 | 4.08 | 4.76 |
| OP37560-MS | YZ89185A.D | 04/11/14 | 18:10 | 4.08 | 4.76 |
| OP37559-MSD | YZ89186.D | 04/11/14 | 18:36 | 4.08 | 4.76 |
| OP37560-MSD | YZ89186A.D | 04/11/14 | 18:36 | 4.08 | 4.76 |
| MC29300-20 | YZ89187A.D | 04/11/14 | 19:03 | 4.08 | 4.76 |
| MC29574-1 | YZ89187.D | 04/11/14 | 19:03 | 4.08 | 4.76 |
| MC29574-2 | YZ89188.D | 04/11/14 | 19:29 | 4.08 | 4.76 |
| MC29574-3 | YZ89189.D | 04/11/14 | 19:55 | 4.08 | 4.76 |
| MC29574-4 | YZ89190.D | 04/11/14 | 20:21 | 4.08 | 4.76 |
| MC29574-5 | YZ89191.D | 04/11/14 | 20:47 | 4.08 | 4.76 |
| MC29574-7 | YZ89192.D | 04/11/14 | 21:15 | 4.08 | 4.76 |

**Surrogate Compounds**

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

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*Automated Report*

# Technical Report for

## Shell Oil

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana,



SGS Accutest Job Number: MC29594

Sampling Date: 04/08/14

Report to:

AECOM, INC.

Melissa.mansker@aecom.com

ATTN: Melissa Mansker

Total number of pages in report: 110

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.

H. (Brad) Madadian
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO (MA00136) MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.



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SGS ACCUTEST

November 2, 2016

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

RE: SGS Accutest Job # MC29594

Dear Elizabeth Kunkel

As you are aware, SGS Accutest Inc. - Marlboroug has been conducting an extensive review of data associated with some historical Gas Chromatography-Mass Spectroscopy volatiles analyses. As a result of this review it was determined that some revisions of the original test report for this job were needed. These corrections have been incorporated into the revised report.

Please be assured that corrective actions have been put in place to address this matter and prevent a recurrence.

We apologize for any inconvenience that this issue may have caused. Please don't hesitate to contact us if we can be of further assistance.

Sincerely

**H. (Brad) Madadian**

Regional Laboratory Director
SGS Accutest Inc. - Marlborough

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# Sample Summary

Shell Oil

Job No: MC29594

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample Number | Collected Date | Time | By | Received | Matrix Code | Matrix Type | Client Sample ID |
|---|---|---|---|---|---|---|---|
| MC29594-1 | 04/08/14 | 10:00 | DMMM | 04/09/14 | AQ | Ground Water | MW6D-ROX-040814 |
| MC29594-2 | 04/08/14 | 11:05 | DMMM | 04/09/14 | AQ | Ground Water | MW6C-ROX-040814 |
| MC29594-3 | 04/08/14 | 12:20 | DMMM | 04/09/14 | AQ | Ground Water | MW6B-ROX-040814 |
| MC29594-4 | 04/08/14 | 12:45 | DMMM | 04/09/14 | AQ | Equipment Blank | MW6A-ROX-040814-EB |
| MC29594-5 | 04/08/14 | 13:25 | DMMM | 04/09/14 | AQ | Ground Water | MW6A-ROX-040814 |
| MC29594-6 | 04/08/14 | 13:25 | DMMM | 04/09/14 | AQ | Ground Water | MW6A-ROX-040814-DUP |
| MC29594-7 | 04/08/14 | 15:10 | DMMM | 04/09/14 | AQ | Ground Water | MW12-ROX-040814 |
| MC29594-8 | 04/08/14 | 00:00 | DMMM | 04/09/14 | AQ | Trip Blank Water | TB-ROX-040814-HCL |
| MC29594-9 | 04/08/14 | 00:00 | DMMM | 04/09/14 | AQ | Trip Blank Water | TB-ROX-040814-ST |

# SAMPLE DELIVERY GROUP CASE NARRATIVE



**Client:** She O **Job No** MC29594

**Site:** URSMOSTL:Roxana 2Q 4 GW/ 2 562973 03002 900 South Centra **Report Date** /2/20 6 2:59:22 PM

7 Samp e(s), 2 Tr p B ank(s) were co ected on 04/08/20 4 and were rece ved at SGS Accutest New Eng and on 04/09/20 4 proper y preserved, at Deg C and ntact These Samp es rece ved a job number of MC29594 A st ng of the Laboratory Samp e ID, C ent Samp e ID and dates of co ect on are presented n the Resu ts Summary Sect on of th s report -Ch orohexane, Benzeneth o , D benz(a,h)acr d ne, Indene, and Qu no ne were searched n the bra y search and reported on y f detect ons were found

Except as noted be ow, a method spec f ed ca brat ons and qua ty contro performance cr ter a were met for th s job For more nformat on, p ease refer to QC summary pages

## Volatiles by GCMS By Method SW846 8260C

**Matrix:** AQ **Batch ID:** MSV

- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29574- MS, MC29574- MSD were used as the QC samp es nd cated
- A method b anks for th s batch meet method spec f c cr ter a
- MSV -BS for 2-Ch oroethy v ny ether, Acro e n and MC29574- MS/MSD for Acro e n: Outs de contro m ts Assoc ated samp es are non-detect for th s compound
- Matr x Sp ke Recovery(s) for ,2,3-Tr ch orobenzene, 2-Ch oroethy v ny ether, Naphtha ene are outs de contro m ts Outs de contro m ts due to poss b e matr x nterference
- Matr x Sp ke Dup cate Recove y(s) for ,4-D oxane, 2-Ch oroethy v ny ether, Acetone are outs de contro m ts Outs de contro m ts due to poss b e matr x nterference
- RPD(s) for MSD for ,2,3-Tr ch orobenzene, Naphtha ene are outs de contro m ts for samp e MC29574- MSD H gh RPD due to poss b e matr x nterference and/or samp e non-homogene ty
- Acetone, acry on tr e, 2-butanone, ,4-d oxane: Cont nu ng Ca brat on Ver f cat on outs de of acceptance cr ter a Samp e resu t may be b ased ow

## Extractables by GCMS By Method SW846 8270D

**Matrix:** AQ **Batch ID:** OP37530

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29300- 4MS, MC29300- 4MSD were used as the QC samp es nd cated
- Samp e(s) MC29594- , MC29594-2, MC29594-3, MC29594-4 have compound(s) reported w th a "B" qua f er, nd cat ng ana yte s found n the assoc ated method b ank
- Matr x Sp ke Recovery(s) for Pyr d ne are outs de contro m ts Outs de contro m ts due to poss b e matr x nte ference Refer to B ank Sp ke
- RPD(s) for MSD for ,2-D pheny hydraz ne, 2-Ch oronaphtha ene, 2-N troan ne, 4,6-D n tro-o-creso , Buty benzy phtha ate, N-N trosod pheny am ne are outs de contro m ts for samp e OP37530-MSD H gh RPD due to poss b e matr x nterference and/or samp e non-homogene ty
- Ca brat on check standard MSR 404-ECC 399 not assoc ated w th th s job

**Matrix:** AQ **Batch ID:** OP3757

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29300-23MS, MC29300-23MSD were used as the QC samp es nd cated
- Samp e(s) MC29594-5, MC29594-6, MC29594-7 have compound(s) reported w th a "B" qua f er, nd cat ng ana yte s found n the assoc ated method b ank
- OP3757 -BS/MS/MSD Recovery(s) for 4-N tropheno , Benzy A coho , Pyr d ne are outs de contro m ts
- OP3757 -MS/MSD Recovery(s) for Pheno are outs de contro m ts Outs de contro m ts due to poss b e matr x nterference Refer to B ank Sp ke

## Extractables by GCMS By Method SW846 8270D BY SIM

**Matrix:** AQ **Batch ID:** OP3753

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- A method b anks for th s batch meet method spec f c cr ter a
- Samp e(s) MC29300- 5MS, MC29300- 5MSD were used as the QC samp es nd cated

## Volatiles by GC By Method SW846 8011

**Matrix:** AQ **Batch ID:** OP37559

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- A method b anks for th s batch meet method spec f c cr ter a
- Samp e(s) MC29574- MS, MC29574- MSD were used as the QC samp es nd cated

SGS Accutest New Eng and cert f es that a ana ys s were performed w th n method spec f cat on It s further recommended that th s report to be used n ts ent rety The Laborato y D rector for SGS Accutest New Eng and or ass gnee as ver f ed by the s gnature on the cover page has author zed the re ease of th s repo t(MC29594)

# Summary of Hits



**Job Number:** MC29594
**Account:** Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Collected:** 04/08/14



| Lab Sample ID / Analyte | Client Sample ID | Result/ Qual | RL | MDL | Units | Method |
|---|---|---|---|---|---|---|
| MC29594-1 | MW6D-ROX-040814 | | | | | |
| Benzene | | 6.4 | 0.50 | 0.32 | ug/l | SW846 8260C |
| Methyl Tert Butyl Ether | | 0.94 J | 1.0 | 0.51 | ug/l | SW846 8260C |
| Di-n-butyl phthalate | | 0.39 JB | 5.5 | 0.19 | ug/l | SW846 8270D |
| MC29594-2 | MW6C-ROX-040814 | | | | | |
| Benzene | | 2.1 | 0.50 | 0.32 | ug/l | SW846 8260C |
| Di-n-butyl phthalate | | 0.40 JB | 5.9 | 0.20 | ug/l | SW846 8270D |
| MC29594-3 | MW6B-ROX-040814 | | | | | |
| Benzene | | 0.90 | 0.50 | 0.32 | ug/l | SW846 8260C |
| Methyl Tert Butyl Ether | | 4.7 | 1.0 | 0.51 | ug/l | SW846 8260C |
| Di-n-butyl phthalate | | 0.43 JB | 5.3 | 0.18 | ug/l | SW846 8270D |
| Phenanthrene | | 0.018 J | 0.053 | 0.013 | ug/l | SW846 8270D BY SIM |
| MC29594-4 | MW6A-ROX-040814-EB | | | | | |
| Acetone [a] | | 6.5 J | 10 | 2.4 | ug/l | SW846 8260C |
| Di-n-butyl phthalate | | 0.33 JB | 5.1 | 0.18 | ug/l | SW846 8270D |
| MC29594-5 | MW6A-ROX-040814 | | | | | |
| Acetone [a] | | 110 | 10 | 2.4 | ug/l | SW846 8260C |
| Benzene | | 1.1 | 0.50 | 0.32 | ug/l | SW846 8260C |
| Methyl Tert Butyl Ether | | 0.86 J | 1.0 | 0.51 | ug/l | SW846 8260C |
| Di-n-butyl phthalate | | 0.75 JB | 5.6 | 0.19 | ug/l | SW846 8270D |
| bis(2-Ethylhexyl)phthalate | | 0.57 JB | 2.2 | 0.37 | ug/l | SW846 8270D |
| MC29594-6 | MW6A-ROX-040814-DUP | | | | | |
| Acetone [a] | | 116 | 10 | 2.4 | ug/l | SW846 8260C |
| Benzene | | 1.0 | 0.50 | 0.32 | ug/l | SW846 8260C |
| Methyl Tert Butyl Ether | | 1.0 | 1.0 | 0.51 | ug/l | SW846 8260C |
| Di-n-butyl phthalate | | 0.77 JB | 5.4 | 0.19 | ug/l | SW846 8270D |
| bis(2-Ethylhexyl)phthalate | | 0.66 JB | 2.2 | 0.36 | ug/l | SW846 8270D |
| MC29594-7 | MW12-ROX-040814 | | | | | |
| Di-n-butyl phthalate | | 0.60 JB | 5.1 | 0.17 | ug/l | SW846 8270D |
| bis(2-Ethylhexyl)phthalate | | 0.39 JB | 2.0 | 0.34 | ug/l | SW846 8270D |
| Phenanthrene | | 0.021 J | 0.057 | 0.014 | ug/l | SW846 8270D BY SIM |

# Summary of Hits

**Job Number:** MC29594
**Account:** Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Collected:** 04/08/14



| Lab Sample ID / Analyte | Client Sample ID | Result/ Qual | RL | MDL | Units | Method |
|---|---|---|---|---|---|---|
| MC29594-8 | TB-ROX-040814-HCL | | | | | |
| No hits reported in this sample. | | | | | | |
| MC29594-9 | TB-ROX-040814-ST | | | | | |
| No hits reported in this sample. | | | | | | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

## Sample Results

### Report of Analysis

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW6D-ROX-040814 | | |
| **Lab Sample ID:** | MC29594-1 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V29684.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |
| 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 [a] | ND | 10 | 2.4 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile [a] | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | 6.4 | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) [a] | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-040814 | | |
| **Lab Sample ID:** | MC29594-1 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane [a] | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | 0.94 | 1.0 | 0.51 | ug/l | J |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-040814 | | |
| **Lab Sample ID:** | MC29594-1 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 95% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 89% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 90% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040814 | | |
| **Lab Sample ID:** | MC29594-1 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38046.D | 1 | 04/11/14 | KR | 04/09/14 | OP37530 | MSR1403 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 910 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 | 5.5 | 0.34 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 11 | 0.91 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 11 | 0.44 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 11 | 0.62 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 22 | 2.7 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 11 | 2.1 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 11 | 0.25 | ug/l | |
| | 3&4-Methylphenol | ND | 11 | 0.51 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 11 | 3.2 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 22 | 0.59 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 11 | 1.2 | ug/l | |
| 108-95-2 | Phenol | ND | 5.5 | 0.33 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 11 | 0.41 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 11 | 0.19 | ug/l | |
| 62-53-3 | Aniline | ND | 11 | 0.70 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.5 | 0.52 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.5 | 0.58 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 11 | 2.5 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.5 | 0.34 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 11 | 0.61 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.5 | 0.31 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.5 | 0.38 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.5 | 0.36 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.5 | 0.28 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.5 | 0.26 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 11 | 0.50 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 11 | 0.33 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.5 | 0.29 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.2 | 0.28 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.39 | 5.5 | 0.19 | ug/l | JB |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.5 | 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:** | MW6D-ROX-040814 | | |
| **Lab Sample ID:** | MC29594-1 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**ABN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 84-66-2 | Diethyl phthalate | ND | 5.5 | 0.22 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.5 | 0.37 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.2 | 0.37 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.5 | 0.32 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 11 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.5 | 0.33 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.5 | 0.49 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 11 | 0.44 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 11 | 1.5 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 11 | 2.4 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.5 | 0.43 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.5 | 1.1 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.5 | 0.44 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.5 | 0.21 | ug/l | |
| 110-86-1 | Pyridine | ND | 11 | 0.57 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 29% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 20% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 66% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 71% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 72% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 84% | | 30-130% |

| 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-040814 | | |
| **Lab Sample ID:** | MC29594-1 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88469.D | 1 | 04/10/14 | MR | 04/09/14 | OP37531 | MSI3294 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 910 ml | 1.0 ml |
| Run #2 | | |

**BN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | ND | 0.11 | 0.076 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.11 | 0.054 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.11 | 0.10 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.055 | 0.021 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.11 | 0.032 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.055 | 0.035 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.11 | 0.030 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.11 | 0.042 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.11 | 0.026 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.11 | 0.035 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.11 | 0.045 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.11 | 0.11 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.11 | 0.034 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.22 | 0.055 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.22 | 0.082 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 0.055 | 0.014 | ug/l | |
| 129-00-0 | Pyrene | ND | 0.11 | 0.042 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 66% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 65% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 89% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040814 | | |
| **Lab Sample ID:** | MC29594-1 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89194.D | 1 | 04/11/14 | SZ | 04/10/14 | OP37559 | GYZ7539 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 37.2 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0051 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 120% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 84% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040814 | | |
| **Lab Sample ID:** | MC29594-2 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V29685.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |
| 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 [a] | ND | 10 | 2.4 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile [a] | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | 2.1 | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) [a] | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-040814 | | |
| **Lab Sample ID:** | MC29594-2 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane [a] | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-040814 | | |
| **Lab Sample ID:** | MC29594-2 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 94% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 89% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 94% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040814 | | |
| **Lab Sample ID:** | MC29594-2 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38047.D | 1 | 04/11/14 | KR | 04/09/14 | OP37530 | MSR1403 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 850 ml | 1.0 ml |
| Run #2 | | |

**ABN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 12 | 2.9 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 5.9 | 0.36 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 12 | 0.97 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 12 | 0.47 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 12 | 0.66 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 2.9 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 12 | 2.3 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 12 | 0.27 | ug/l | |
| | 3&4-Methylphenol | ND | 12 | 0.55 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 12 | 3.4 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 0.63 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 12 | 1.3 | ug/l | |
| 108-95-2 | Phenol | ND | 5.9 | 0.36 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 12 | 0.44 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 12 | 0.21 | ug/l | |
| 62-53-3 | Aniline | ND | 12 | 0.75 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.9 | 0.55 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.9 | 0.62 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 12 | 2.7 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.9 | 0.37 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 12 | 0.66 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.9 | 0.34 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.9 | 0.41 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.9 | 0.39 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.9 | 0.30 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.9 | 0.28 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 12 | 0.54 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 12 | 0.35 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.9 | 0.31 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.4 | 0.30 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.40 | 5.9 | 0.20 | ug/l | JB |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.9 | 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:** | MW6C-ROX-040814 | | |
| **Lab Sample ID:** | MC29594-2 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**ABN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 84-66-2 | Diethyl phthalate | ND | 5.9 | 0.24 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.9 | 0.40 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.4 | 0.39 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.9 | 0.34 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 12 | 1.5 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.9 | 0.36 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.9 | 0.53 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 12 | 0.47 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 12 | 1.6 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 12 | 2.5 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.9 | 0.46 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.9 | 1.2 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.9 | 0.47 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.9 | 0.23 | ug/l | |
| 110-86-1 | Pyridine | ND | 12 | 0.61 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 31% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 22% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 67% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 72% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 69% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 85% | | 30-130% |

| 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-040814 | | |
| **Lab Sample ID:** | MC29594-2 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88470.D | 1 | 04/10/14 | MR | 04/09/14 | OP37531 | MSI3294 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 850 ml | 1.0 ml |
| Run #2 | | |

**BN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | ND | 0.12 | 0.081 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.12 | 0.058 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.12 | 0.11 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.059 | 0.023 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.12 | 0.034 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.059 | 0.037 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.12 | 0.032 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.12 | 0.045 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.12 | 0.028 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.12 | 0.038 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.12 | 0.048 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.12 | 0.12 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.12 | 0.036 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.24 | 0.059 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.24 | 0.087 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 0.059 | 0.015 | ug/l | |
| 129-00-0 | Pyrene | ND | 0.12 | 0.045 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 68% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 67% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 90% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates 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-040814 | | |
| **Lab Sample ID:** | MC29594-2 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89195.D | 1 | 04/11/14 | SZ | 04/10/14 | OP37559 | GYZ7539 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.9 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0051 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 105% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 83% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040814 | | |
| **Lab Sample ID:** | MC29594-3 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V29686.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |
| 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 [a] | ND | 10 | 2.4 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile [a] | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | 0.90 | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) [a] | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-040814 | | |
| **Lab Sample ID:** | MC29594-3 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane [a] | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | 4.7 | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-040814 | | |
| **Lab Sample ID:** | MC29594-3 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 96% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 89% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 93% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040814 | | |
| **Lab Sample ID:** | MC29594-3 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38048.D | 1 | 04/11/14 | KR | 04/09/14 | OP37530 | MSR1403 |
| 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 | 0.33 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 11 | 0.88 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 11 | 0.42 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 11 | 0.60 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 21 | 2.7 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 11 | 2.1 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 11 | 0.24 | ug/l | |
| | 3&4-Methylphenol | ND | 11 | 0.50 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 11 | 3.1 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 21 | 0.57 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 11 | 1.2 | ug/l | |
| 108-95-2 | Phenol | ND | 5.3 | 0.32 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 11 | 0.39 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 11 | 0.19 | ug/l | |
| 62-53-3 | Aniline | ND | 11 | 0.68 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.3 | 0.50 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.3 | 0.56 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 11 | 2.4 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.3 | 0.33 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 11 | 0.59 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.3 | 0.30 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.3 | 0.37 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.3 | 0.35 | 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 | 0.26 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 11 | 0.49 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 11 | 0.32 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.3 | 0.28 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.1 | 0.28 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.43 | 5.3 | 0.18 | ug/l | JB |
| 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:** | MW6B-ROX-040814 | | |
| **Lab Sample ID:** | MC29594-3 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.21 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.3 | 0.36 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.1 | 0.35 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.3 | 0.31 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 11 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.3 | 0.32 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.3 | 0.48 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 11 | 0.42 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 11 | 1.5 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 11 | 2.3 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.3 | 0.42 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.3 | 1.1 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.3 | 0.43 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.3 | 0.21 | ug/l | |
| 110-86-1 | Pyridine | ND | 11 | 0.55 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 26% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 18% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 59% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 60% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 58% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 75% | | 30-130% |

| 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-040814 | | |
| **Lab Sample ID:** | MC29594-3 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88471.D | 1 | 04/10/14 | MR | 04/09/14 | OP37531 | MSI3294 |
| 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 | 0.073 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.11 | 0.053 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.11 | 0.098 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.053 | 0.021 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.11 | 0.031 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.053 | 0.034 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.11 | 0.029 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.11 | 0.041 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.11 | 0.025 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.11 | 0.034 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.11 | 0.043 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.11 | 0.11 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.11 | 0.033 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.21 | 0.053 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.21 | 0.079 | ug/l | |
| 85-01-8 | Phenanthrene | 0.018 | 0.053 | 0.013 | ug/l | J |
| 129-00-0 | Pyrene | ND | 0.11 | 0.041 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 56% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 56% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 79% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040814 | | |
| **Lab Sample ID:** | MC29594-3 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89196.D | 1 | 04/11/14 | SZ | 04/10/14 | OP37559 | GYZ7539 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 35.8 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.015 | 0.0053 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.015 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 120% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 92% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040814-EB | | |
| **Lab Sample ID:** | MC29594-4 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Equipment Blank | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V29679.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |
| 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 [a] | 6.5 | 10 | 2.4 | ug/l | J |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile [a] | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) [a] | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-040814-EB | | |
| **Lab Sample ID:** | MC29594-4 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Equipment Blank | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane [a] | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-040814-EB | | |
| **Lab Sample ID:** | MC29594-4 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Equipment Blank | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 89% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 84% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 91% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040814-EB | | |
| **Lab Sample ID:** | MC29594-4 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Equipment Blank | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38049.D | 1 | 04/11/14 | KR | 04/09/14 | OP37530 | MSR1403 |
| 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 | 0.32 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 10 | 0.84 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 10 | 0.40 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 10 | 0.57 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 20 | 2.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 2.0 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 10 | 0.23 | ug/l | |
| | 3&4-Methylphenol | ND | 10 | 0.48 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 10 | 2.9 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 20 | 0.55 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 10 | 1.1 | ug/l | |
| 108-95-2 | Phenol | ND | 5.1 | 0.31 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 10 | 0.38 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 10 | 0.18 | ug/l | |
| 62-53-3 | Aniline | ND | 10 | 0.65 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.1 | 0.48 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.1 | 0.54 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 10 | 2.3 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.1 | 0.32 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 10 | 0.57 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.1 | 0.29 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.1 | 0.36 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.1 | 0.34 | 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 | 0.24 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 10 | 0.47 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 10 | 0.31 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.1 | 0.27 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.0 | 0.26 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.33 | 5.1 | 0.18 | ug/l | JB |
| 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-040814-EB | | |
| **Lab Sample ID:** | MC29594-4 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Equipment Blank | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.20 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.1 | 0.35 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.0 | 0.34 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.1 | 0.30 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 10 | 1.3 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.1 | 0.31 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.1 | 0.46 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 0.40 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 1.4 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 2.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.1 | 0.40 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.1 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.1 | 0.41 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.1 | 0.20 | ug/l | |
| 110-86-1 | Pyridine | ND | 10 | 0.53 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 32% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 22% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 53% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 54% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 49% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 78% | | 30-130% |

| 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-040814-EB | | |
| **Lab Sample ID:** | MC29594-4 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Equipment Blank | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88472.D | 1 | 04/10/14 | MR | 04/09/14 | OP37531 | MSI3294 |
| 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 | 0.070 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.10 | 0.051 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.10 | 0.094 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.051 | 0.020 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.10 | 0.029 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.051 | 0.032 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.10 | 0.027 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.10 | 0.039 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.10 | 0.024 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.10 | 0.033 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.10 | 0.041 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.10 | 0.10 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.10 | 0.031 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.20 | 0.051 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.20 | 0.076 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 0.051 | 0.013 | ug/l | |
| 129-00-0 | Pyrene | ND | 0.10 | 0.039 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 50% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 45% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 72% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates 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-040814-EB | | |
| **Lab Sample ID:** | MC29594-4 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Equipment Blank | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89197.D | 1 | 04/11/14 | SZ | 04/10/14 | OP37559 | GYZ7539 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.7 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0052 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 104% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 98% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040814 | | |
| **Lab Sample ID:** | MC29594-5 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V29687.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |
| 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 [a] | 110 | 10 | 2.4 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile [a] | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | 1.1 | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) [a] | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-040814 | | |
| **Lab Sample ID:** | MC29594-5 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane [a] | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | 0.86 | 1.0 | 0.51 | ug/l | J |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-040814 | | |
| **Lab Sample ID:** | MC29594-5 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 92% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 89% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 91% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040814 | | |
| **Lab Sample ID:** | MC29594-5 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38161.D | 1 | 04/15/14 | WK | 04/11/14 | OP37571 | MSR1407 |
| 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 | 0.34 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 11 | 0.92 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 11 | 0.44 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 11 | 0.62 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 22 | 2.8 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 11 | 2.1 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 11 | 0.25 | ug/l | |
| | 3&4-Methylphenol | ND | 11 | 0.52 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 11 | 3.2 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 22 | 0.59 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 11 | 1.2 | ug/l | |
| 108-95-2 | Phenol | ND | 5.6 | 0.34 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 11 | 0.41 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 11 | 0.19 | ug/l | |
| 62-53-3 | Aniline | ND | 11 | 0.71 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.6 | 0.52 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.6 | 0.59 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 11 | 2.5 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.6 | 0.35 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 11 | 0.62 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.6 | 0.32 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.6 | 0.39 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.6 | 0.37 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.6 | 0.28 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.6 | 0.27 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 11 | 0.51 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 11 | 0.33 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.6 | 0.30 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.2 | 0.29 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.75 | 5.6 | 0.19 | ug/l | JB |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.6 | 0.31 | ug/l | |

ND = Not detected MDL = Method Detection Limit
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E = Indicates value exceeds calibration range
J = Indicates 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-040814 | | |
| **Lab Sample ID:** | MC29594-5 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.22 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.6 | 0.38 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 0.57 | 2.2 | 0.37 | ug/l | JB |
| 118-74-1 | Hexachlorobenzene | ND | 5.6 | 0.32 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 11 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.6 | 0.34 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.6 | 0.50 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 11 | 0.44 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 11 | 1.5 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 11 | 2.4 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.6 | 0.43 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.6 | 1.1 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.6 | 0.45 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.6 | 0.21 | ug/l | |
| 110-86-1 | Pyridine | ND | 11 | 0.57 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 42% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 28% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 81% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 74% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 76% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 94% | | 30-130% |

| 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-040814 | | |
| **Lab Sample ID:** | MC29594-5 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88473.D | 1 | 04/10/14 | MR | 04/09/14 | OP37531 | MSI3294 |
| 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 | 0.075 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.11 | 0.054 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.11 | 0.10 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.054 | 0.021 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.11 | 0.031 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.054 | 0.034 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.11 | 0.029 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.11 | 0.042 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.11 | 0.026 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.11 | 0.035 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.11 | 0.044 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.11 | 0.11 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.11 | 0.033 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.22 | 0.054 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.22 | 0.081 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 0.054 | 0.014 | ug/l | |
| 129-00-0 | Pyrene | ND | 0.11 | 0.042 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 66% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 67% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 89% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040814 | | |
| **Lab Sample ID:** | MC29594-5 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89198.D | 1 | 04/11/14 | SZ | 04/10/14 | OP37559 | GYZ7539 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.0 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.015 | 0.0053 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.015 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 95% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 96% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040814-DUP | | |
| **Lab Sample ID:** | MC29594-6 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V29688.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |
| 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 [a] | 116 | 10 | 2.4 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile [a] | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | 1.0 | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) [a] | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-040814-DUP | | |
| **Lab Sample ID:** | MC29594-6 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane [a] | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | 1.0 | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-040814-DUP | | |
| **Lab Sample ID:** | MC29594-6 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 91% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 88% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 92% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040814-DUP | | |
| **Lab Sample ID:** | MC29594-6 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38162.D | 1 | 04/15/14 | WK | 04/11/14 | OP37571 | MSR1407 |
| 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 | 0.34 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 11 | 0.90 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 11 | 0.43 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 11 | 0.61 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 22 | 2.7 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 11 | 2.1 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 11 | 0.25 | ug/l | |
| | 3&4-Methylphenol | ND | 11 | 0.51 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 11 | 3.1 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 22 | 0.58 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 11 | 1.2 | ug/l | |
| 108-95-2 | Phenol | ND | 5.4 | 0.33 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 11 | 0.40 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 11 | 0.19 | ug/l | |
| 62-53-3 | Aniline | ND | 11 | 0.69 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.4 | 0.51 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.4 | 0.58 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 11 | 2.5 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.4 | 0.34 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 11 | 0.61 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.4 | 0.31 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.4 | 0.38 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.4 | 0.36 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.4 | 0.27 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.4 | 0.26 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 11 | 0.50 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 11 | 0.33 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.4 | 0.29 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.2 | 0.28 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.77 | 5.4 | 0.19 | 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:** | MW6A-ROX-040814-DUP | | |
| **Lab Sample ID:** | MC29594-6 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.22 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.4 | 0.37 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 0.66 | 2.2 | 0.36 | ug/l | JB |
| 118-74-1 | Hexachlorobenzene | ND | 5.4 | 0.31 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 11 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.4 | 0.33 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.4 | 0.49 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 11 | 0.43 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 11 | 1.5 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 11 | 2.3 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.4 | 0.43 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.4 | 1.1 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.4 | 0.44 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.4 | 0.21 | ug/l | |
| 110-86-1 | Pyridine | ND | 11 | 0.56 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 44% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 29% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 83% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 74% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 76% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 95% | | 30-130% |

| 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-040814-DUP | | |
| **Lab Sample ID:** | MC29594-6 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88474.D | 1 | 04/10/14 | MR | 04/09/14 | OP37531 | MSI3294 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 910 ml | 1.0 ml |
| Run #2 | | |

**BN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | ND | 0.11 | 0.076 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.11 | 0.054 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.11 | 0.10 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.055 | 0.021 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.11 | 0.032 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.055 | 0.035 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.11 | 0.030 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.11 | 0.042 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.11 | 0.026 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.11 | 0.035 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.11 | 0.045 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.11 | 0.11 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.11 | 0.034 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.22 | 0.055 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.22 | 0.082 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 0.055 | 0.014 | ug/l | |
| 129-00-0 | Pyrene | ND | 0.11 | 0.042 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 69% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 67% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 87% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates 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-040814-DUP | | |
| **Lab Sample ID:** | MC29594-6 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89199.D | 1 | 04/12/14 | SZ | 04/10/14 | OP37559 | GYZ7539 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.9 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0051 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 105% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 115% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040814 | | |
| **Lab Sample ID:** | MC29594-7 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V29689.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |
| 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 [a] | ND | 10 | 2.4 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile [a] | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) [a] | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-040814 | | |
| **Lab Sample ID:** | MC29594-7 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane [a] | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-040814 | | |
| **Lab Sample ID:** | MC29594-7 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 94% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 90% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 92% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040814 | | |
| **Lab Sample ID:** | MC29594-7 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38163.D | 1 | 04/15/14 | WK | 04/11/14 | OP37571 | MSR1407 |
| 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 | 0.31 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 10 | 0.83 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 10 | 0.40 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 10 | 0.57 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 20 | 2.5 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 10 | 0.23 | ug/l | |
| | 3&4-Methylphenol | ND | 10 | 0.47 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 10 | 2.9 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 20 | 0.54 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 10 | 1.1 | ug/l | |
| 108-95-2 | Phenol | ND | 5.1 | 0.31 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 10 | 0.37 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 10 | 0.18 | ug/l | |
| 62-53-3 | Aniline | ND | 10 | 0.64 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.1 | 0.48 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.1 | 0.54 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 10 | 2.3 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.1 | 0.32 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 10 | 0.56 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.1 | 0.29 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.1 | 0.35 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.1 | 0.34 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.1 | 0.25 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.1 | 0.24 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 10 | 0.46 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 10 | 0.30 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.1 | 0.27 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.0 | 0.26 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.60 | 5.1 | 0.17 | ug/l | JB |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.1 | 0.28 | 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-040814 | | |
| **Lab Sample ID:** | MC29594-7 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.20 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.1 | 0.34 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 0.39 | 2.0 | 0.34 | ug/l | JB |
| 118-74-1 | Hexachlorobenzene | ND | 5.1 | 0.29 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 10 | 1.3 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.1 | 0.31 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.1 | 0.45 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 0.40 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 1.4 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 2.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.1 | 0.40 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.1 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.1 | 0.41 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.1 | 0.19 | ug/l | |
| 110-86-1 | Pyridine | ND | 10 | 0.52 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 45% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 29% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 80% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 79% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 77% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 98% | | 30-130% |

| 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-040814 | | |
| **Lab Sample ID:** | MC29594-7 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88475.D | 1 | 04/10/14 | MR | 04/09/14 | OP37531 | MSI3294 |
| 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 | 0.078 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.11 | 0.056 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.11 | 0.10 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.057 | 0.022 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.11 | 0.033 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.057 | 0.036 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.11 | 0.031 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.11 | 0.044 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.11 | 0.027 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.11 | 0.036 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.11 | 0.046 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.11 | 0.11 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.11 | 0.035 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.23 | 0.057 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.23 | 0.084 | ug/l | |
| 85-01-8 | Phenanthrene | 0.021 | 0.057 | 0.014 | ug/l | J |
| 129-00-0 | Pyrene | ND | 0.11 | 0.044 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 60% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 59% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 90% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040814 | | |
| **Lab Sample ID:** | MC29594-7 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89200.D | 1 | 04/12/14 | SZ | 04/10/14 | OP37559 | GYZ7539 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 37.2 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0051 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 106% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 84% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040814-HCL | | |
| **Lab Sample ID:** | MC29594-8 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V29676.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |
| 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 [a] | ND | 10 | 2.4 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile [a] | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) [a] | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-040814-HCL | | |
| **Lab Sample ID:** | MC29594-8 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane [a] | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-040814-HCL | | |
| **Lab Sample ID:** | MC29594-8 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 91% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 86% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 92% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040814-ST | | |
| **Lab Sample ID:** | MC29594-9 | **Date Sampled:** | 04/08/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/09/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89201.D | 1 | 04/12/14 | SZ | 04/10/14 | OP37559 | GYZ7539 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.7 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0052 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 102% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 80% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

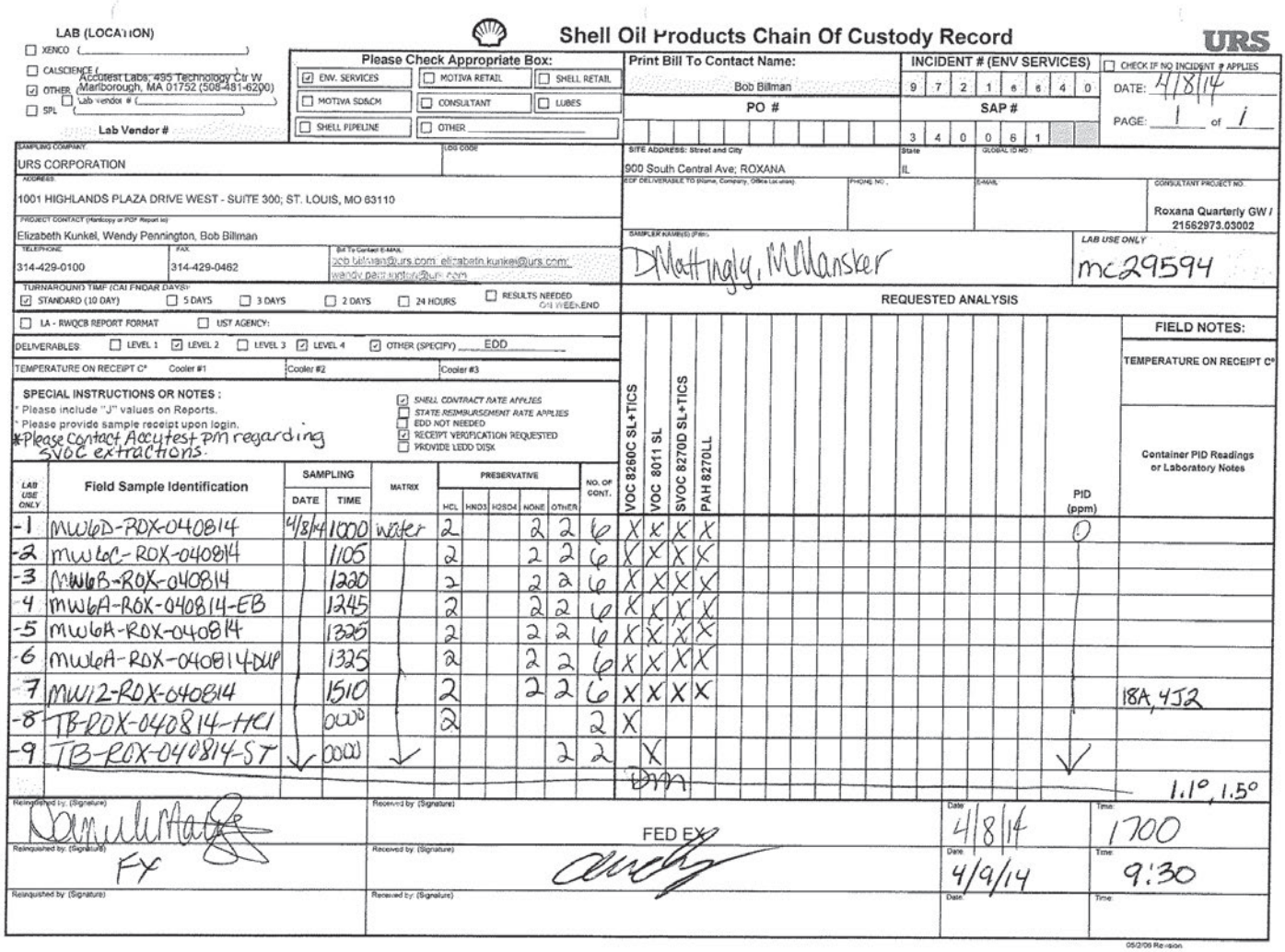
## Misc. Forms



# Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



LAB (LOCATION)
☐ XENCO (_____)
☐ CALSCIENCE (_____)
☑ OTHER Accutest Labs; 495 Technology Ctr W Marlborough, MA 01752 (508-481-6200)
☐ SPL (_____)
Lab Vendor #

Shell Oil Products Chain Of Custody Record

URS

Please Check Appropriate Box:
☑ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SD&CM ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name: Bob Billman
PO #
INCIDENT # (ENV SERVICES): 9721864 0
SAP #: 340061
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 4/8/14
PAGE: 1 of 1

SAMPLING COMPANY: URS CORPORATION
LOG CODE:
ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300; ST. LOUIS, MO 63110
PROJECT CONTACT (Hardcopy or PDF Report to): Elizabeth Kunkel, Wendy Pennington, Bob Billman
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: bob.billman@urs.com; elizabeth.kunkel@urs.com; wendy.pennington@urs.com
SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA
State: IL
GLOBAL ID NO.:
EDF DELIVERABLE TO (Name, Company, Office Location):
PHONE NO.:
E-MAIL:
CONSULTANT PROJECT NO.: Roxana Quarterly GW / 21562973.03002
SAMPLER NAME(S) (Print): D Mattingly, M Manske
LAB USE ONLY: mc29594

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.
*Please contact Accutest PM regarding SVOC extractions.

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD 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 | PID (ppm) | Container PID Readings or Laboratory Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -1 | MW6D-ROX-040814 | 4/8/14 | 1000 | water | 2 | | | 2 | 2 | 6 | X | X | X | X | 0 | |
| -2 | MW6C-ROX-040814 | | 1105 | | 2 | | | 2 | 2 | 6 | X | X | X | X | | |
| -3 | MW6B-ROX-040814 | | 1200 | | 2 | | | 2 | 2 | 6 | X | X | X | X | | |
| -4 | MW6A-ROX-040814-EB | | 1245 | | 2 | | | 2 | 2 | 6 | X | X | X | X | | |
| -5 | MW6A-ROX-040814 | | 1325 | | 2 | | | 2 | 2 | 6 | X | X | X | X | | |
| -6 | MW6A-ROX-040814-DUP | | 1325 | | 2 | | | 2 | 2 | 6 | X | X | X | X | | |
| -7 | MW12-ROX-040814 | | 1510 | | 2 | | | 2 | 2 | 6 | X | X | X | X | | 18A, 4J2 |
| -8 | TB-ROX-040814-HCl | | 0000 | | 2 | | | | | 2 | X | | | | | |
| -9 | TB-ROX-040814-ST | ↓ | 0000 | ↓ | | | | | 2 | 2 | | X | | | ↓ | |

FIELD NOTES:
TEMPERATURE ON RECEIPT C°: 1.1°, 1.5°

| Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|---|---|---|---|
| [signature] | FED EX | 4/8/14 | 1700 |
| FY | [signature] | 4/9/14 | 9:30 |
| Relinquished by: (Signature) | Received by: (Signature) | Date | Time |

05/2/06 Revision

MC29594: Chain of Custody
Page 1 of 2

# Accutest Laboratories Sample Receipt Summary

**Accutest Job Number:** MC29594 **Client:** URS **Immediate Client Services Action Required:** No

**Date / Time Received:** 4/9/2014 **Delivery Method:** **Client Service Action Required at Login:** No

**Project:** 900 SOUTH AVE **No. Coolers:** 1 **Airbill #'s:**

| 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. Cooler temp verification: | Infared gun | | |
| 3. Cooler media: | Ice (bag) | | |

| 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
www/accutest.com

5.1

5

MC29594: Chain of Custody
Page 2 of 2

# Internal Sample Tracking Chronicle

Shell Oil

Job No: MC29594

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL



| Sample Number | Method | Analyzed | By | Prepped | By | Test Codes |
|---|---|---|---|---|---|---|
| MC29594-1 Collected: 08-APR-14 10:00 By: DMMM Received: 09-APR-14 By: MW6D-ROX-040814 | | | | | | |
| MC29594-1 | SW846 8270D BY SIM | 10-APR-14 19:55 | MR | 09-APR-14 | AJ | B8270SIMSL |
| MC29594-1 | SW846 8270D | 11-APR-14 01:16 | KR | 09-APR-14 | AJ | AB8270SL+ |
| MC29594-1 | SW846 8260C | 11-APR-14 16:02 | AMY | | | V8260SL+ |
| MC29594-1 | SW846 8011 | 11-APR-14 22:06 | SZ | 10-APR-14 | AW | V8011SL |
| MC29594-2 Collected: 08-APR-14 11:05 By: DMMM Received: 09-APR-14 By: MW6C-ROX-040814 | | | | | | |
| MC29594-2 | SW846 8270D BY SIM | 10-APR-14 20:18 | MR | 09-APR-14 | AJ | B8270SIMSL |
| MC29594-2 | SW846 8270D | 11-APR-14 01:43 | KR | 09-APR-14 | AJ | AB8270SL+ |
| MC29594-2 | SW846 8260C | 11-APR-14 16:28 | AMY | | | V8260SL+ |
| MC29594-2 | SW846 8011 | 11-APR-14 22:32 | SZ | 10-APR-14 | AW | V8011SL |
| MC29594-3 Collected: 08-APR-14 12:20 By: DMMM Received: 09-APR-14 By: MW6B-ROX-040814 | | | | | | |
| MC29594-3 | SW846 8270D BY SIM | 10-APR-14 20:41 | MR | 09-APR-14 | AJ | B8270SIMSL |
| MC29594-3 | SW846 8270D | 11-APR-14 02:10 | KR | 09-APR-14 | AJ | AB8270SL+ |
| MC29594-3 | SW846 8260C | 11-APR-14 16:54 | AMY | | | V8260SL+ |
| MC29594-3 | SW846 8011 | 11-APR-14 22:57 | SZ | 10-APR-14 | AW | V8011SL |
| MC29594-4 Collected: 08-APR-14 12:45 By: DMMM Received: 09-APR-14 By: MW6A-ROX-040814-EB | | | | | | |
| MC29594-4 | SW846 8270D BY SIM | 10-APR-14 21:04 | MR | 09-APR-14 | AJ | B8270SIMSL |
| MC29594-4 | SW846 8270D | 11-APR-14 02:37 | KR | 09-APR-14 | AJ | AB8270SL+ |
| MC29594-4 | SW846 8260C | 11-APR-14 13:52 | AMY | | | V8260SL+ |
| MC29594-4 | SW846 8011 | 11-APR-14 23:24 | SZ | 10-APR-14 | AW | V8011SL |
| MC29594-5 Collected: 08-APR-14 13:25 By: DMMM Received: 09-APR-14 By: MW6A-ROX-040814 | | | | | | |
| MC29594-5 | SW846 8270D BY SIM | 10-APR-14 21:28 | MR | 09-APR-14 | AJ | B8270SIMSL |
| MC29594-5 | SW846 8260C | 11-APR-14 17:20 | AMY | | | V8260SL+ |
| MC29594-5 | SW846 8011 | 11-APR-14 23:49 | SZ | 10-APR-14 | AW | V8011SL |
| MC29594-5 | SW846 8270D | 15-APR-14 03:00 | WK | 11-APR-14 | AJ | AB8270SL+ |

# Internal Sample Tracking Chronicle

Shell Oil

Job No: MC29594

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample Number | Method | Analyzed | By | Prepped | By | Test Codes |
|---|---|---|---|---|---|---|
| MC29594-6 Collected: 08-APR-14 13:25 By: DMMM Received: 09-APR-14 By: MW6A-ROX-040814-DUP | | | | | | |
| MC29594-6 | SW846 8270D BY SIM | 10-APR-14 21:52 | MR | 09-APR-14 | AJ | B8270SIMSL |
| MC29594-6 | SW846 8260C | 11-APR-14 17:46 | AMY | | | V8260SL+ |
| MC29594-6 | SW846 8011 | 12-APR-14 00:14 | SZ | 10-APR-14 | AW | V8011SL |
| MC29594-6 | SW846 8270D | 15-APR-14 03:26 | WK | 11-APR-14 | AJ | AB8270SL+ |
| MC29594-7 Collected: 08-APR-14 15:10 By: DMMM Received: 09-APR-14 By: MW12-ROX-040814 | | | | | | |
| MC29594-7 | SW846 8270D BY SIM | 10-APR-14 22:15 | MR | 09-APR-14 | AJ | B8270SIMSL |
| MC29594-7 | SW846 8260C | 11-APR-14 18:11 | AMY | | | V8260SL+ |
| MC29594-7 | SW846 8011 | 12-APR-14 00:40 | SZ | 10-APR-14 | AW | V8011SL |
| MC29594-7 | SW846 8270D | 15-APR-14 03:52 | WK | 11-APR-14 | AJ | AB8270SL+ |
| MC29594-8 Collected: 08-APR-14 00:00 By: DMMM Received: 09-APR-14 By: TB-ROX-040814-HCL | | | | | | |
| MC29594-8 | SW846 8260C | 11-APR-14 12:33 | AMY | | | V8260SL+ |
| MC29594-9 Collected: 08-APR-14 00:00 By: DMMM Received: 09-APR-14 By: TB-ROX-040814-ST | | | | | | |
| MC29594-9 | SW846 8011 | 12-APR-14 01:07 | SZ | 10-APR-14 | AW | V8011SL |

# SGS Accutest Internal Chain of Custody



**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Received:** 04/09/14



| Sample.Bottle Number | Transfer FROM | Transfer TO | Date/Time | Reason |
|---|---|---|---|---|
| MC29594-1.1 | Walk In Ref #22 | Thomas Abruzzise | 04/09/14 14:51 | Retrieve from Storage |
| MC29594-1.1 | Thomas Abruzzise | | 04/30/14 21:28 | Depleted |
| MC29594-1.3 | VOC Ref #4 | Amy Min Yang | 04/11/14 11:26 | Retrieve from Storage |
| MC29594-1.3 | Amy Min Yang | GCMSV | 04/11/14 11:26 | Load on Instrument |
| MC29594-1.3 | GCMSV | Amy Min Yang | 04/14/14 12:55 | Unload from Instrument |
| MC29594-1.3 | Amy Min Yang | VOC Ref #4 | 04/14/14 12:55 | Return to Storage |
| MC29594-1.3 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29594-1.5 | VOC Ref #4 | Marc Tahtamoni | 04/10/14 14:38 | Retrieve from Storage |
| MC29594-1.5 | Marc Tahtamoni | | 04/10/14 20:16 | Depleted |
| MC29594-2.2 | Walk In Ref #22 | Thomas Abruzzise | 04/09/14 14:51 | Retrieve from Storage |
| MC29594-2.2 | Thomas Abruzzise | | 04/30/14 21:28 | Depleted |
| MC29594-2.3 | VOC Ref #4 | Amy Min Yang | 04/11/14 11:26 | Retrieve from Storage |
| MC29594-2.3 | Amy Min Yang | GCMSV | 04/11/14 11:26 | Load on Instrument |
| MC29594-2.3 | GCMSV | Amy Min Yang | 04/14/14 12:55 | Unload from Instrument |
| MC29594-2.3 | Amy Min Yang | VOC Ref #4 | 04/14/14 12:55 | Return to Storage |
| MC29594-2.3 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29594-2.6 | VOC Ref #4 | Marc Tahtamoni | 04/10/14 14:38 | Retrieve from Storage |
| MC29594-2.6 | Marc Tahtamoni | | 04/10/14 20:16 | Depleted |
| MC29594-3.1 | Walk In Ref #22 | Thomas Abruzzise | 04/09/14 14:51 | Retrieve from Storage |
| MC29594-3.1 | Thomas Abruzzise | | 04/30/14 21:28 | Depleted |
| MC29594-3.4 | VOC Ref #4 | Amy Min Yang | 04/11/14 11:26 | Retrieve from Storage |
| MC29594-3.4 | Amy Min Yang | GCMSV | 04/11/14 11:26 | Load on Instrument |
| MC29594-3.4 | GCMSV | Amy Min Yang | 04/14/14 12:55 | Unload from Instrument |
| MC29594-3.4 | Amy Min Yang | VOC Ref #4 | 04/14/14 12:55 | Return to Storage |
| MC29594-3.4 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29594-3.6 | VOC Ref #4 | Marc Tahtamoni | 04/10/14 14:38 | Retrieve from Storage |
| MC29594-3.6 | Marc Tahtamoni | | 04/10/14 20:16 | Depleted |
| MC29594-4.1 | Walk In Ref #22 | Thomas Abruzzise | 04/09/14 14:51 | Retrieve from Storage |
| MC29594-4.1 | Thomas Abruzzise | | 04/30/14 21:28 | Depleted |
| MC29594-4.4 | VOC Ref #4 | Amy Min Yang | 04/11/14 11:26 | Retrieve from Storage |
| MC29594-4.4 | Amy Min Yang | GCMSV | 04/11/14 11:26 | Load on Instrument |
| MC29594-4.4 | GCMSV | Amy Min Yang | 04/14/14 12:55 | Unload from Instrument |
| MC29594-4.4 | Amy Min Yang | VOC Ref #4 | 04/14/14 12:55 | Return to Storage |
| MC29594-4.4 | Scott Parsick | | 06/25/14 13:20 | Disposed |

# SGS Accutest Internal Chain of Custody

**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Received:** 04/09/14



| Sample.Bottle Number | Transfer FROM | Transfer TO | Date/Time | Reason |
|---|---|---|---|---|
| MC29594-4.6 | VOC Ref #4 | Marc Tahtamoni | 04/10/14 14:38 | Retrieve from Storage |
| MC29594-4.6 | Marc Tahtamoni | | 04/10/14 20:16 | Depleted |
| MC29594-5.1 | Walk In Ref #22 | Thomas Abruzzise | 04/09/14 14:51 | Retrieve from Storage |
| MC29594-5.1 | Thomas Abruzzise | | 04/30/14 21:28 | Depleted |
| MC29594-5.2 | Walk In Ref #22 | Michael DiBuono | 04/11/14 13:55 | Retrieve from Storage |
| MC29594-5.2 | Michael DiBuono | | 05/15/14 07:58 | Depleted |
| MC29594-5.4 | VOC Ref #4 | Amy Min Yang | 04/11/14 11:26 | Retrieve from Storage |
| MC29594-5.4 | Amy Min Yang | GCMSV | 04/11/14 11:26 | Load on Instrument |
| MC29594-5.4 | GCMSV | Amy Min Yang | 04/14/14 12:55 | Unload from Instrument |
| MC29594-5.4 | Amy Min Yang | VOC Ref #4 | 04/14/14 12:55 | Return to Storage |
| MC29594-5.4 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29594-5.6 | VOC Ref #4 | Marc Tahtamoni | 04/10/14 14:38 | Retrieve from Storage |
| MC29594-5.6 | Marc Tahtamoni | | 04/10/14 20:16 | Depleted |
| MC29594-6.1 | Walk In Ref #22 | Michael DiBuono | 04/11/14 13:55 | Retrieve from Storage |
| MC29594-6.1 | Michael DiBuono | | 05/15/14 07:58 | Depleted |
| MC29594-6.2 | Walk In Ref #22 | Thomas Abruzzise | 04/09/14 14:51 | Retrieve from Storage |
| MC29594-6.2 | Thomas Abruzzise | | 04/30/14 21:28 | Depleted |
| MC29594-6.3 | VOC Ref #4 | Amy Min Yang | 04/11/14 11:26 | Retrieve from Storage |
| MC29594-6.3 | Amy Min Yang | GCMSV | 04/11/14 11:26 | Load on Instrument |
| MC29594-6.3 | GCMSV | Amy Min Yang | 04/14/14 12:55 | Unload from Instrument |
| MC29594-6.3 | Amy Min Yang | VOC Ref #4 | 04/14/14 12:55 | Return to Storage |
| MC29594-6.3 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29594-6.5 | VOC Ref #4 | Marc Tahtamoni | 04/10/14 14:38 | Retrieve from Storage |
| MC29594-6.5 | Marc Tahtamoni | | 04/10/14 20:16 | Depleted |
| MC29594-7.1 | Walk In Ref #22 | Thomas Abruzzise | 04/09/14 14:51 | Retrieve from Storage |
| MC29594-7.1 | Thomas Abruzzise | | 04/30/14 21:28 | Depleted |
| MC29594-7.2 | Walk In Ref #22 | Michael DiBuono | 04/11/14 13:55 | Retrieve from Storage |
| MC29594-7.2 | Michael DiBuono | | 05/15/14 07:58 | Depleted |
| MC29594-7.3 | VOC Ref #4 | Amy Min Yang | 04/11/14 11:26 | Retrieve from Storage |
| MC29594-7.3 | Amy Min Yang | GCMSV | 04/11/14 11:26 | Load on Instrument |
| MC29594-7.3 | GCMSV | Amy Min Yang | 04/14/14 12:55 | Unload from Instrument |
| MC29594-7.3 | Amy Min Yang | VOC Ref #4 | 04/14/14 12:55 | Return to Storage |

# SGS Accutest Internal Chain of Custody

**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Received:** 04/09/14



| Sample.Bottle Number | Transfer FROM | Transfer TO | Date/Time | Reason |
|---|---|---|---|---|
| MC29594-7.3 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29594-7.6 | VOC Ref #4 | Marc Tahtamoni | 04/10/14 14:38 | Retrieve from Storage |
| MC29594-7.6 | Marc Tahtamoni | | 04/10/14 20:16 | Depleted |
| MC29594-8.1 | VOC Ref #4 | Amy Min Yang | 04/11/14 11:26 | Retrieve from Storage |
| MC29594-8.1 | Amy Min Yang | GCMSV | 04/11/14 11:26 | Load on Instrument |
| MC29594-8.1 | GCMSV | Amy Min Yang | 04/14/14 12:55 | Unload from Instrument |
| MC29594-8.1 | Amy Min Yang | VOC Ref #4 | 04/14/14 12:55 | Return to Storage |
| MC29594-8.1 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29594-9.2 | VOC Ref #4 | Marc Tahtamoni | 04/10/14 14:38 | Retrieve from Storage |
| MC29594-9.2 | Marc Tahtamoni | | 04/10/14 20:16 | Depleted |

## 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:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1111-MB | V29674.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29594-1, MC29594-2, MC29594-3, MC29594-4, MC29594-5, MC29594-6, MC29594-7, MC29594-8

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 2.4 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 2.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |

# Method Blank Summary

**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1111-MB | V29674.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29594-1, MC29594-2, MC29594-3, MC29594-4, MC29594-5, MC29594-6, MC29594-7, MC29594-8

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | ug/l | |

# Method Blank Summary

**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1111-MB | V29674.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29594-1, MC29594-2, MC29594-3, MC29594-4, MC29594-5, MC29594-6, MC29594-7, MC29594-8

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 86% | 70-130% |
| 2037-26-5 | Toluene-D8 | 87% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 91% | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

# Blank Spike Summary



**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1111-BS | V29671.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29594-1, MC29594-2, MC29594-3, MC29594-4, MC29594-5, MC29594-6, MC29594-7, MC29594-8

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 50 | 39.2 | 78 | 70-130 |
| 107-02-8 | Acrolein | 250 | 371 | 148* [a] | 70-130 |
| 107-13-1 | Acrylonitrile | 50 | 40.3 | 81 | 70-130 |
| 71-43-2 | Benzene | 50 | 48.3 | 97 | 70-130 |
| 108-86-1 | Bromobenzene | 50 | 54.7 | 109 | 70-130 |
| 74-97-5 | Bromochloromethane | 50 | 45.7 | 91 | 70-130 |
| 75-27-4 | Bromodichloromethane | 50 | 51.4 | 103 | 70-130 |
| 75-25-2 | Bromoform | 50 | 45.9 | 92 | 70-130 |
| 74-83-9 | Bromomethane | 50 | 48.4 | 97 | 70-130 |
| 78-93-3 | 2-Butanone (MEK) | 50 | 42.9 | 86 | 70-130 |
| 104-51-8 | n-Butylbenzene | 50 | 55.0 | 110 | 70-130 |
| 135-98-8 | sec-Butylbenzene | 50 | 55.0 | 110 | 70-130 |
| 98-06-6 | tert-Butylbenzene | 50 | 55.5 | 111 | 70-130 |
| 75-15-0 | Carbon disulfide | 50 | 43.4 | 87 | 70-130 |
| 56-23-5 | Carbon tetrachloride | 50 | 58.3 | 117 | 70-130 |
| 108-90-7 | Chlorobenzene | 50 | 50.7 | 101 | 70-130 |
| 75-00-3 | Chloroethane | 50 | 50.1 | 100 | 70-130 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 50 | 93.1 | 186* [a] | 70-130 |
| 67-66-3 | Chloroform | 50 | 46.8 | 94 | 70-130 |
| 74-87-3 | Chloromethane | 50 | 48.0 | 96 | 70-130 |
| 95-49-8 | o-Chlorotoluene | 50 | 52.0 | 104 | 70-130 |
| 106-43-4 | p-Chlorotoluene | 50 | 54.1 | 108 | 70-130 |
| 124-48-1 | Dibromochloromethane | 50 | 48.2 | 96 | 70-130 |
| 95-50-1 | 1,2-Dichlorobenzene | 50 | 49.6 | 99 | 70-130 |
| 541-73-1 | 1,3-Dichlorobenzene | 50 | 52.1 | 104 | 70-130 |
| 106-46-7 | 1,4-Dichlorobenzene | 50 | 52.3 | 105 | 70-130 |
| 75-71-8 | Dichlorodifluoromethane | 50 | 44.2 | 88 | 70-130 |
| 75-34-3 | 1,1-Dichloroethane | 50 | 47.0 | 94 | 70-130 |
| 107-06-2 | 1,2-Dichloroethane | 50 | 49.0 | 98 | 70-130 |
| 75-35-4 | 1,1-Dichloroethene | 50 | 50.0 | 100 | 70-130 |
| 156-59-2 | cis-1,2-Dichloroethene | 50 | 47.0 | 94 | 70-130 |
| 156-60-5 | trans-1,2-Dichloroethene | 50 | 46.4 | 93 | 70-130 |
| 78-87-5 | 1,2-Dichloropropane | 50 | 49.8 | 100 | 70-130 |
| 142-28-9 | 1,3-Dichloropropane | 50 | 49.0 | 98 | 70-130 |
| 594-20-7 | 2,2-Dichloropropane | 50 | 49.7 | 99 | 70-130 |
| 563-58-6 | 1,1-Dichloropropene | 50 | 51.8 | 104 | 70-130 |

* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1111-BS | V29671.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29594-1, MC29594-2, MC29594-3, MC29594-4, MC29594-5, MC29594-6, MC29594-7, MC29594-8

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | 50 | 45.1 | 90 | 70-130 |
| 10061-02-6 | trans-1,3-Dichloropropene | 50 | 57.3 | 115 | 70-130 |
| 123-91-1 | 1,4-Dioxane | 250 | 177 | 71 | 70-130 |
| 97-63-2 | Ethyl methacrylate | 50 | 44.0 | 88 | 77-137 |
| 100-41-4 | Ethylbenzene | 50 | 55.0 | 110 | 70-130 |
| 87-68-3 | Hexachlorobutadiene | 50 | 50.2 | 100 | 70-130 |
| 591-78-6 | 2-Hexanone | 50 | 43.8 | 88 | 70-130 |
| 98-82-8 | Isopropylbenzene | 50 | 55.0 | 110 | 70-130 |
| 99-87-6 | p-Isopropyltoluene | 50 | 56.2 | 112 | 70-130 |
| 1634-04-4 | Methyl Tert Butyl Ether | 50 | 44.5 | 89 | 70-130 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 50 | 44.3 | 89 | 70-130 |
| 74-95-3 | Methylene bromide | 50 | 48.9 | 98 | 70-130 |
| 75-09-2 | Methylene chloride | 50 | 45.0 | 90 | 70-130 |
| 91-20-3 | Naphthalene | 50 | 51.9 | 104 | 70-130 |
| 103-65-1 | n-Propylbenzene | 50 | 53.1 | 106 | 70-130 |
| 100-42-5 | Styrene | 50 | 55.3 | 111 | 70-130 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 50 | 57.5 | 115 | 70-130 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 50 | 50.9 | 102 | 70-130 |
| 127-18-4 | Tetrachloroethene | 50 | 54.4 | 109 | 70-130 |
| 108-88-3 | Toluene | 50 | 52.5 | 105 | 70-130 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 50 | 55.6 | 111 | 70-130 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 50 | 47.8 | 96 | 70-130 |
| 71-55-6 | 1,1,1-Trichloroethane | 50 | 51.9 | 104 | 70-130 |
| 79-00-5 | 1,1,2-Trichloroethane | 50 | 49.3 | 99 | 70-130 |
| 79-01-6 | Trichloroethene | 50 | 50.4 | 101 | 70-130 |
| 75-69-4 | Trichlorofluoromethane | 50 | 53.3 | 107 | 70-130 |
| 96-18-4 | 1,2,3-Trichloropropane | 50 | 50.3 | 101 | 70-130 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 50 | 54.6 | 109 | 70-130 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 50 | 55.7 | 111 | 70-130 |
| 108-05-4 | Vinyl Acetate | 50 | 42.8 | 86 | 70-130 |
| 75-01-4 | Vinyl chloride | 50 | 45.9 | 92 | 70-130 |
| | m,p-Xylene | 100 | 108 | 108 | 70-130 |
| 95-47-6 | o-Xylene | 50 | 53.4 | 107 | 70-130 |
| 1330-20-7 | Xylene (total) | 150 | 161 | 107 | 70-130 |

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1111-BS | V29671.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29594-1, MC29594-2, MC29594-3, MC29594-4, MC29594-5, MC29594-6, MC29594-7, MC29594-8

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 79% | 70-130% |
| 2037-26-5 | Toluene-D8 | 88% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 90% | 70-130% |

(a) Outside control limits. Associated samples are non-detect for this compound.

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29574-1MS | V29694.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |
| MC29574-1MSD | V29695.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |
| MC29574-1 | V29680.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29594-1, MC29594-2, MC29594-3, MC29594-4, MC29594-5, MC29594-6, MC29594-7, MC29594-8

| CAS No. | Compound | MC29574-1 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 | 36.6 | 73 | 50 | 28.3 | 57* [a] | 26 | 70-130/30 |
| 107-02-8 | Acrolein | ND | | 250 | 342 | 137* [b] | 250 | 338 | 135* [b] | 1 | 70-130/30 |
| 107-13-1 | Acrylonitrile | ND | | 50 | 40.4 | 81 | 50 | 41.8 | 84 | 3 | 70-130/30 |
| 71-43-2 | Benzene | 0.66 | | 50 | 48.6 | 96 | 50 | 47.1 | 93 | 3 | 70-130/30 |
| 108-86-1 | Bromobenzene | ND | | 50 | 53.4 | 107 | 50 | 53.3 | 107 | 0 | 70-130/30 |
| 74-97-5 | Bromochloromethane | ND | | 50 | 43.9 | 88 | 50 | 44.1 | 88 | 0 | 70-130/30 |
| 75-27-4 | Bromodichloromethane | ND | | 50 | 52.0 | 104 | 50 | 50.6 | 101 | 3 | 70-130/30 |
| 75-25-2 | Bromoform | ND | | 50 | 45.7 | 91 | 50 | 44.8 | 90 | 2 | 70-130/30 |
| 74-83-9 | Bromomethane | ND | | 50 | 50.4 | 101 | 50 | 46.4 | 93 | 8 | 70-130/30 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 50 | 36.5 | 73 | 50 | 36.1 | 72 | 1 | 70-130/30 |
| 104-51-8 | n-Butylbenzene | ND | | 50 | 54.3 | 109 | 50 | 51.9 | 104 | 5 | 70-130/30 |
| 135-98-8 | sec-Butylbenzene | ND | | 50 | 54.2 | 108 | 50 | 51.9 | 104 | 4 | 70-130/30 |
| 98-06-6 | tert-Butylbenzene | ND | | 50 | 55.5 | 111 | 50 | 52.2 | 104 | 6 | 70-130/30 |
| 75-15-0 | Carbon disulfide | ND | | 50 | 43.8 | 88 | 50 | 41.7 | 83 | 5 | 70-130/30 |
| 56-23-5 | Carbon tetrachloride | ND | | 50 | 63.1 | 126 | 50 | 59.3 | 119 | 6 | 70-130/30 |
| 108-90-7 | Chlorobenzene | ND | | 50 | 50.3 | 101 | 50 | 49.7 | 99 | 1 | 70-130/30 |
| 75-00-3 | Chloroethane | ND | | 50 | 51.4 | 103 | 50 | 49.8 | 100 | 3 | 70-130/30 |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | | 50 | ND | 0* [a] | 50 | ND | 0* [a] | nc | 70-130/30 |
| 67-66-3 | Chloroform | ND | | 50 | 47.3 | 95 | 50 | 45.9 | 92 | 3 | 70-130/30 |
| 74-87-3 | Chloromethane | ND | | 50 | 49.3 | 99 | 50 | 47.3 | 95 | 4 | 70-130/30 |
| 95-49-8 | o-Chlorotoluene | ND | | 50 | 52.1 | 104 | 50 | 50.4 | 101 | 3 | 70-130/30 |
| 106-43-4 | p-Chlorotoluene | ND | | 50 | 54.1 | 108 | 50 | 53.1 | 106 | 2 | 70-130/30 |
| 124-48-1 | Dibromochloromethane | ND | | 50 | 49.9 | 100 | 50 | 47.9 | 96 | 4 | 70-130/30 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 50 | 48.1 | 96 | 50 | 48.4 | 97 | 1 | 70-130/30 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 50 | 51.1 | 102 | 50 | 50.1 | 100 | 2 | 70-130/30 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 50 | 51.1 | 102 | 50 | 50.6 | 101 | 1 | 70-130/30 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 50 | 44.4 | 89 | 50 | 41.7 | 83 | 6 | 70-130/30 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 50 | 47.0 | 94 | 50 | 45.5 | 91 | 3 | 70-130/30 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 50 | 52.5 | 105 | 50 | 49.9 | 100 | 5 | 70-130/30 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 50 | 49.6 | 99 | 50 | 49.1 | 98 | 1 | 70-130/30 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 50 | 45.3 | 91 | 50 | 45.3 | 91 | 0 | 70-130/30 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 50 | 46.2 | 92 | 50 | 45.2 | 90 | 2 | 70-130/30 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 50 | 50.7 | 101 | 50 | 48.8 | 98 | 4 | 70-130/30 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 50 | 49.6 | 99 | 50 | 48.4 | 97 | 2 | 70-130/30 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 50 | 47.1 | 94 | 50 | 44.7 | 89 | 5 | 70-130/30 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 50 | 53.3 | 107 | 50 | 51.3 | 103 | 4 | 70-130/30 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29574-1MS | V29694.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |
| MC29574-1MSD | V29695.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |
| MC29574-1 | V29680.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29594-1, MC29594-2, MC29594-3, MC29594-4, MC29594-5, MC29594-6, MC29594-7, MC29594-8

| CAS No. | Compound | MC29574-1 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 | 43.0 | 86 | 50 | 42.5 | 85 | 1 | 70-130/30 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 50 | 57.9 | 116 | 50 | 58.0 | 116 | 0 | 70-130/30 |
| 123-91-1 | 1,4-Dioxane | ND | | 250 | 196 | 78 | 250 | 156 | 62* a | 23 | 70-130/30 |
| 97-63-2 | Ethyl methacrylate | ND | | 50 | 44.9 | 90 | 50 | 46.1 | 92 | 3 | 72-139/30 |
| 100-41-4 | Ethylbenzene | ND | | 50 | 55.6 | 111 | 50 | 53.6 | 107 | 4 | 70-130/30 |
| 87-68-3 | Hexachlorobutadiene | ND | | 50 | 45.6 | 91 | 50 | 47.9 | 96 | 5 | 70-130/30 |
| 591-78-6 | 2-Hexanone | ND | | 50 | 38.2 | 76 | 50 | 38.9 | 78 | 2 | 70-130/30 |
| 98-82-8 | Isopropylbenzene | ND | | 50 | 54.3 | 109 | 50 | 51.9 | 104 | 5 | 70-130/30 |
| 99-87-6 | p-Isopropyltoluene | ND | | 50 | 55.4 | 111 | 50 | 53.4 | 107 | 4 | 70-130/30 |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | | 50 | 46.1 | 92 | 50 | 45.7 | 91 | 1 | 70-130/30 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 50 | 44.5 | 89 | 50 | 43.2 | 86 | 3 | 70-130/30 |
| 74-95-3 | Methylene bromide | ND | | 50 | 51.4 | 103 | 50 | 48.4 | 97 | 6 | 70-130/30 |
| 75-09-2 | Methylene chloride | ND | | 50 | 43.6 | 87 | 50 | 43.1 | 86 | 1 | 70-130/30 |
| 91-20-3 | Naphthalene | ND | | 50 | 31.6 | 63* a | 50 | 47.3 | 95 | 40* c | 70-130/30 |
| 103-65-1 | n-Propylbenzene | ND | | 50 | 52.7 | 105 | 50 | 50.6 | 101 | 4 | 70-130/30 |
| 100-42-5 | Styrene | ND | | 50 | 54.4 | 109 | 50 | 53.2 | 106 | 2 | 70-130/30 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 50 | 58.1 | 116 | 50 | 54.6 | 109 | 6 | 70-130/30 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 50 | 50.7 | 101 | 50 | 50.0 | 100 | 1 | 70-130/30 |
| 127-18-4 | Tetrachloroethene | ND | | 50 | 55.5 | 111 | 50 | 52.6 | 105 | 5 | 70-130/30 |
| 108-88-3 | Toluene | ND | | 50 | 53.0 | 106 | 50 | 51.4 | 103 | 3 | 70-130/30 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 50 | 34.6 | 69* a | 50 | 48.3 | 97 | 33* c | 70-130/30 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 50 | 38.9 | 78 | 50 | 44.8 | 90 | 14 | 70-130/30 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 50 | 54.7 | 109 | 50 | 51.7 | 103 | 6 | 70-130/30 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 50 | 50.8 | 102 | 50 | 49.6 | 99 | 2 | 70-130/30 |
| 79-01-6 | Trichloroethene | ND | | 50 | 50.9 | 102 | 50 | 48.2 | 96 | 5 | 70-130/30 |
| 75-69-4 | Trichlorofluoromethane | ND | | 50 | 57.7 | 115 | 50 | 53.0 | 106 | 8 | 70-130/30 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 50 | 48.4 | 97 | 50 | 48.9 | 98 | 1 | 70-130/30 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 50 | 54.1 | 108 | 50 | 52.0 | 104 | 4 | 70-130/30 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 50 | 54.8 | 110 | 50 | 52.3 | 105 | 5 | 70-130/30 |
| 108-05-4 | Vinyl Acetate | ND | | 50 | 42.6 | 85 | 50 | 41.5 | 83 | 3 | 70-130/30 |
| 75-01-4 | Vinyl chloride | ND | | 50 | 48.1 | 96 | 50 | 45.4 | 91 | 6 | 70-130/30 |
| | m,p-Xylene | ND | | 100 | 108 | 108 | 100 | 105 | 105 | 3 | 70-130/30 |
| 95-47-6 | o-Xylene | ND | | 50 | 53.4 | 107 | 50 | 51.1 | 102 | 4 | 70-130/30 |
| 1330-20-7 | Xylene (total) | ND | | 150 | 161 | 107 | 150 | 156 | 104 | 3 | 70-130/30 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29574-1MS | V29694.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |
| MC29574-1MSD | V29695.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |
| MC29574-1 | V29680.D | 1 | 04/11/14 | AMY | n/a | n/a | MSV1111 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29594-1, MC29594-2, MC29594-3, MC29594-4, MC29594-5, MC29594-6, MC29594-7, MC29594-8

| CAS No. | Surrogate Recoveries | MS | MSD | MC29574-1 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 80% | 80% | 92% | 70-130% |
| 2037-26-5 | Toluene-D8 | 88% | 89% | 86% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 89% | 91% | 92% | 70-130% |

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(b) Outside control limits. Associated samples are non-detect for this compound.
(c) High RPD due to possible matrix interference and/or sample non-homogeneity.

* = Outside of Control Limits.

# Volatile Internal Standard Area Summary



**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSV1111-CC1058 | **Injection Date:** | 04/11/14 |
| **Lab File ID:** | V29670.D | **Injection Time:** | 09:56 |
| **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 | 300021 | 6.55 | 399854 | 7.73 | 184124 | 11.08 | 197689 | 13.29 | 34571 | 3.49 |
| Upper Limit [a] | 600042 | 7.05 | 799708 | 8.23 | 368248 | 11.58 | 395378 | 13.79 | 69142 | 3.99 |
| Lower Limit [b] | 150011 | 6.05 | 199927 | 7.23 | 92062 | 10.58 | 98845 | 12.79 | 17286 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| MSV1111-BS | 309777 | 6.55 | 409864 | 7.74 | 193009 | 11.08 | 202898 | 13.29 | 36807 | 3.50 |
| MSV1111-MB | 259007 | 6.56 | 356819 | 7.74 | 175741 | 11.08 | 167631 | 13.29 | 34778 | 3.50 |
| ZZZZZZ | 228816 | 6.55 | 320141 | 7.73 | 155764 | 11.08 | 152425 | 13.29 | 33547 | 3.49 |
| MC29594-8 | 246623 | 6.56 | 347160 | 7.74 | 171040 | 11.08 | 167501 | 13.29 | 36615 | 3.50 |
| ZZZZZZ | 235965 | 6.56 | 330943 | 7.74 | 165725 | 11.08 | 162150 | 13.29 | 36719 | 3.50 |
| ZZZZZZ | 232479 | 6.56 | 325158 | 7.74 | 153201 | 11.08 | 150067 | 13.29 | 44615 | 3.50 |
| MC29594-4 | 237139 | 6.56 | 329327 | 7.74 | 159884 | 11.08 | 151797 | 13.29 | 46031 | 3.50 |
| MC29574-1 | 222377 | 6.56 | 312757 | 7.74 | 159127 | 11.08 | 151929 | 13.29 | 32999 | 3.50 |
| ZZZZZZ | 225237 | 6.56 | 320484 | 7.74 | 160677 | 11.08 | 152348 | 13.29 | 29840 | 3.50 |
| ZZZZZZ | 250889 | 6.56 | 317151 | 7.74 | 162987 | 11.08 | 153418 | 13.29 | 36723 | 3.50 |
| ZZZZZZ | 220319 | 6.56 | 307295 | 7.74 | 155805 | 11.08 | 147405 | 13.29 | 34711 | 3.50 |
| MC29594-1 | 205928 | 6.55 | 297866 | 7.74 | 152523 | 11.08 | 146963 | 13.29 | 33219 | 3.50 |
| MC29594-2 | 207218 | 6.56 | 296503 | 7.74 | 153363 | 11.08 | 145784 | 13.29 | 31341 | 3.51 |
| MC29594-3 | 189423 | 6.55 | 268435 | 7.74 | 136770 | 11.08 | 132176 | 13.29 | 29099 | 3.49 |
| MC29594-5 | 213474 | 6.56 | 297714 | 7.74 | 154139 | 11.08 | 151347 | 13.29 | 33355 | 3.50 |
| MC29594-6 | 202228 | 6.55 | 282495 | 7.74 | 144311 | 11.08 | 141198 | 13.29 | 32268 | 3.50 |
| MC29594-7 | 196787 | 6.55 | 274854 | 7.74 | 142355 | 11.08 | 137215 | 13.29 | 28195 | 3.50 |
| ZZZZZZ | 234576 | 6.56 | 311674 | 7.74 | 158511 | 11.08 | 171009 | 13.29 | 37483 | 3.50 |
| ZZZZZZ | 248527 | 6.55 | 321977 | 7.73 | 169842 | 11.08 | 175444 | 13.29 | 38866 | 3.50 |
| MC29574-1MS | 266742 | 6.55 | 347382 | 7.73 | 166716 | 11.08 | 179177 | 13.29 | 36221 | 3.49 |
| MC29574-1MSD | 303138 | 6.55 | 396937 | 7.74 | 192339 | 11.08 | 205672 | 13.29 | 38387 | 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.

# Volatile Surrogate Recovery Summary



**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 |
|---|---|---|---|---|
| MC29594-1 | V29684.D | 95 | 89 | 90 |
| MC29594-2 | V29685.D | 94 | 89 | 94 |
| MC29594-3 | V29686.D | 96 | 89 | 93 |
| MC29594-4 | V29679.D | 89 | 84 | 91 |
| MC29594-5 | V29687.D | 92 | 89 | 91 |
| MC29594-6 | V29688.D | 91 | 88 | 92 |
| MC29594-7 | V29689.D | 94 | 90 | 92 |
| MC29594-8 | V29676.D | 91 | 86 | 92 |
| MC29574-1MS | V29694.D | 80 | 88 | 89 |
| MC29574-1MSD | V29695.D | 80 | 89 | 91 |
| MSV1111-BS | V29671.D | 79 | 88 | 90 |
| MSV1111-MB | V29674.D | 86 | 87 | 91 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = Dibromofluoromethane | 70-130% |
| S2 = Toluene-D8 | 70-130% |
| S3 = 4-Bromofluorobenzene | 70-130% |

## GC/MS Semi-volatiles

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# 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:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37530-MB | R38040.D | 1 | 04/10/14 | KR | 04/09/14 | OP37530 | MSR1403 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29594-1, MC29594-2, MC29594-3, MC29594-4

| 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 | 0.31 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 10 | 0.83 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 10 | 0.40 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 10 | 0.56 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 20 | 2.5 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 10 | 0.23 | ug/l | |
| | 3&4-Methylphenol | ND | 10 | 0.47 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 10 | 2.9 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 20 | 0.53 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 10 | 1.1 | ug/l | |
| 108-95-2 | Phenol | ND | 5.0 | 0.30 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 10 | 0.37 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 10 | 0.18 | ug/l | |
| 62-53-3 | Aniline | ND | 10 | 0.64 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.0 | 0.47 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.0 | 0.53 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 10 | 2.3 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.0 | 0.31 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 10 | 0.56 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.0 | 0.29 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.0 | 0.35 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.0 | 0.33 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.0 | 0.25 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.0 | 0.24 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 10 | 0.46 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 10 | 0.30 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.0 | 0.27 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.0 | 0.26 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.45 | 5.0 | 0.17 | ug/l | J |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.0 | 0.28 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.0 | 0.20 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.0 | 0.34 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.0 | 0.33 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.0 | 0.29 | ug/l | |

# Method Blank Summary

**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37530-MB | R38040.D | 1 | 04/10/14 | KR | 04/09/14 | OP37530 | MSR1403 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29594-1, MC29594-2, MC29594-3, MC29594-4

| 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 | 0.30 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.0 | 0.45 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 0.40 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 1.4 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 2.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.0 | 0.39 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.0 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.0 | 0.40 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.0 | 0.19 | ug/l | |
| 110-86-1 | Pyridine | ND | 10 | 0.52 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 45% | 15-110% |
| 4165-62-2 | Phenol-d5 | 31% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 70% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 72% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 70% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 87% | 30-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile | | 0 | ug/l | |

# Method Blank Summary



**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37571-MB | R38148.D | 1 | 04/14/14 | WK | 04/11/14 | OP37571 | MSR1407 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29594-5, MC29594-6, MC29594-7



| 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 | 0.31 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 10 | 0.83 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 10 | 0.40 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 10 | 0.56 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 20 | 2.5 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 10 | 0.23 | ug/l | |
| | 3&4-Methylphenol | ND | 10 | 0.47 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 10 | 2.9 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 20 | 0.53 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 10 | 1.1 | ug/l | |
| 108-95-2 | Phenol | ND | 5.0 | 0.30 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 10 | 0.37 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 10 | 0.18 | ug/l | |
| 62-53-3 | Aniline | ND | 10 | 0.64 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.0 | 0.47 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.0 | 0.53 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 10 | 2.3 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.0 | 0.31 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 10 | 0.56 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.0 | 0.29 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.0 | 0.35 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.0 | 0.33 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.0 | 0.25 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.0 | 0.24 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 10 | 0.46 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 10 | 0.30 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.0 | 0.27 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.0 | 0.26 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.67 | 5.0 | 0.17 | ug/l | J |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.0 | 0.28 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.0 | 0.20 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.0 | 0.34 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 6.2 | 2.0 | 0.33 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.0 | 0.29 | ug/l | |

# Method Blank Summary

**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37571-MB | R38148.D | 1 | 04/14/14 | WK | 04/11/14 | OP37571 | MSR1407 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29594-5, MC29594-6, MC29594-7

| 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 | 0.30 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.0 | 0.45 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 0.40 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 1.4 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 2.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.0 | 0.39 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.0 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.0 | 0.40 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.0 | 0.19 | ug/l | |
| 110-86-1 | Pyridine | ND | 10 | 0.52 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 42% | 15-110% |
| 4165-62-2 | Phenol-d5 | 27% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 67% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 69% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 67% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 96% | 30-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile | | 0 | ug/l | |

# Method Blank Summary



**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37531-MB | I88454.D | 1 | 04/10/14 | MR | 04/09/14 | OP37531 | MSI3294 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D BY SIM

MC29594-1, MC29594-2, MC29594-3, MC29594-4, MC29594-5, MC29594-6, MC29594-7



| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | ND | 0.10 | 0.069 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.10 | 0.050 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.10 | 0.092 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.050 | 0.020 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.10 | 0.029 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.050 | 0.032 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.10 | 0.027 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.10 | 0.039 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.10 | 0.024 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.10 | 0.032 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.10 | 0.041 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.10 | 0.099 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.10 | 0.031 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.20 | 0.050 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.20 | 0.074 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 0.050 | 0.013 | ug/l | |
| 129-00-0 | Pyrene | ND | 0.10 | 0.038 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 67% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 63% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 91% | 30-130% |

# Blank Spike Summary



**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37530-BS | R38041.D | 1 | 04/10/14 | KR | 04/09/14 | OP37530 | MSR1403 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29594-1, MC29594-2, MC29594-3, MC29594-4

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | 50 | 21.0 | 42 | 30-130 |
| 95-57-8 | 2-Chlorophenol | 50 | 38.9 | 78 | 30-130 |
| 59-50-7 | 4-Chloro-3-methyl phenol | 50 | 37.1 | 74 | 30-130 |
| 120-83-2 | 2,4-Dichlorophenol | 50 | 40.1 | 80 | 30-130 |
| 105-67-9 | 2,4-Dimethylphenol | 50 | 33.8 | 68 | 30-130 |
| 51-28-5 | 2,4-Dinitrophenol | 50 | 37.6 | 75 | 30-130 |
| 534-52-1 | 4,6-Dinitro-o-cresol | 50 | 45.6 | 91 | 30-130 |
| 95-48-7 | 2-Methylphenol | 50 | 39.0 | 78 | 30-130 |
| | 3&4-Methylphenol | 100 | 66.4 | 66 | 30-130 |
| 88-75-5 | 2-Nitrophenol | 50 | 39.2 | 78 | 30-130 |
| 100-02-7 | 4-Nitrophenol | 50 | 18.3 | 37 | 30-130 |
| 87-86-5 | Pentachlorophenol | 50 | 38.9 | 78 | 30-130 |
| 108-95-2 | Phenol | 50 | 20.2 | 40 | 30-130 |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | 52.9 | 106 | 30-130 |
| 88-06-2 | 2,4,6-Trichlorophenol | 50 | 53.7 | 107 | 30-130 |
| 62-53-3 | Aniline | 50 | 30.0 | 60 | 40-140 |
| 101-55-3 | 4-Bromophenyl phenyl ether | 50 | 42.6 | 85 | 40-140 |
| 85-68-7 | Butyl benzyl phthalate | 50 | 68.1 | 136 | 40-140 |
| 100-51-6 | Benzyl Alcohol | 50 | 36.1 | 72 | 40-140 |
| 91-58-7 | 2-Chloronaphthalene | 50 | 55.9 | 112 | 40-140 |
| 106-47-8 | 4-Chloroaniline | 50 | 34.5 | 69 | 40-140 |
| 111-91-1 | bis(2-Chloroethoxy)methane | 50 | 39.1 | 78 | 40-140 |
| 111-44-4 | bis(2-Chloroethyl)ether | 50 | 42.7 | 85 | 40-140 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 50 | 55.5 | 111 | 40-140 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 50 | 42.0 | 84 | 40-140 |
| 122-66-7 | 1,2-Diphenylhydrazine | 50 | 41.0 | 82 | 40-140 |
| 121-14-2 | 2,4-Dinitrotoluene | 50 | 45.9 | 92 | 40-140 |
| 606-20-2 | 2,6-Dinitrotoluene | 50 | 54.7 | 109 | 40-140 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 50 | 40.8 | 82 | 40-140 |
| 132-64-9 | Dibenzofuran | 50 | 40.4 | 81 | 40-140 |
| 84-74-2 | Di-n-butyl phthalate | 50 | 44.4 | 89 | 40-140 |
| 117-84-0 | Di-n-octyl phthalate | 50 | 49.7 | 99 | 40-140 |
| 84-66-2 | Diethyl phthalate | 50 | 43.3 | 87 | 40-140 |
| 131-11-3 | Dimethyl phthalate | 50 | 47.4 | 95 | 40-140 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 50 | 49.7 | 99 | 40-140 |
| 118-74-1 | Hexachlorobenzene | 50 | 42.1 | 84 | 40-140 |

* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37530-BS | R38041.D | 1 | 04/10/14 | KR | 04/09/14 | OP37530 | MSR1403 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29594-1, MC29594-2, MC29594-3, MC29594-4

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 77-47-4 | Hexachlorocyclopentadiene | 50 | 29.0 | 58 | 40-140 |
| 67-72-1 | Hexachloroethane | 50 | 26.0 | 52 | 40-140 |
| 78-59-1 | Isophorone | 50 | 38.7 | 77 | 40-140 |
| 88-74-4 | 2-Nitroaniline | 50 | 58.5 | 117 | 40-140 |
| 99-09-2 | 3-Nitroaniline | 50 | 40.3 | 81 | 40-140 |
| 100-01-6 | 4-Nitroaniline | 50 | 43.1 | 86 | 40-140 |
| 98-95-3 | Nitrobenzene | 50 | 38.4 | 77 | 40-140 |
| 62-75-9 | n-Nitrosodimethylamine | 50 | 28.8 | 58 | 40-140 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 50 | 41.9 | 84 | 40-140 |
| 86-30-6 | N-Nitrosodiphenylamine | 50 | 41.3 | 83 | 40-140 |
| 110-86-1 | Pyridine | 50 | 22.8 | 46 | 40-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 55% | 15-110% |
| 4165-62-2 | Phenol-d5 | 36% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 77% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 75% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 91% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 119% | 30-130% |

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37571-BS | R38149.D | 1 | 04/14/14 | WK | 04/11/14 | OP37571 | MSR1407 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29594-5, MC29594-6, MC29594-7

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | 50 | 14.9 | 30 | 30-130 |
| 95-57-8 | 2-Chlorophenol | 50 | 35.0 | 70 | 30-130 |
| 59-50-7 | 4-Chloro-3-methyl phenol | 50 | 36.2 | 72 | 30-130 |
| 120-83-2 | 2,4-Dichlorophenol | 50 | 38.4 | 77 | 30-130 |
| 105-67-9 | 2,4-Dimethylphenol | 50 | 30.8 | 62 | 30-130 |
| 51-28-5 | 2,4-Dinitrophenol | 50 | 33.8 | 68 | 30-130 |
| 534-52-1 | 4,6-Dinitro-o-cresol | 50 | 47.5 | 95 | 30-130 |
| 95-48-7 | 2-Methylphenol | 50 | 31.8 | 64 | 30-130 |
| | 3&4-Methylphenol | 100 | 57.8 | 58 | 30-130 |
| 88-75-5 | 2-Nitrophenol | 50 | 38.2 | 76 | 30-130 |
| 100-02-7 | 4-Nitrophenol | 50 | 7.0 | 14* [a] | 30-130 |
| 87-86-5 | Pentachlorophenol | 50 | 28.1 | 56 | 30-130 |
| 108-95-2 | Phenol | 50 | 17.3 | 35 | 30-130 |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | 40.3 | 81 | 30-130 |
| 88-06-2 | 2,4,6-Trichlorophenol | 50 | 34.7 | 69 | 30-130 |
| 62-53-3 | Aniline | 50 | 24.5 | 49 | 40-140 |
| 101-55-3 | 4-Bromophenyl phenyl ether | 50 | 45.6 | 91 | 40-140 |
| 85-68-7 | Butyl benzyl phthalate | 50 | 53.3 | 107 | 40-140 |
| 100-51-6 | Benzyl Alcohol | 50 | 15.4 | 31* [a] | 40-140 |
| 91-58-7 | 2-Chloronaphthalene | 50 | 41.8 | 84 | 40-140 |
| 106-47-8 | 4-Chloroaniline | 50 | 35.4 | 71 | 40-140 |
| 111-91-1 | bis(2-Chloroethoxy)methane | 50 | 38.6 | 77 | 40-140 |
| 111-44-4 | bis(2-Chloroethyl)ether | 50 | 38.9 | 78 | 40-140 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 50 | 46.7 | 93 | 40-140 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 50 | 44.3 | 89 | 40-140 |
| 122-66-7 | 1,2-Diphenylhydrazine | 50 | 44.6 | 89 | 40-140 |
| 121-14-2 | 2,4-Dinitrotoluene | 50 | 46.7 | 93 | 40-140 |
| 606-20-2 | 2,6-Dinitrotoluene | 50 | 45.6 | 91 | 40-140 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 50 | 41.7 | 83 | 40-140 |
| 132-64-9 | Dibenzofuran | 50 | 41.8 | 84 | 40-140 |
| 84-74-2 | Di-n-butyl phthalate | 50 | 47.3 | 95 | 40-140 |
| 117-84-0 | Di-n-octyl phthalate | 50 | 55.7 | 111 | 40-140 |
| 84-66-2 | Diethyl phthalate | 50 | 48.8 | 98 | 40-140 |
| 131-11-3 | Dimethyl phthalate | 50 | 46.8 | 94 | 40-140 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 50 | 53.7 | 107 | 40-140 |
| 118-74-1 | Hexachlorobenzene | 50 | 45.0 | 90 | 40-140 |

* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37571-BS | R38149.D | 1 | 04/14/14 | WK | 04/11/14 | OP37571 | MSR1407 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29594-5, MC29594-6, MC29594-7

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 77-47-4 | Hexachlorocyclopentadiene | 50 | 21.8 | 44 | 40-140 |
| 67-72-1 | Hexachloroethane | 50 | 23.0 | 46 | 40-140 |
| 78-59-1 | Isophorone | 50 | 38.1 | 76 | 40-140 |
| 88-74-4 | 2-Nitroaniline | 50 | 43.6 | 87 | 40-140 |
| 99-09-2 | 3-Nitroaniline | 50 | 41.7 | 83 | 40-140 |
| 100-01-6 | 4-Nitroaniline | 50 | 41.8 | 84 | 40-140 |
| 98-95-3 | Nitrobenzene | 50 | 36.5 | 73 | 40-140 |
| 62-75-9 | n-Nitrosodimethylamine | 50 | 23.1 | 46 | 40-140 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 50 | 40.8 | 82 | 40-140 |
| 86-30-6 | N-Nitrosodiphenylamine | 50 | 43.0 | 86 | 40-140 |
| 110-86-1 | Pyridine | 50 | 18.2 | 36* [a] | 40-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 40% | 15-110% |
| 4165-62-2 | Phenol-d5 | 28% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 67% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 70% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 65% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 94% | 30-130% |

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37531-BS | I88455.D | 1 | 04/10/14 | MR | 04/09/14 | OP37531 | MSI3294 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D BY SIM

MC29594-1, MC29594-2, MC29594-3, MC29594-4, MC29594-5, MC29594-6, MC29594-7

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 50 | 36.2 | 72 | 40-140 |
| 208-96-8 | Acenaphthylene | 50 | 34.0 | 68 | 40-140 |
| 120-12-7 | Anthracene | 50 | 36.4 | 73 | 40-140 |
| 56-55-3 | Benzo(a)anthracene | 50 | 41.2 | 82 | 40-140 |
| 50-32-8 | Benzo(a)pyrene | 50 | 38.9 | 78 | 40-140 |
| 205-99-2 | Benzo(b)fluoranthene | 50 | 41.5 | 83 | 40-140 |
| 191-24-2 | Benzo(g,h,i)perylene | 50 | 44.0 | 88 | 40-140 |
| 207-08-9 | Benzo(k)fluoranthene | 50 | 41.3 | 83 | 40-140 |
| 218-01-9 | Chrysene | 50 | 39.7 | 79 | 40-140 |
| 53-70-3 | Dibenzo(a,h)anthracene | 50 | 46.4 | 93 | 40-140 |
| 206-44-0 | Fluoranthene | 50 | 41.6 | 83 | 40-140 |
| 86-73-7 | Fluorene | 50 | 38.5 | 77 | 40-140 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 50 | 44.8 | 90 | 40-140 |
| 90-12-0 | 1-Methylnaphthalene | 50 | 33.2 | 66 | 40-140 |
| 91-57-6 | 2-Methylnaphthalene | 50 | 32.3 | 65 | 40-140 |
| 85-01-8 | Phenanthrene | 50 | 36.9 | 74 | 40-140 |
| 129-00-0 | Pyrene | 50 | 41.3 | 83 | 40-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 69% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 66% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 90% | 30-130% |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: MC29594
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37530-MS | R38042.D | 1 | 04/10/14 | KR | 04/09/14 | OP37530 | MSR1403 |
| OP37530-MSD | R38043.D | 1 | 04/10/14 | KR | 04/09/14 | OP37530 | MSR1403 |
| MC29300-14 | R38044.D | 1 | 04/11/14 | KR | 04/09/14 | OP37530 | MSR1403 |

The QC reported here applies to the following samples: Method: SW846 8270D

MC29594-1, MC29594-2, MC29594-3, MC29594-4

| CAS No. | Compound | MC29300-14 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 | 20.8 | 42 | 50 | 21.0 | 42 | 1 | 30-130/20 |
| 95-57-8 | 2-Chlorophenol | ND | | 50 | 33.9 | 68 | 50 | 38.7 | 77 | 13 | 30-130/20 |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | | 50 | 38.8 | 78 | 50 | 43.0 | 86 | 10 | 30-130/20 |
| 120-83-2 | 2,4-Dichlorophenol | ND | | 50 | 37.3 | 75 | 50 | 40.9 | 82 | 9 | 30-130/20 |
| 105-67-9 | 2,4-Dimethylphenol | ND | | 50 | 30.5 | 61 | 50 | 32.9 | 66 | 8 | 30-130/20 |
| 51-28-5 | 2,4-Dinitrophenol | ND | | 50 | 39.3 | 79 | 50 | 38.1 | 76 | 3 | 30-130/20 |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | | 50 | 45.8 | 92 | 50 | 64.7 | 129 | 34* [a] | 30-130/20 |
| 95-48-7 | 2-Methylphenol | ND | | 50 | 31.0 | 62 | 50 | 34.7 | 69 | 11 | 30-130/20 |
| | 3&4-Methylphenol | ND | | 100 | 59.1 | 59 | 100 | 63.9 | 64 | 8 | 30-130/20 |
| 88-75-5 | 2-Nitrophenol | ND | | 50 | 36.5 | 73 | 50 | 40.3 | 81 | 10 | 30-130/20 |
| 100-02-7 | 4-Nitrophenol | ND | | 50 | 19.5 | 39 | 50 | 18.1 | 36 | 7 | 30-130/20 |
| 87-86-5 | Pentachlorophenol | ND | | 50 | 39.9 | 80 | 50 | 40.4 | 81 | 1 | 30-130/20 |
| 108-95-2 | Phenol | ND | | 50 | 16.3 | 33 | 50 | 18.7 | 37 | 14 | 30-130/20 |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | | 50 | 40.6 | 81 | 50 | 40.8 | 82 | 0 | 30-130/20 |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | | 50 | 39.9 | 80 | 50 | 40.0 | 80 | 0 | 30-130/20 |
| 62-53-3 | Aniline | ND | | 50 | 25.1 | 50 | 50 | 28.6 | 57 | 13 | 40-140/20 |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | | 50 | 42.2 | 84 | 50 | 44.6 | 89 | 6 | 40-140/20 |
| 85-68-7 | Butyl benzyl phthalate | ND | | 50 | 51.0 | 102 | 50 | 64.9 | 130 | 24* [a] | 40-140/20 |
| 100-51-6 | Benzyl Alcohol | ND | | 50 | 29.0 | 58 | 50 | 30.3 | 61 | 4 | 40-140/20 |
| 91-58-7 | 2-Chloronaphthalene | ND | | 50 | 39.8 | 80 | 50 | 31.9 | 64 | 22* [a] | 40-140/20 |
| 106-47-8 | 4-Chloroaniline | ND | | 50 | 34.3 | 69 | 50 | 36.4 | 73 | 6 | 40-140/20 |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | | 50 | 37.9 | 76 | 50 | 41.3 | 83 | 9 | 40-140/20 |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | | 50 | 37.5 | 75 | 50 | 42.5 | 85 | 13 | 40-140/20 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | | 50 | 45.5 | 91 | 50 | 49.9 | 100 | 9 | 40-140/20 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | | 50 | 42.2 | 84 | 50 | 44.8 | 90 | 6 | 40-140/20 |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | | 50 | 42.3 | 85 | 50 | 58.2 | 116 | 32* [a] | 40-140/20 |
| 121-14-2 | 2,4-Dinitrotoluene | ND | | 50 | 46.0 | 92 | 50 | 45.0 | 90 | 2 | 40-140/20 |
| 606-20-2 | 2,6-Dinitrotoluene | ND | | 50 | 43.7 | 87 | 50 | 41.8 | 84 | 4 | 40-140/20 |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | | 50 | 44.7 | 89 | 50 | 46.2 | 92 | 3 | 40-140/20 |
| 132-64-9 | Dibenzofuran | ND | | 50 | 39.7 | 79 | 50 | 39.5 | 79 | 1 | 40-140/20 |
| 84-74-2 | Di-n-butyl phthalate | 0.40 | JB | 50 | 45.4 | 90 | 50 | 45.8 | 91 | 1 | 40-140/20 |
| 117-84-0 | Di-n-octyl phthalate | ND | | 50 | 51.7 | 103 | 50 | 52.5 | 105 | 2 | 40-140/20 |
| 84-66-2 | Diethyl phthalate | ND | | 50 | 43.6 | 87 | 50 | 39.0 | 78 | 11 | 40-140/20 |
| 131-11-3 | Dimethyl phthalate | ND | | 50 | 32.6 | 65 | 50 | 36.9 | 74 | 12 | 40-140/20 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | | 50 | 51.4 | 103 | 50 | 52.1 | 104 | 1 | 40-140/20 |
| 118-74-1 | Hexachlorobenzene | ND | | 50 | 42.0 | 84 | 50 | 43.5 | 87 | 4 | 40-140/20 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37530-MS | R38042.D | 1 | 04/10/14 | KR | 04/09/14 | OP37530 | MSR1403 |
| OP37530-MSD | R38043.D | 1 | 04/10/14 | KR | 04/09/14 | OP37530 | MSR1403 |
| MC29300-14 | R38044.D | 1 | 04/11/14 | KR | 04/09/14 | OP37530 | MSR1403 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29594-1, MC29594-2, MC29594-3, MC29594-4



| CAS No. | Compound | MC29300-14 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 | 20.5 | 41 | 50 | 21.4 | 43 | 4 | 40-140/20 |
| 67-72-1 | Hexachloroethane | ND | | 50 | 24.7 | 49 | 50 | 26.5 | 53 | 7 | 40-140/20 |
| 78-59-1 | Isophorone | ND | | 50 | 37.4 | 75 | 50 | 38.1 | 76 | 2 | 40-140/20 |
| 88-74-4 | 2-Nitroaniline | ND | | 50 | 43.5 | 87 | 50 | 34.0 | 68 | 25* [a] | 40-140/20 |
| 99-09-2 | 3-Nitroaniline | ND | | 50 | 40.6 | 81 | 50 | 40.9 | 82 | 1 | 40-140/20 |
| 100-01-6 | 4-Nitroaniline | ND | | 50 | 44.4 | 89 | 50 | 46.3 | 93 | 4 | 40-140/20 |
| 98-95-3 | Nitrobenzene | ND | | 50 | 36.0 | 72 | 50 | 40.9 | 82 | 13 | 40-140/20 |
| 62-75-9 | n-Nitrosodimethylamine | ND | | 50 | 23.4 | 47 | 50 | 27.4 | 55 | 16 | 40-140/20 |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | | 50 | 41.2 | 82 | 50 | 42.6 | 85 | 3 | 40-140/20 |
| 86-30-6 | N-Nitrosodiphenylamine | ND | | 50 | 40.8 | 82 | 50 | 56.5 | 113 | 32* [a] | 40-140/20 |
| 110-86-1 | Pyridine | ND | | 50 | 18.7 | 37* [b] | 50 | 22.0 | 44 | 16 | 40-140/20 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29300-14 | Limits |
|---|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 43% | 51% | 54% | 15-110% |
| 4165-62-2 | Phenol-d5 | 30% | 34% | 34% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 77% | 105% | 73% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 68% | 79% | 92% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 67% | 55% | 69% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 85% | 111% | 124% | 30-130% |

(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: MC29594
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37571-MS | R38150.D | 1 | 04/14/14 | WK | 04/11/14 | OP37571 | MSR1407 |
| OP37571-MSD | R38151.D | 1 | 04/14/14 | WK | 04/11/14 | OP37571 | MSR1407 |
| MC29300-23 | R38152.D | 1 | 04/14/14 | WK | 04/11/14 | OP37571 | MSR1407 |

The QC reported here applies to the following samples: Method: SW846 8270D

MC29594-5, MC29594-6, MC29594-7



| CAS No. | Compound | MC29300-23 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 | | 50.5 | 15.5 | 31 | 50.5 | 15.9 | 31 | 3 | 30-130/20 |
| 95-57-8 | 2-Chlorophenol | ND | | 50.5 | 33.3 | 66 | 50.5 | 33.1 | 66 | 1 | 30-130/20 |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | | 50.5 | 36.2 | 72 | 50.5 | 35.9 | 71 | 1 | 30-130/20 |
| 120-83-2 | 2,4-Dichlorophenol | ND | | 50.5 | 37.0 | 73 | 50.5 | 35.9 | 71 | 3 | 30-130/20 |
| 105-67-9 | 2,4-Dimethylphenol | ND | | 50.5 | 29.0 | 57 | 50.5 | 33.1 | 66 | 13 | 30-130/20 |
| 51-28-5 | 2,4-Dinitrophenol | ND | | 50.5 | 38.4 | 76 | 50.5 | 35.4 | 70 | 8 | 30-130/20 |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | | 50.5 | 48.6 | 96 | 50.5 | 45.7 | 90 | 6 | 30-130/20 |
| 95-48-7 | 2-Methylphenol | ND | | 50.5 | 29.6 | 59 | 50.5 | 30.0 | 59 | 1 | 30-130/20 |
| | 3&4-Methylphenol | ND | | 101 | 53.0 | 52 | 101 | 52.7 | 52 | 1 | 30-130/20 |
| 88-75-5 | 2-Nitrophenol | ND | | 50.5 | 36.4 | 72 | 50.5 | 35.7 | 71 | 2 | 30-130/20 |
| 100-02-7 | 4-Nitrophenol | ND | | 50.5 | 7.0 | 14* [a] | 50.5 | 7.9 | 16* [a] | 12 | 30-130/20 |
| 87-86-5 | Pentachlorophenol | ND | | 50.5 | 35.9 | 71 | 50.5 | 30.4 | 60 | 17 | 30-130/20 |
| 108-95-2 | Phenol | ND | | 50.5 | 11.6 | 23* [b] | 50.5 | 11.8 | 23* [b] | 2 | 30-130/20 |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | | 50.5 | 40.8 | 81 | 50.5 | 40.4 | 80 | 1 | 30-130/20 |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | | 50.5 | 33.1 | 66 | 50.5 | 32.7 | 65 | 1 | 30-130/20 |
| 62-53-3 | Aniline | ND | | 50.5 | 23.7 | 47 | 50.5 | 24.0 | 48 | 1 | 40-140/20 |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | | 50.5 | 43.7 | 87 | 50.5 | 43.0 | 85 | 2 | 40-140/20 |
| 85-68-7 | Butyl benzyl phthalate | ND | | 50.5 | 51.3 | 102 | 50.5 | 50.5 | 100 | 2 | 40-140/20 |
| 100-51-6 | Benzyl Alcohol | ND | | 50.5 | 15.1 | 30* [a] | 50.5 | 12.6 | 25* [a] | 18 | 40-140/20 |
| 91-58-7 | 2-Chloronaphthalene | ND | | 50.5 | 40.0 | 79 | 50.5 | 39.2 | 78 | 2 | 40-140/20 |
| 106-47-8 | 4-Chloroaniline | ND | | 50.5 | 33.9 | 67 | 50.5 | 33.5 | 66 | 1 | 40-140/20 |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | | 50.5 | 36.1 | 71 | 50.5 | 36.0 | 71 | 0 | 40-140/20 |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | | 50.5 | 36.2 | 72 | 50.5 | 36.5 | 72 | 1 | 40-140/20 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | | 50.5 | 44.5 | 88 | 50.5 | 44.3 | 88 | 0 | 40-140/20 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | | 50.5 | 41.1 | 81 | 50.5 | 41.1 | 81 | 0 | 40-140/20 |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | | 50.5 | 42.3 | 84 | 50.5 | 41.3 | 82 | 2 | 40-140/20 |
| 121-14-2 | 2,4-Dinitrotoluene | ND | | 50.5 | 43.8 | 87 | 50.5 | 43.5 | 86 | 1 | 40-140/20 |
| 606-20-2 | 2,6-Dinitrotoluene | ND | | 50.5 | 42.0 | 83 | 50.5 | 41.5 | 82 | 1 | 40-140/20 |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | | 50.5 | 34.3 | 68 | 50.5 | 33.9 | 67 | 1 | 40-140/20 |
| 132-64-9 | Dibenzofuran | ND | | 50.5 | 38.7 | 77 | 50.5 | 38.6 | 76 | 0 | 40-140/20 |
| 84-74-2 | Di-n-butyl phthalate | 0.41 | J | 50.5 | 45.2 | 89 | 50.5 | 44.2 | 87 | 2 | 40-140/20 |
| 117-84-0 | Di-n-octyl phthalate | ND | | 50.5 | 52.9 | 105 | 50.5 | 51.9 | 103 | 2 | 40-140/20 |
| 84-66-2 | Diethyl phthalate | ND | | 50.5 | 45.8 | 91 | 50.5 | 45.7 | 90 | 0 | 40-140/20 |
| 131-11-3 | Dimethyl phthalate | ND | | 50.5 | 43.7 | 87 | 50.5 | 43.5 | 86 | 0 | 40-140/20 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | | 50.5 | 51.8 | 103 | 50.5 | 50.4 | 100 | 3 | 40-140/20 |
| 118-74-1 | Hexachlorobenzene | ND | | 50.5 | 42.9 | 85 | 50.5 | 42.1 | 83 | 2 | 40-140/20 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37571-MS | R38150.D | 1 | 04/14/14 | WK | 04/11/14 | OP37571 | MSR1407 |
| OP37571-MSD | R38151.D | 1 | 04/14/14 | WK | 04/11/14 | OP37571 | MSR1407 |
| MC29300-23 | R38152.D | 1 | 04/14/14 | WK | 04/11/14 | OP37571 | MSR1407 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29594-5, MC29594-6, MC29594-7



| CAS No. | Compound | MC29300-23 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 | 23.4 | 46 | 50.5 | 22.3 | 44 | 5 | 40-140/20 |
| 67-72-1 | Hexachloroethane | ND | | 50.5 | 26.2 | 52 | 50.5 | 24.9 | 49 | 5 | 40-140/20 |
| 78-59-1 | Isophorone | ND | | 50.5 | 35.5 | 70 | 50.5 | 35.1 | 69 | 1 | 40-140/20 |
| 88-74-4 | 2-Nitroaniline | ND | | 50.5 | 40.9 | 81 | 50.5 | 40.2 | 80 | 2 | 40-140/20 |
| 99-09-2 | 3-Nitroaniline | ND | | 50.5 | 39.2 | 78 | 50.5 | 38.9 | 77 | 1 | 40-140/20 |
| 100-01-6 | 4-Nitroaniline | ND | | 50.5 | 38.8 | 77 | 50.5 | 38.7 | 77 | 0 | 40-140/20 |
| 98-95-3 | Nitrobenzene | ND | | 50.5 | 35.1 | 69 | 50.5 | 34.9 | 69 | 1 | 40-140/20 |
| 62-75-9 | n-Nitrosodimethylamine | ND | | 50.5 | 21.9 | 43 | 50.5 | 22.2 | 44 | 1 | 40-140/20 |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | | 50.5 | 37.7 | 75 | 50.5 | 37.5 | 74 | 1 | 40-140/20 |
| 86-30-6 | N-Nitrosodiphenylamine | ND | | 50.5 | 41.5 | 82 | 50.5 | 40.7 | 81 | 2 | 40-140/20 |
| 110-86-1 | Pyridine | ND | | 50.5 | 18.6 | 37* [a] | 50.5 | 18.4 | 36* [a] | 1 | 40-140/20 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29300-23 | Limits |
|---|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 35% | 37% | 0%* [c] | 15-110% |
| 4165-62-2 | Phenol-d5 | 24% | 25% | 0%* [c] | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 59% | 65% | 0%* [c] | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 66% | 65% | 74% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 67% | 65% | 66% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 89% | 87% | 77% | 30-130% |

(a) Outside control limits. Blank Spike meets program technical requirements.
(b) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(c) Surrogate standard not added.

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37531-MS | I88456.D | 1 | 04/10/14 | MR | 04/09/14 | OP37531 | MSI3294 |
| OP37531-MSD | I88457.D | 1 | 04/10/14 | MR | 04/09/14 | OP37531 | MSI3294 |
| MC29300-15 | I88458.D | 1 | 04/10/14 | MR | 04/09/14 | OP37531 | MSI3294 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D BY SIM

MC29594-1, MC29594-2, MC29594-3, MC29594-4, MC29594-5, MC29594-6, MC29594-7



| CAS No. | Compound | MC29300-15 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 | 36.2 | 72 | 50 | 37.3 | 75 | 3 | 40-140/20 |
| 208-96-8 | Acenaphthylene | ND | | 50 | 33.6 | 67 | 50 | 35.1 | 70 | 4 | 40-140/20 |
| 120-12-7 | Anthracene | ND | | 50 | 37.4 | 75 | 50 | 38.2 | 76 | 2 | 40-140/20 |
| 56-55-3 | Benzo(a)anthracene | ND | | 50 | 42.0 | 84 | 50 | 43.0 | 86 | 2 | 40-140/20 |
| 50-32-8 | Benzo(a)pyrene | ND | | 50 | 39.5 | 79 | 50 | 40.6 | 81 | 3 | 40-140/20 |
| 205-99-2 | Benzo(b)fluoranthene | ND | | 50 | 41.8 | 84 | 50 | 42.4 | 85 | 1 | 40-140/20 |
| 191-24-2 | Benzo(g,h,i)perylene | ND | | 50 | 44.6 | 89 | 50 | 46.1 | 92 | 3 | 40-140/20 |
| 207-08-9 | Benzo(k)fluoranthene | ND | | 50 | 42.7 | 85 | 50 | 44.7 | 89 | 5 | 40-140/20 |
| 218-01-9 | Chrysene | ND | | 50 | 40.3 | 81 | 50 | 41.1 | 82 | 2 | 40-140/20 |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | | 50 | 47.6 | 95 | 50 | 49.0 | 98 | 3 | 40-140/20 |
| 206-44-0 | Fluoranthene | ND | | 50 | 41.4 | 83 | 50 | 42.6 | 85 | 3 | 40-140/20 |
| 86-73-7 | Fluorene | ND | | 50 | 38.1 | 76 | 50 | 40.1 | 80 | 5 | 40-140/20 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | | 50 | 45.9 | 92 | 50 | 47.3 | 95 | 3 | 40-140/20 |
| 90-12-0 | 1-Methylnaphthalene | ND | | 50 | 32.0 | 64 | 50 | 34.9 | 70 | 9 | 40-140/20 |
| 91-57-6 | 2-Methylnaphthalene | ND | | 50 | 31.2 | 62 | 50 | 34.1 | 68 | 9 | 40-140/20 |
| 85-01-8 | Phenanthrene | 0.021 | J | 50 | 37.5 | 75 | 50 | 38.6 | 77 | 3 | 40-140/20 |
| 129-00-0 | Pyrene | ND | | 50 | 41.5 | 83 | 50 | 42.1 | 84 | 1 | 40-140/20 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29300-15 | Limits |
|---|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 64% | 71% | 68% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 64% | 68% | 64% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 89% | 94% | 96% | 30-130% |

* = Outside of Control Limits.

# Semivolatile Internal Standard Area Summary



**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSI3294-CC3238 | **Injection Date:** | 04/10/14 |
| **Lab File ID:** | I88453.D | **Injection Time:** | 13:39 |
| **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 | 389888 | 4.03 | 902594 | 5.08 | 522602 | 6.61 | 877037 | 7.99 | 619107 | 10.76 | 1493935 | 12.24 |
| Upper Limit [a] | 779776 | 4.53 | 1805188 | 5.58 | 1045204 | 7.11 | 1754074 | 8.49 | 1238214 | 11.26 | 2987870 | 12.74 |
| Lower Limit [b] | 194944 | 3.53 | 451297 | 4.58 | 261301 | 6.11 | 438519 | 7.49 | 309554 | 10.26 | 746968 | 11.74 |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OP37531-MB | 355866 | 4.03 | 822861 | 5.08 | 466037 | 6.61 | 752147 | 7.98 | 528118 | 10.76 | 1265181 | 12.24 |
| OP37531-BS | 380319 | 4.04 | 871292 | 5.08 | 488207 | 6.61 | 780792 | 7.99 | 536366 | 10.77 | 1250546 | 12.24 |
| OP37531-MS | 370971 | 4.03 | 851262 | 5.08 | 480270 | 6.61 | 766284 | 7.99 | 541999 | 10.76 | 1278807 | 12.24 |
| OP37531-MSD | 352565 | 4.03 | 806541 | 5.08 | 460760 | 6.61 | 731676 | 7.99 | 524157 | 10.77 | 1234466 | 12.24 |
| MC29300-15 | 323489 | 4.03 | 750991 | 5.08 | 424475 | 6.61 | 697162 | 7.98 | 476547 | 10.76 | 1146098 | 12.24 |
| ZZZZZZ | 378546 | 4.03 | 883365 | 5.08 | 494729 | 6.61 | 807251 | 7.98 | 559650 | 10.76 | 1318697 | 12.24 |
| OP37434-MB | 344271 | 4.03 | 806599 | 5.08 | 464044 | 6.61 | 758394 | 7.98 | 529548 | 10.76 | 1254539 | 12.24 |
| OP37434-BS | 350906 | 4.03 | 820709 | 5.08 | 459938 | 6.61 | 729790 | 7.99 | 522171 | 10.77 | 1204525 | 12.24 |
| ZZZZZZ | 351327 | 4.03 | 805248 | 5.08 | 466728 | 6.61 | 737270 | 7.98 | 526062 | 10.76 | 1257646 | 12.24 |
| ZZZZZZ | 367202 | 4.03 | 830144 | 5.08 | 471069 | 6.61 | 741121 | 7.98 | 525422 | 10.76 | 1224893 | 12.24 |
| ZZZZZZ | 334846 | 4.03 | 768698 | 5.08 | 438452 | 6.61 | 723545 | 7.99 | 503848 | 10.76 | 1206043 | 12.24 |
| ZZZZZZ | 353194 | 4.03 | 818812 | 5.08 | 463361 | 6.61 | 754332 | 7.98 | 521480 | 10.76 | 1244615 | 12.24 |
| ZZZZZZ | 340670 | 4.03 | 793766 | 5.08 | 451053 | 6.61 | 727258 | 7.98 | 511263 | 10.76 | 1223936 | 12.24 |
| ZZZZZZ | 349560 | 4.03 | 789206 | 5.08 | 457626 | 6.61 | 729911 | 7.99 | 511402 | 10.76 | 1230972 | 12.24 |
| ZZZZZZ | 338578 | 4.03 | 764410 | 5.08 | 433702 | 6.61 | 705273 | 7.98 | 492672 | 10.76 | 1198239 | 12.24 |
| MC29594-1 | 375395 | 4.03 | 851741 | 5.08 | 486943 | 6.61 | 774765 | 7.98 | 542224 | 10.76 | 1297027 | 12.24 |
| MC29594-2 | 342640 | 4.03 | 772876 | 5.08 | 439007 | 6.61 | 699158 | 7.99 | 492335 | 10.76 | 1186248 | 12.24 |
| MC29594-3 | 333849 | 4.03 | 781991 | 5.08 | 444397 | 6.61 | 723853 | 7.99 | 503727 | 10.76 | 1198106 | 12.24 |
| MC29594-4 | 357394 | 4.03 | 816366 | 5.08 | 470236 | 6.61 | 755881 | 7.99 | 530600 | 10.76 | 1251963 | 12.24 |
| MC29594-5 | 355345 | 4.03 | 817367 | 5.08 | 462981 | 6.61 | 760325 | 7.99 | 541672 | 10.77 | 1251053 | 12.25 |
| MC29594-6 | 346842 | 4.03 | 759347 | 5.08 | 441998 | 6.61 | 721161 | 7.99 | 518784 | 10.77 | 1198421 | 12.25 |
| MC29594-7 | 351414 | 4.03 | 811856 | 5.08 | 457211 | 6.61 | 735849 | 7.99 | 517277 | 10.76 | 1229828 | 12.24 |
| ZZZZZZ | 343958 | 4.03 | 790963 | 5.08 | 448110 | 6.61 | 723945 | 7.99 | 511952 | 10.76 | 1214216 | 12.24 |

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:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSR1403-CC1399 | **Injection Date:** | 04/10/14 |
| **Lab File ID:** | R38036.D | **Injection Time:** | 20:48 |
| **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 | 181022 | 5.42 | 538184 | 6.52 | 314711 | 8.05 | 538332 | 9.36 | 584266 | 11.97 | 563706 | 13.68 |
| Upper Limit [a] | 362044 | 5.92 | 1076368 | 7.02 | 629422 | 8.55 | 1076664 | 9.86 | 1168532 | 12.47 | 1127412 | 14.18 |
| Lower Limit [b] | 90511 | 4.92 | 269092 | 6.02 | 157356 | 7.55 | 269166 | 8.86 | 292133 | 11.47 | 281853 | 13.18 |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OP37522-MB | 175785 | 5.41 | 669025 | 6.51 | 407493 | 8.05 | 696010 | 9.36 | 724201 | 11.96 | 518131 | 13.67 |
| OP37522-BS | 124430 | 5.42 | 461986 | 6.52 | 345899 | 8.05 | 475549 | 9.36 | 518221 | 11.97 | 510523 | 13.68 |
| OP37530-MB | 191692 | 5.41 | 709572 | 6.51 | 396296 | 8.05 | 540988 | 9.36 | 585449 | 11.96 | 575922 | 13.67 |
| OP37530-BS | 173531 | 5.42 | 579052 | 6.51 | 336251 | 8.05 | 589176 | 9.36 | 644727 | 11.97 | 631951 | 13.68 |
| OP37530-MS | 215939 | 5.42 | 821645 | 6.51 | 497389 | 8.05 | 879454 | 9.36 | 942735 | 11.97 | 914518 | 13.68 |
| OP37530-MSD | 205279 | 5.42 | 709932 | 6.52 | 449623 | 8.05 | 593734 | 9.36 | 634730 | 11.97 | 623020 | 13.68 |
| MC29300-14 | 158727 | 5.41 | 492107 | 6.51 | 415432 | 8.05 | 526137 | 9.36 | 569139 | 11.96 | 710645 | 13.67 |
| ZZZZZZ | 223962 | 5.41 | 828558 | 6.51 | 508870 | 8.05 | 805587 | 9.36 | 694589 | 11.96 | 680795 | 13.67 |
| MC29594-1 | 207876 | 5.42 | 789337 | 6.51 | 446652 | 8.05 | 720998 | 9.36 | 610704 | 11.96 | 634364 | 13.67 |
| MC29594-2 | 208342 | 5.41 | 778176 | 6.51 | 471989 | 8.05 | 811102 | 9.36 | 870972 | 11.96 | 847924 | 13.67 |
| MC29594-3 | 210411 | 5.41 | 788081 | 6.51 | 477968 | 8.05 | 846027 | 9.36 | 889691 | 11.96 | 871463 | 13.67 |
| MC29594-4 | 213828 | 5.41 | 803958 | 6.51 | 482612 | 8.05 | 838364 | 9.36 | 762589 | 11.96 | 628799 | 13.67 |
| OP37522-MS | 195478 | 5.42 | 736654 | 6.51 | 449761 | 8.05 | 791329 | 9.36 | 806989 | 11.97 | 653126 | 13.68 |
| OP37522-MSD | 171889 | 5.42 | 651974 | 6.51 | 396450 | 8.05 | 569675 | 9.36 | 594434 | 11.97 | 722814 | 13.68 |
| MC29574-1 | 212316 | 5.41 | 792918 | 6.51 | 480567 | 8.05 | 839326 | 9.36 | 866339 | 11.96 | 635069 | 13.67 |
| ZZZZZZ | 194096 | 5.41 | 722979 | 6.51 | 441362 | 8.05 | 764080 | 9.36 | 814864 | 11.96 | 802020 | 13.67 |
| ZZZZZZ | 210139 | 5.42 | 790035 | 6.51 | 380738 | 8.05 | 786037 | 9.36 | 740562 | 11.96 | 911104 | 13.67 |

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:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSR1407-CC1399 | **Injection Date:** | 04/14/14 |
| **Lab File ID:** | R38137.D | **Injection Time:** | 16:43 |
| **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 | 161828 | 5.27 | 609042 | 6.37 | 368586 | 7.90 | 628020 | 9.21 | 652692 | 11.77 | 626035 | 13.46 |
| Upper Limit [a] | 323656 | 5.77 | 1218084 | 6.87 | 737172 | 8.40 | 1256040 | 9.71 | 1305384 | 12.27 | 1252070 | 13.96 |
| Lower Limit [b] | 80914 | 4.77 | 304521 | 5.87 | 184293 | 7.40 | 314010 | 8.71 | 326346 | 11.27 | 313018 | 12.96 |

| 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 | 201983 | 5.27 | 763542 | 6.37 | 458775 | 7.90 | 767707 | 9.20 | 772056 | 11.77 | 760302 | 13.46 |
| ZZZZZZ | 212365 | 5.27 | 795752 | 6.37 | 469421 | 7.90 | 782950 | 9.20 | 790622 | 11.77 | 751394 | 13.46 |
| ZZZZZZ | 204574 | 5.27 | 769017 | 6.37 | 458326 | 7.90 | 770332 | 9.20 | 772021 | 11.77 | 750762 | 13.46 |
| ZZZZZZ | 218347 | 5.27 | 811613 | 6.37 | 485963 | 7.90 | 809198 | 9.20 | 810553 | 11.77 | 757911 | 13.46 |
| ZZZZZZ | 203720 | 5.27 | 761402 | 6.37 | 456269 | 7.90 | 765046 | 9.20 | 757961 | 11.77 | 726223 | 13.46 |
| ZZZZZZ | 203697 | 5.27 | 750754 | 6.37 | 441736 | 7.90 | 733953 | 9.20 | 746844 | 11.77 | 721953 | 13.46 |
| ZZZZZZ | 218224 | 5.27 | 813235 | 6.37 | 484831 | 7.90 | 799026 | 9.20 | 793885 | 11.77 | 743438 | 13.46 |
| ZZZZZZ | 214867 | 5.27 | 801486 | 6.37 | 478054 | 7.90 | 796157 | 9.20 | 786009 | 11.77 | 751393 | 13.46 |
| ZZZZZZ | 231676 | 5.27 | 857040 | 6.37 | 512503 | 7.90 | 847888 | 9.20 | 859384 | 11.77 | 814280 | 13.46 |
| ZZZZZZ | 205626 | 5.27 | 773510 | 6.37 | 463708 | 7.90 | 766380 | 9.20 | 770364 | 11.77 | 726695 | 13.46 |
| OP37571-MB | 158479 | 5.27 | 598384 | 6.37 | 351537 | 7.90 | 591475 | 9.20 | 590885 | 11.77 | 562616 | 13.46 |
| OP37571-BS | 158815 | 5.27 | 595261 | 6.37 | 348113 | 7.90 | 594331 | 9.20 | 602116 | 11.77 | 569022 | 13.46 |
| OP37571-MS | 179326 | 5.27 | 668072 | 6.37 | 392819 | 7.90 | 656299 | 9.21 | 676297 | 11.77 | 648382 | 13.46 |
| OP37571-MSD | 169313 | 5.27 | 628741 | 6.37 | 367863 | 7.90 | 621569 | 9.21 | 633539 | 11.77 | 612155 | 13.46 |
| MC29300-23 | 167568 | 5.27 | 627660 | 6.37 | 378429 | 7.90 | 641807 | 9.20 | 654045 | 11.77 | 630028 | 13.46 |
| ZZZZZZ | 170073 | 5.27 | 639217 | 6.37 | 383268 | 7.90 | 635715 | 9.20 | 646310 | 11.76 | 625805 | 13.45 |
| ZZZZZZ | 167682 | 5.27 | 622298 | 6.37 | 369395 | 7.90 | 629945 | 9.20 | 651135 | 11.77 | 645804 | 13.47 |
| ZZZZZZ | 166133 | 5.27 | 619179 | 6.37 | 374228 | 7.90 | 639962 | 9.21 | 675287 | 11.78 | 666214 | 13.47 |
| ZZZZZZ | 165883 | 5.27 | 613450 | 6.37 | 373495 | 7.90 | 629592 | 9.20 | 679302 | 11.77 | 657594 | 13.46 |
| ZZZZZZ | 163552 | 5.27 | 602467 | 6.37 | 365223 | 7.90 | 608303 | 9.20 | 633415 | 11.77 | 617339 | 13.45 |
| ZZZZZZ | 158926 | 5.27 | 585581 | 6.37 | 349215 | 7.90 | 589635 | 9.20 | 607964 | 11.77 | 588776 | 13.46 |
| MC29594-5 | 168375 | 5.27 | 615770 | 6.37 | 376427 | 7.90 | 639549 | 9.20 | 658881 | 11.77 | 641513 | 13.46 |
| MC29594-6 | 166572 | 5.27 | 615384 | 6.37 | 376264 | 7.90 | 640238 | 9.20 | 654347 | 11.77 | 648643 | 13.47 |
| MC29594-7 | 152043 | 5.27 | 559572 | 6.37 | 340727 | 7.90 | 582371 | 9.20 | 607038 | 11.77 | 598203 | 13.46 |

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:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 |
|---|---|---|---|---|---|---|---|
| MC29594-1 | R38046.D | 29 | 20 | 66 | 71 | 72 | 84 |
| MC29594-2 | R38047.D | 31 | 22 | 67 | 72 | 69 | 85 |
| MC29594-3 | R38048.D | 26 | 18 | 59 | 60 | 58 | 75 |
| MC29594-4 | R38049.D | 32 | 22 | 53 | 54 | 49 | 78 |
| MC29594-5 | R38161.D | 42 | 28 | 81 | 74 | 76 | 94 |
| MC29594-6 | R38162.D | 44 | 29 | 83 | 74 | 76 | 95 |
| MC29594-7 | R38163.D | 45 | 29 | 80 | 79 | 77 | 98 |
| OP37530-BS | R38041.D | 55 | 36 | 77 | 75 | 91 | 119 |
| OP37530-MB | R38040.D | 45 | 31 | 70 | 72 | 70 | 87 |
| OP37530-MS | R38042.D | 43 | 30 | 77 | 68 | 67 | 85 |
| OP37530-MSD | R38043.D | 51 | 34 | 105 | 79 | 55 | 111 |
| OP37571-BS | R38149.D | 40 | 28 | 67 | 70 | 65 | 94 |
| OP37571-MB | R38148.D | 42 | 27 | 67 | 69 | 67 | 96 |
| OP37571-MS | R38150.D | 35 | 24 | 59 | 66 | 67 | 89 |
| OP37571-MSD | R38151.D | 37 | 25 | 65 | 65 | 65 | 87 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = 2-Fluorophenol | 15-110% |
| S2 = Phenol-d5 | 15-110% |
| S3 = 2,4,6-Tribromophenol | 15-110% |
| S4 = Nitrobenzene-d5 | 30-130% |
| S5 = 2-Fluorobiphenyl | 30-130% |
| S6 = Terphenyl-d14 | 30-130% |

# Semivolatile Surrogate Recovery Summary



**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 |
|---|---|---|---|---|
| MC29594-1 | I88469.D | 66 | 65 | 89 |
| MC29594-2 | I88470.D | 68 | 67 | 90 |
| MC29594-3 | I88471.D | 56 | 56 | 79 |
| MC29594-4 | I88472.D | 50 | 45 | 72 |
| MC29594-5 | I88473.D | 66 | 67 | 89 |
| MC29594-6 | I88474.D | 69 | 67 | 87 |
| MC29594-7 | I88475.D | 60 | 59 | 90 |
| OP37531-BS | I88455.D | 69 | 66 | 90 |
| OP37531-MB | I88454.D | 67 | 63 | 91 |
| OP37531-MS | I88456.D | 64 | 64 | 89 |
| OP37531-MSD | I88457.D | 71 | 68 | 94 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = Nitrobenzene-d5 | 30-130% |
| S2 = 2-Fluorobiphenyl | 30-130% |
| S3 = Terphenyl-d14 | 30-130% |

## 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:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37559-MB | YZ89183.D | 1 | 04/11/14 | SZ | 04/10/14 | OP37559 | GYZ7539 |

**The QC reported here applies to the following samples:** **Method:** SW846 8011

MC29594-1, MC29594-2, MC29594-3, MC29594-4, MC29594-5, MC29594-6, MC29594-7, MC29594-9

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.015 | 0.0054 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.015 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 74% | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 75% | 36-173% |

# Blank Spike Summary



**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37559-BS | YZ89184.D | 1 | 04/11/14 | SZ | 04/10/14 | OP37559 | GYZ7539 |

**The QC reported here applies to the following samples:** **Method:** SW846 8011

MC29594-1, MC29594-2, MC29594-3, MC29594-4, MC29594-5, MC29594-6, MC29594-7, MC29594-9

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 0.071 | 0.056 | 79 | 60-140 |
| 106-93-4 | 1,2-Dibromoethane | 0.071 | 0.057 | 80 | 60-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 71% | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 83% | 36-173% |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37559-MS | YZ89185.D | 1 | 04/11/14 | SZ | 04/10/14 | OP37559 | GYZ7539 |
| OP37559-MSD | YZ89186.D | 1 | 04/11/14 | SZ | 04/10/14 | OP37559 | GYZ7539 |
| MC29574-1 | YZ89187.D | 1 | 04/11/14 | SZ | 04/10/14 | OP37559 | GYZ7539 |

**The QC reported here applies to the following samples:** **Method:** SW846 8011

MC29594-1, MC29594-2, MC29594-3, MC29594-4, MC29594-5, MC29594-6, MC29594-7, MC29594-9

| CAS No. | Compound | MC29574-1 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 | | 0.0685 | 0.052 | 76 | 0.0672 | 0.051 | 76 | 2 | 64-141/29 |
| 106-93-4 | 1,2-Dibromoethane | ND | | 0.0685 | 0.056 | 82 | 0.0672 | 0.048 | 71 | 15 | 63-163/27 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29574-1 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 92% | 89% | 101% | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 81% | 73% | 75% | 36-173% |

* = Outside of Control Limits.

# Volatile Surrogate Recovery Summary



**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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] |
|---|---|---|---|
| MC29594-1 | YZ89194.D | 120 | 84 |
| MC29594-2 | YZ89195.D | 105 | 83 |
| MC29594-3 | YZ89196.D | 120 | 92 |
| MC29594-4 | YZ89197.D | 104 | 98 |
| MC29594-5 | YZ89198.D | 95 | 96 |
| MC29594-6 | YZ89199.D | 105 | 115 |
| MC29594-7 | YZ89200.D | 106 | 84 |
| MC29594-9 | YZ89201.D | 102 | 80 |
| OP37559-BS | YZ89184.D | 71 | 83 |
| OP37559-MB | YZ89183.D | 74 | 75 |
| OP37559-MS | YZ89185.D | 92 | 81 |
| OP37559-MSD | YZ89186.D | 89 | 73 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = Bromofluorobenzene (S) | 36-173% |

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

# GC Surrogate Retention Time Summary



**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | GYZ7539-ICC7539 | **Injection Date:** | 04/11/14 |
| **Lab File ID:** | YZ89179.D | **Injection Time:** | 14:47 |
| **Instrument ID:** | GCYZ | **Method:** | SW846 8011 |

| | S1 [a] RT | S1 [b] RT |
|---|---|---|
| Check Std | 4.08 | 4.76 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 [a] RT | S1 [b] RT |
|---|---|---|---|---|---|
| OP37559-MB | YZ89183.D | 04/11/14 | 17:18 | 4.08 | 4.76 |
| OP37560-MB | YZ89183A.D | 04/11/14 | 17:18 | 4.08 | 4.76 |
| OP37559-BS | YZ89184.D | 04/11/14 | 17:44 | 4.08 | 4.76 |
| OP37560-BS | YZ89184A.D | 04/11/14 | 17:44 | 4.08 | 4.76 |
| OP37559-MS | YZ89185.D | 04/11/14 | 18:10 | 4.08 | 4.76 |
| OP37560-MS | YZ89185A.D | 04/11/14 | 18:10 | 4.08 | 4.76 |
| OP37559-MSD | YZ89186.D | 04/11/14 | 18:36 | 4.08 | 4.76 |
| OP37560-MSD | YZ89186A.D | 04/11/14 | 18:36 | 4.08 | 4.76 |
| MC29300-20 | YZ89187A.D | 04/11/14 | 19:03 | 4.08 | 4.76 |
| MC29574-1 | YZ89187.D | 04/11/14 | 19:03 | 4.08 | 4.76 |
| ZZZZZZ | YZ89188.D | 04/11/14 | 19:29 | 4.08 | 4.76 |
| ZZZZZZ | YZ89189.D | 04/11/14 | 19:55 | 4.08 | 4.76 |
| ZZZZZZ | YZ89190.D | 04/11/14 | 20:21 | 4.08 | 4.76 |
| ZZZZZZ | YZ89191.D | 04/11/14 | 20:47 | 4.08 | 4.76 |
| ZZZZZZ | YZ89192.D | 04/11/14 | 21:15 | 4.08 | 4.76 |

**Surrogate Compounds**

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

# GC Surrogate Retention Time Summary



**Job Number:** MC29594
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | GYZ7539-CC7539 | **Injection Date:** | 04/11/14 |
| **Lab File ID:** | YZ89193.D | **Injection Time:** | 21:41 |
| **Instrument ID:** | GCYZ | **Method:** | SW846 8011 |

| | S1 [a] RT | S1 [b] RT |
|---|---|---|
| Check Std | 4.08 | 4.76 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 [a] RT | S1 [b] RT |
|---|---|---|---|---|---|
| MC29594-1 | YZ89194.D | 04/11/14 | 22:06 | 4.08 | 4.76 |
| MC29594-2 | YZ89195.D | 04/11/14 | 22:32 | 4.08 | 4.76 |
| MC29594-3 | YZ89196.D | 04/11/14 | 22:57 | 4.08 | 4.76 |
| MC29594-4 | YZ89197.D | 04/11/14 | 23:24 | 4.08 | 4.76 |
| MC29594-5 | YZ89198.D | 04/11/14 | 23:49 | 4.08 | 4.76 |
| MC29594-6 | YZ89199.D | 04/12/14 | 00:14 | 4.08 | 4.76 |
| MC29594-7 | YZ89200.D | 04/12/14 | 00:40 | 4.08 | 4.76 |
| MC29594-9 | YZ89201.D | 04/12/14 | 01:07 | 4.08 | 4.76 |
| ZZZZZZ | YZ89202.D | 04/12/14 | 01:34 | 4.08 | 4.76 |
| ZZZZZZ | YZ89203.D | 04/12/14 | 02:01 | 4.08 | 4.76 |

**Surrogate Compounds**

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

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*e-Hardcopy 2.0*
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# Technical Report for

## Shell Oil

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana,

SGS Accutest Job Number: MC29640

Sampling Date: 04/09/14



Report to:

AECOM, INC.

Melissa.mansker@aecom.com

ATTN: Melissa Mansker

Total number of pages in report: 93

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.

H. (Brad) Madadian
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO (MA00136) MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.



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SGS ACCUTEST

November 2, 2016

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

RE: SGS Accutest Job # MC29640

Dear Elizabeth Kunkel

As you are aware, SGS Accutest Inc. - Marlboroug has been conducting an extensive review of data associated with some historical Gas Chromatography-Mass Spectroscopy volatiles analyses. As a result of this review it was determined that some revisions of the original test report for this job were needed. These corrections have been incorporated into the revised report.

Please be assured that corrective actions have been put in place to address this matter and prevent a recurrence.

We apologize for any inconvenience that this issue may have caused. Please don't hesitate to contact us if we can be of further assistance.

Sincerely

**H. (Brad) Madadian**

Regional Laboratory Director
SGS Accutest Inc. - Marlborough

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# Sample Summary

Shell Oil

Job No: MC29640

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample Number | Collected Date | Time | By | Received | Matrix Code | Type | Client Sample ID |
|---|---|---|---|---|---|---|---|
| MC29640-1 | 04/09/14 | 10:35 | DMMM | 04/10/14 | AQ | Ground Water | MW16-ROX-040914 |
| MC29640-2 | 04/09/14 | 11:30 | DMMM | 04/10/14 | AQ | Ground Water | MW24-ROX-040914 |
| MC29640-3 | 04/09/14 | 13:45 | DMMM | 04/10/14 | AQ | Ground Water | P54-ROX-040914 |
| MC29640-4 | 04/09/14 | 14:50 | DMMM | 04/10/14 | AQ | Ground Water | MW3-ROX-040914 |
| MC29640-5 | 04/09/14 | 00:00 | DMMM | 04/10/14 | AQ | Trip Blank Water | TB-ROX-040914-HCL |
| MC29640-6 | 04/09/14 | 00:00 | DMMM | 04/10/14 | AQ | Trip Blank Water | TB-ROX-040914-ST |

# SAMPLE DELIVERY GROUP CASE NARRATIVE



**Client:** She O **Job No** MC29640

**Site:** URSMOSTL:Roxana 2Q 4 GW/ 2 562973 03002 900 South Centra **Report Date** /2/20 6 3:09: 6 PM

4 Samp e(s), 2 Tr p B ank(s) were co ected on 04/09/20 4 and were rece ved at SGS Accutest New Eng and on 04/ 0/20 4 proper y preserved, at 2 Deg C and ntact These Samp es rece ved a job number of MC29640 A st ng of the Laboratory Samp e ID, C ent Samp e ID and dates of co ect on are presented n the Resu ts Summary Sect on of th s report -Ch orohexane, Benzeneth o , D benz(a,h)acr d ne, Indene, and Qu no ne were searched n the bra y search and reported on y f detect ons were found

Except as noted be ow, a method spec f ed ca brat ons and qua ty contro performance cr ter a were met for th s job For more nformat on, p ease refer to QC summary pages

## Volatiles by GCMS By Method SW846 8260C

**Matrix:** AQ **Batch ID:** MSV 8

- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29634-4MS, MC29634-4MSD were used as the QC samp es nd cated
- A method b anks for th s batch meet method spec f c cr ter a
- B ank Sp ke Recovery(s) for 2-Ch oroethy v ny ether, Acro e n are outs de contro m ts
- Matr x Sp ke Recovery(s) for ,2,3-Tr ch orobenzene, 2-Ch oroethy v ny ether, Acetone, Naphtha ene are outs de contro m ts Outs de contro m ts due to poss b e matr x nterference
- Matr x Sp ke Dup cate Recove y(s) for 2-Ch oroethy v ny ether, Acetone are outs de contro m ts Outs de contro m ts due to poss b e matr x nterference
- RPD(s) for MSD for ,2,3-Tr ch orobenzene, Naphtha ene are outs de contro m ts for samp e MC29634-4MSD H gh RPD due to poss b e matr x nterference and/or samp e non-homogene ty
- MC29634-4MS/MSD for Acro e n: Outs de contro m ts
- Carbon d su f de, Ac y on tr e, 2-Ch oroethy v ny ether, ,4-D oxane: Cont nu ng Ca brat on Ver f cat on outs de of acceptance cr ter a Samp e resu t may be b ased ow

**Matrix:** AQ **Batch ID:** MSV 2

- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29640- MS, MC29640- MSD were used as the QC samp es nd cated
- A method b anks for th s batch meet method spec f c cr ter a
- B ank Sp ke Recovery(s) for 2-Ch oroethy v ny ether, 2-Hexanone, Acetone, Acro e n are outs de contro m ts
- Matr x Sp ke Recovery(s) for ,2,3-Tr ch orobenzene, ,4-D oxane, 2-Ch oroethy v ny ether, Acro e n, D ch orod f uoromethane, Naphtha ene are outs de contro m ts Outs de contro m ts due to poss b e matr x nterference
- Matr x Sp ke Dup cate Recove y(s) for 2-Ch oroethy v ny ether, Acro e n, D ch orod f uoromethane are outs de contro m ts Outs de contro m ts due to poss b e matr x nterference
- RPD(s) for MSD for ,2,3-Tr ch orobenzene, Naphtha ene are outs de contro m ts for samp e MC29640- MSD H gh RPD due to poss b e matr x nterference and/or samp e non-homogene ty
- 2-Ch oroethy v ny ether: Cont nu ng Ca brat on Ver f cat on outs de of acceptance cr ter a Samp e resu t may be b ased ow

## Extractables by GCMS By Method SW846 8270D

**Matrix:** AQ **Batch ID:** OP37547

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29300- 8MS, MC29300- 8MSD were used as the QC samp es nd cated
- Cont nu ng ca brat on check standard MSR 405-CC 399 for D -n-octy phtha ate exceed 40% d fference (response b as h gh) Assoc ated samp es are non-detect for th s compound
- Samp e(s) MC29640- , MC29640-2, MC29640-3, MC29640-4 have compound(s) reported w th a "B" qua f er, nd cat ng ana yte s found n the assoc ated method b ank
- OP37547-MS/MSD Recovery(s) for Pyr d ne are outs de contro m ts Outs de contro m ts due to poss b e matr x nterference Refer to B ank Sp ke
- RPD(s) for MSD for 2,4,6-Tr ch oropheno are outs de contro m ts for samp e OP37547-MSD H gh RPD due to poss b e matr x nterference and/or samp e non-homogene ty

## Extractables by GCMS By Method SW846 8270D BY SIM

**Matrix:** AQ **Batch ID:** OP37548

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29300-2 MS, MC29300-2 MSD were used as the QC samp es nd cated
- Samp e(s) MC29640-4 have compound(s) repo ted w th a "B" qua f er, nd cat ng ana yte s found n the assoc ated method b ank

## Volatiles by GC By Method SW846 8011

**Matrix:** AQ **Batch ID:** OP37606

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC297 3-2MS, MC297 3-2MSD were used as the QC samp es nd cated
- A method b anks for th s batch meet method spec f c cr ter a

SGS Accutest New Eng and cert f es that a ana ys s were performed w th n method spec f cat on It s further recommended that th s report to be used n ts ent rety The Laborato y D rector for SGS Accutest New Eng and or ass gnee as ver f ed by the s gnature on the cover page has author zed the re ease of th s repo t(MC29640)

# Summary of Hits



**Job Number:** MC29640
**Account:** Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Collected:** 04/09/14



| Lab Sample ID / Analyte | Client Sample ID | Result/ Qual | RL | MDL | Units | Method |
|---|---|---|---|---|---|---|
| **MC29640-1** | **MW16-ROX-040914** | | | | | |
| Benzene | | 0.34 J | 0.50 | 0.32 | ug/l | SW846 8260C |
| Di-n-butyl phthalate | | 0.67 JB | 5.9 | 0.20 | ug/l | SW846 8270D |
| **MC29640-2** | **MW24-ROX-040914** | | | | | |
| Di-n-butyl phthalate | | 0.92 JB | 5.6 | 0.19 | ug/l | SW846 8270D |
| **MC29640-3** | **P54-ROX-040914** | | | | | |
| Benzene | | 0.81 | 0.50 | 0.32 | ug/l | SW846 8260C |
| Di-n-butyl phthalate | | 0.62 JB | 6.0 | 0.21 | ug/l | SW846 8270D |
| **MC29640-4** | **MW3-ROX-040914** | | | | | |
| Benzene | | 1.5 | 0.50 | 0.32 | ug/l | SW846 8260C |
| Di-n-butyl phthalate | | 0.56 JB | 5.6 | 0.19 | ug/l | SW846 8270D |
| bis(2-Ethylhexyl)phthalate | | 0.38 J | 2.2 | 0.37 | ug/l | SW846 8270D |
| Phenanthrene | | 0.019 JB | 0.056 | 0.014 | ug/l | SW846 8270D BY SIM |
| **MC29640-5** | **TB-ROX-040914-HCL** | | | | | |
| No hits reported in this sample. | | | | | | |
| **MC29640-6** | **TB-ROX-040914-ST** | | | | | |
| No hits reported in this sample. | | | | | | |

## Sample Results

Report of Analysis

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW16-ROX-040914 | | |
| **Lab Sample ID:** | MC29640-1 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V29988.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |
| 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 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | 0.34 | 0.50 | 0.32 | ug/l | J |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [a] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-040914 | | |
| **Lab Sample ID:** | MC29640-1 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-040914 | | |
| **Lab Sample ID:** | MC29640-1 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 98% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 87% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 89% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040914 | | |
| **Lab Sample ID:** | MC29640-1 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38092.D | 1 | 04/12/14 | KR | 04/10/14 | OP37547 | MSR1405 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 850 ml | 1.0 ml |
| Run #2 | | |

**ABN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 12 | 2.9 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 5.9 | 0.36 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 12 | 0.97 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 12 | 0.47 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 12 | 0.66 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 2.9 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 12 | 2.3 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 12 | 0.27 | ug/l | |
| | 3&4-Methylphenol | ND | 12 | 0.55 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 12 | 3.4 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 0.63 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 12 | 1.3 | ug/l | |
| 108-95-2 | Phenol | ND | 5.9 | 0.36 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 12 | 0.44 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 12 | 0.21 | ug/l | |
| 62-53-3 | Aniline | ND | 12 | 0.75 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.9 | 0.55 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.9 | 0.62 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 12 | 2.7 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.9 | 0.37 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 12 | 0.66 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.9 | 0.34 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.9 | 0.41 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.9 | 0.39 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.9 | 0.30 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.9 | 0.28 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 12 | 0.54 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 12 | 0.35 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.9 | 0.31 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.4 | 0.30 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.67 | 5.9 | 0.20 | ug/l | JB |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.9 | 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:** | MW16-ROX-040914 | | |
| **Lab Sample ID:** | MC29640-1 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**ABN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 84-66-2 | Diethyl phthalate | ND | 5.9 | 0.24 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.9 | 0.40 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.4 | 0.39 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.9 | 0.34 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 12 | 1.5 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.9 | 0.36 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.9 | 0.53 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 12 | 0.47 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 12 | 1.6 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 12 | 2.5 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.9 | 0.46 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.9 | 1.2 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.9 | 0.47 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.9 | 0.23 | ug/l | |
| 110-86-1 | Pyridine | ND | 12 | 0.61 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 42% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 29% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 66% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 63% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 62% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 87% | | 30-130% |

| 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-040914 | | |
| **Lab Sample ID:** | MC29640-1 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88744.D | 1 | 04/23/14 | MR | 04/10/14 | OP37548 | MSI3305 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 850 ml | 1.0 ml |
| Run #2 | | |

**BN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | ND | 0.12 | 0.081 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.12 | 0.058 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.12 | 0.11 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.059 | 0.023 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.12 | 0.034 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.059 | 0.037 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.12 | 0.032 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.12 | 0.045 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.12 | 0.028 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.12 | 0.038 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.12 | 0.048 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.12 | 0.12 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.12 | 0.036 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.24 | 0.059 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.24 | 0.087 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 0.059 | 0.015 | ug/l | |
| 129-00-0 | Pyrene | ND | 0.12 | 0.045 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 62% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 59% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 85% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040914 | | |
| **Lab Sample ID:** | MC29640-1 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89233.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.9 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0051 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 107% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 75% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040914 | | |
| **Lab Sample ID:** | MC29640-2 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V29989.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |
| 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 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [a] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-040914 | | |
| **Lab Sample ID:** | MC29640-2 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-040914 | | |
| **Lab Sample ID:** | MC29640-2 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 101% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 89% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 92% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040914 | | |
| **Lab Sample ID:** | MC29640-2 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38093.D | 1 | 04/12/14 | KR | 04/10/14 | OP37547 | MSR1405 |
| 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 | 0.34 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 11 | 0.92 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 11 | 0.44 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 11 | 0.62 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 22 | 2.8 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 11 | 2.1 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 11 | 0.25 | ug/l | |
| | 3&4-Methylphenol | ND | 11 | 0.52 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 11 | 3.2 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 22 | 0.59 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 11 | 1.2 | ug/l | |
| 108-95-2 | Phenol | ND | 5.6 | 0.34 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 11 | 0.41 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 11 | 0.19 | ug/l | |
| 62-53-3 | Aniline | ND | 11 | 0.71 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.6 | 0.52 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.6 | 0.59 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 11 | 2.5 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.6 | 0.35 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 11 | 0.62 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.6 | 0.32 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.6 | 0.39 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.6 | 0.37 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.6 | 0.28 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.6 | 0.27 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 11 | 0.51 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 11 | 0.33 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.6 | 0.30 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.2 | 0.29 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.92 | 5.6 | 0.19 | ug/l | JB |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.6 | 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:** | MW24-ROX-040914 | | |
| **Lab Sample ID:** | MC29640-2 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.22 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.6 | 0.38 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.2 | 0.37 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.6 | 0.32 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 11 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.6 | 0.34 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.6 | 0.50 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 11 | 0.44 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 11 | 1.5 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 11 | 2.4 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.6 | 0.43 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.6 | 1.1 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.6 | 0.45 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.6 | 0.21 | ug/l | |
| 110-86-1 | Pyridine | ND | 11 | 0.57 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 26% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 17% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 72% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 77% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 85% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 73% | | 30-130% |

| 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-040914 | | |
| **Lab Sample ID:** | MC29640-2 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88745.D | 1 | 04/23/14 | MR | 04/10/14 | OP37548 | MSI3305 |
| 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 | 0.077 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.11 | 0.055 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.11 | 0.10 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.056 | 0.022 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.11 | 0.032 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.056 | 0.035 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.11 | 0.030 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.11 | 0.043 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.11 | 0.026 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.11 | 0.035 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.11 | 0.045 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.11 | 0.11 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.11 | 0.034 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.22 | 0.055 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.22 | 0.082 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 0.056 | 0.014 | ug/l | |
| 129-00-0 | Pyrene | ND | 0.11 | 0.043 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 67% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 65% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 91% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040914 | | |
| **Lab Sample ID:** | MC29640-2 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89234.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 37.2 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0051 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 112% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 86% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040914 | | |
| **Lab Sample ID:** | MC29640-3 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V29990.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |
| 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 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | 0.81 | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [a] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-040914 | | |
| **Lab Sample ID:** | MC29640-3 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-040914 | | |
| **Lab Sample ID:** | MC29640-3 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 100% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 88% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 93% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates 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-040914 | | |
| **Lab Sample ID:** | MC29640-3 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38094.D | 1 | 04/12/14 | KR | 04/10/14 | OP37547 | MSR1405 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 830 ml | 1.0 ml |
| Run #2 | | |

**ABN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 12 | 3.0 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 6.0 | 0.37 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 12 | 0.99 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 12 | 0.48 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 12 | 0.68 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 3.0 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 12 | 2.3 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 12 | 0.27 | ug/l | |
| | 3&4-Methylphenol | ND | 12 | 0.56 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 12 | 3.5 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 0.64 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 12 | 1.3 | ug/l | |
| 108-95-2 | Phenol | ND | 6.0 | 0.36 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 12 | 0.45 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 12 | 0.21 | ug/l | |
| 62-53-3 | Aniline | ND | 12 | 0.77 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 6.0 | 0.57 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 6.0 | 0.64 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 12 | 2.7 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 6.0 | 0.38 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 12 | 0.67 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 6.0 | 0.35 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 6.0 | 0.42 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 6.0 | 0.40 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 6.0 | 0.30 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 6.0 | 0.29 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 12 | 0.55 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 12 | 0.36 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 6.0 | 0.32 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.4 | 0.31 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.62 | 6.0 | 0.21 | ug/l | JB |
| 117-84-0 | Di-n-octyl phthalate | ND | 6.0 | 0.34 | 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-040914 | | |
| **Lab Sample ID:** | MC29640-3 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**ABN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 84-66-2 | Diethyl phthalate | ND | 6.0 | 0.24 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 6.0 | 0.41 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.4 | 0.40 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 6.0 | 0.35 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 12 | 1.5 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 6.0 | 0.36 | ug/l | |
| 78-59-1 | Isophorone | ND | 6.0 | 0.54 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 12 | 0.48 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 12 | 1.7 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 12 | 2.6 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 6.0 | 0.47 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 6.0 | 1.2 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 6.0 | 0.49 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 6.0 | 0.23 | ug/l | |
| 110-86-1 | Pyridine | ND | 12 | 0.62 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 34% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 23% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 56% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 63% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 61% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 117% | | 30-130% |

| 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:** | P54-ROX-040914 | | |
| **Lab Sample ID:** | MC29640-3 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88746.D | 1 | 04/23/14 | MR | 04/10/14 | OP37548 | MSI3305 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 830 ml | 1.0 ml |
| Run #2 | | |

**BN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | ND | 0.12 | 0.083 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.12 | 0.060 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.12 | 0.11 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.060 | 0.023 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.12 | 0.035 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.060 | 0.038 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.12 | 0.032 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.12 | 0.047 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.12 | 0.029 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.12 | 0.038 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.12 | 0.049 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.12 | 0.12 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.12 | 0.037 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.24 | 0.060 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.24 | 0.089 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 0.060 | 0.015 | ug/l | |
| 129-00-0 | Pyrene | ND | 0.12 | 0.046 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 60% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 58% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 85% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040914 | | |
| **Lab Sample ID:** | MC29640-3 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89236.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.8 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0052 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 101% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 75% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040914 | | |
| **Lab Sample ID:** | MC29640-4 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V29991.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |
| 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 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | 1.5 | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [a] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-040914 | | |
| **Lab Sample ID:** | MC29640-4 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-040914 | | |
| **Lab Sample ID:** | MC29640-4 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 81% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 89% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 92% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040914 | | |
| **Lab Sample ID:** | MC29640-4 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38095.D | 1 | 04/12/14 | KR | 04/10/14 | OP37547 | MSR1405 |
| 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 | 0.34 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 11 | 0.92 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 11 | 0.44 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 11 | 0.62 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 22 | 2.8 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 11 | 2.1 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 11 | 0.25 | ug/l | |
| | 3&4-Methylphenol | ND | 11 | 0.52 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 11 | 3.2 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 22 | 0.59 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 11 | 1.2 | ug/l | |
| 108-95-2 | Phenol | ND | 5.6 | 0.34 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 11 | 0.41 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 11 | 0.19 | ug/l | |
| 62-53-3 | Aniline | ND | 11 | 0.71 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.6 | 0.52 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.6 | 0.59 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 11 | 2.5 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.6 | 0.35 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 11 | 0.62 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.6 | 0.32 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.6 | 0.39 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.6 | 0.37 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.6 | 0.28 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.6 | 0.27 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 11 | 0.51 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 11 | 0.33 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.6 | 0.30 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.2 | 0.29 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.56 | 5.6 | 0.19 | ug/l | JB |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.6 | 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-040914 | | |
| **Lab Sample ID:** | MC29640-4 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.22 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.6 | 0.38 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 0.38 | 2.2 | 0.37 | ug/l | J |
| 118-74-1 | Hexachlorobenzene | ND | 5.6 | 0.32 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 11 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.6 | 0.34 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.6 | 0.50 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 11 | 0.44 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 11 | 1.5 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 11 | 2.4 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.6 | 0.43 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.6 | 1.1 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.6 | 0.45 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.6 | 0.21 | ug/l | |
| 110-86-1 | Pyridine | ND | 11 | 0.57 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 25% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 18% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 60% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 68% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 68% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 108% | | 30-130% |

| 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:** | MW3-ROX-040914 | | |
| **Lab Sample ID:** | MC29640-4 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88747.D | 1 | 04/23/14 | MR | 04/10/14 | OP37548 | MSI3305 |
| 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 | 0.077 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.11 | 0.055 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.11 | 0.10 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.056 | 0.022 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.11 | 0.032 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.056 | 0.035 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.11 | 0.030 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.11 | 0.043 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.11 | 0.026 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.11 | 0.035 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.11 | 0.045 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.11 | 0.11 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.11 | 0.034 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.22 | 0.055 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.22 | 0.082 | ug/l | |
| 85-01-8 | Phenanthrene | 0.019 | 0.056 | 0.014 | ug/l | JB |
| 129-00-0 | Pyrene | ND | 0.11 | 0.043 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 66% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 63% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 94% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040914 | | |
| **Lab Sample ID:** | MC29640-4 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89237.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.4 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0052 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 123% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 92% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040914-HCL | | |
| **Lab Sample ID:** | MC29640-5 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V29897.D | 1 | 04/17/14 | AMY | n/a | n/a | MSV1118 |
| 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 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile [a] | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide [a] | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [a] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-040914-HCL | | |
| **Lab Sample ID:** | MC29640-5 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane [a] | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-040914-HCL | | |
| **Lab Sample ID:** | MC29640-5 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 90% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 89% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 93% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-040914-ST | | |
| **Lab Sample ID:** | MC29640-6 | **Date Sampled:** | 04/09/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/10/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89238.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.8 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0052 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 91% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 66% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

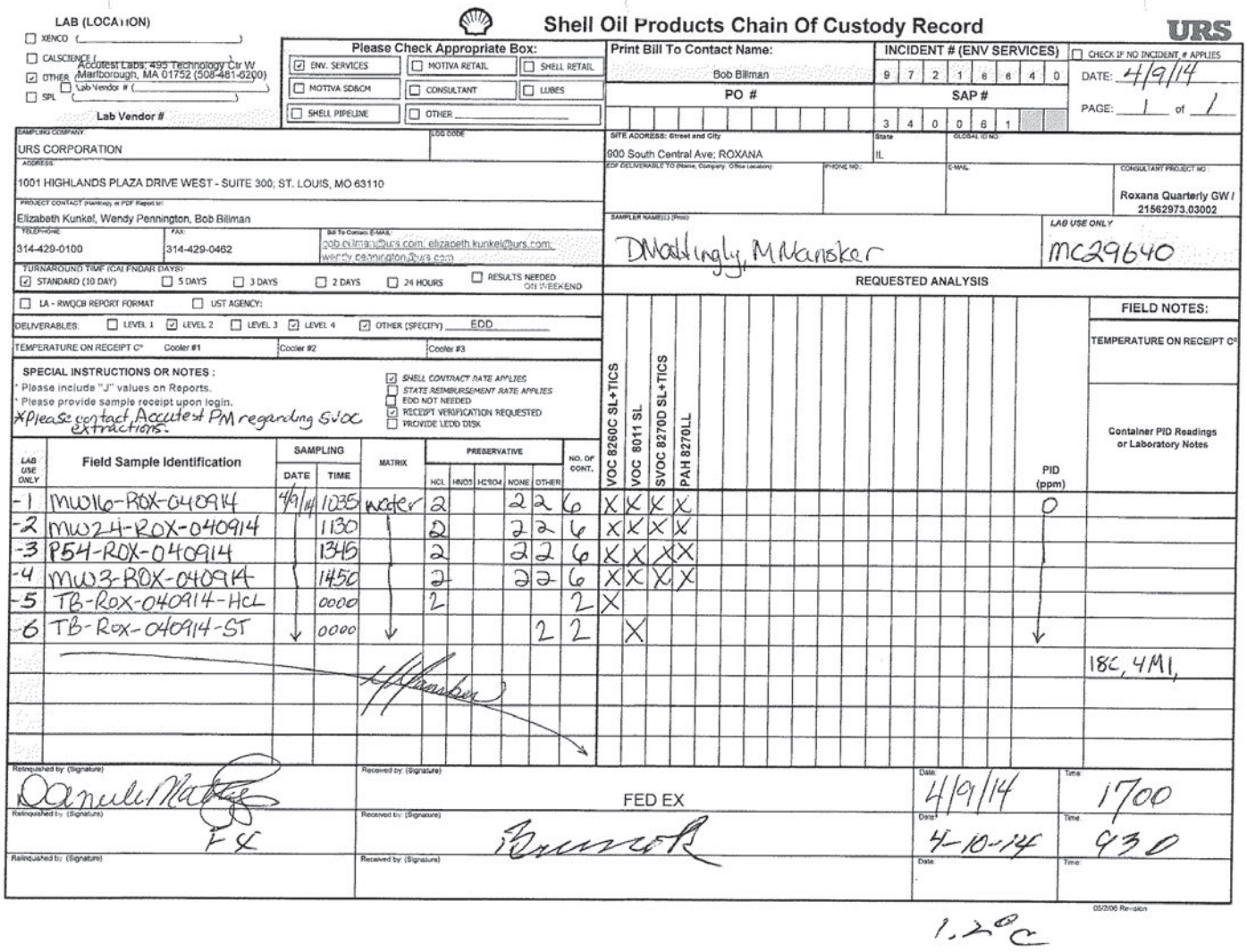
## Misc. Forms



# Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



LAB (LOCATION)
☐ XENCO ( )
☐ CALSCIENCE ( )
☑ OTHER Accutest Labs: 495 Technology Ctr W (Marlborough, MA 01752 (508-481-6200)
☐ SPL ☐ Lab Vendor # ( )
Lab Vendor #

Shell Oil Products Chain Of Custody Record

URS

Please Check Appropriate Box:
☑ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SD&CM ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name: Bob Billman
INCIDENT # (ENV SERVICES): 97216840
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 4/9/14
PAGE: 1 of 1
PO #
SAP # 340061

SAMPLING COMPANY: URS CORPORATION
LOG CODE:
ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300; ST. LOUIS, MO 63110
PROJECT CONTACT (Hardcopy or PDF Report to): Elizabeth Kunkel, Wendy Pennington, Bob Billman
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: bob.billman@urs.com; elizabeth.kunkel@urs.com; wendy.pennington@urs.com
SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA
State: IL
GLOBAL ID NO.:
EDF DELIVERABLE TO (Name, Company, Office Location):
PHONE NO.:
E-MAIL:
CONSULTANT PROJECT NO.: Roxana Quarterly GW / 21562973.03002
SAMPLER NAME(S) (Print): D Mattingly, M Manaker
LAB USE ONLY: MC29640

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.
*Please contact Accutest PM regarding SVOC extractions.

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD 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 | PID (ppm) | Container PID Readings or Laboratory Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -1 | MW16-ROX-040914 | 4/9/14 | 1035 | water | 2 | | | 2 | 2 | 6 | X | X | X | X | 0 | |
| -2 | MW24-ROX-040914 | | 1130 | | 2 | | | 2 | 2 | 6 | X | X | X | X | | |
| -3 | P54-ROX-040914 | | 1345 | | 2 | | | 2 | 2 | 6 | X | X | X | X | | |
| -4 | MW3-ROX-040914 | | 1450 | | 2 | | | 2 | 2 | 6 | X | X | X | X | | |
| -5 | TB-ROX-040914-HCL | | 0000 | | 2 | | | | | 2 | X | | | | | |
| -6 | TB-ROX-040914-ST | | 0000 | | | | | | 2 | 2 | | X | | | | |
| | | | | | | | | | | | | | | | | 18C, 4M1, |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

FIELD NOTES:
TEMPERATURE ON RECEIPT C°

Relinquished by: (Signature) Daniel Mattingly
Received by: (Signature) FED EX
Date: 4/9/14 Time: 1700

Relinquished by: (Signature) FX
Received by: (Signature)
Date: 4-10-14 Time: 930

Relinquished by: (Signature)
Received by: (Signature)
Date: Time:

05/2006 Revision

1.2°C

5.1 5

MC29640: Chain of Custody
Page 1 of 2

# Accutest Laboratories Sample Receipt Summary

**Accutest Job Number:** MC29640 **Client:** URS **Immediate Client Services Action Required:** No

**Date / Time Received:** 4/10/2014 **Delivery Method:** **Client Service Action Required at Login:** No

**Project:** 900 SOUTH CENTRAL **No. Coolers:** 1 **Airbill #'s:**

| 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. Cooler temp verification: | Infared gun | | |
| 3. Cooler media: | Ice (bag) | | |

| 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
www/accutest.com



MC29640: Chain of Custody
Page 2 of 2

# Internal Sample Tracking Chronicle

Shell Oil

Job No: MC29640

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample Number | Method | Analyzed | By | Prepped | By | Test Codes |
|---|---|---|---|---|---|---|
| MC29640-1 Collected: 09-APR-14 10:35 By: DMMM Received: 10-APR-14 By: MW16-ROX-040914 | | | | | | |
| MC29640-1 | SW846 8270D | 12-APR-14 01:27 | KR | 10-APR-14 | AJ | AB8270SL+ |
| MC29640-1 | SW846 8011 | 15-APR-14 16:56 | SZ | 14-APR-14 | MT | V8011SL |
| MC29640-1 | SW846 8260C | 19-APR-14 11:22 | AMY | | | V8260SL+ |
| MC29640-1 | SW846 8270D BY SIM | 23-APR-14 17:40 | MR | 10-APR-14 | AJ | B8270SIMSL |
| MC29640-2 Collected: 09-APR-14 11:30 By: DMMM Received: 10-APR-14 By: MW24-ROX-040914 | | | | | | |
| MC29640-2 | SW846 8270D | 12-APR-14 01:53 | KR | 10-APR-14 | AJ | AB8270SL+ |
| MC29640-2 | SW846 8011 | 15-APR-14 17:25 | SZ | 14-APR-14 | MT | V8011SL |
| MC29640-2 | SW846 8260C | 19-APR-14 11:48 | AMY | | | V8260SL+ |
| MC29640-2 | SW846 8270D BY SIM | 23-APR-14 18:02 | MR | 10-APR-14 | AJ | B8270SIMSL |
| MC29640-3 Collected: 09-APR-14 13:45 By: DMMM Received: 10-APR-14 By: P54-ROX-040914 | | | | | | |
| MC29640-3 | SW846 8270D | 12-APR-14 02:20 | KR | 10-APR-14 | AJ | AB8270SL+ |
| MC29640-3 | SW846 8011 | 15-APR-14 18:21 | SZ | 14-APR-14 | MT | V8011SL |
| MC29640-3 | SW846 8260C | 19-APR-14 12:14 | AMY | | | V8260SL+ |
| MC29640-3 | SW846 8270D BY SIM | 23-APR-14 18:25 | MR | 10-APR-14 | AJ | B8270SIMSL |
| MC29640-4 Collected: 09-APR-14 14:50 By: DMMM Received: 10-APR-14 By: MW3-ROX-040914 | | | | | | |
| MC29640-4 | SW846 8270D | 12-APR-14 02:47 | KR | 10-APR-14 | AJ | AB8270SL+ |
| MC29640-4 | SW846 8011 | 15-APR-14 18:49 | SZ | 14-APR-14 | MT | V8011SL |
| MC29640-4 | SW846 8260C | 19-APR-14 12:40 | AMY | | | V8260SL+ |
| MC29640-4 | SW846 8270D BY SIM | 23-APR-14 18:48 | MR | 10-APR-14 | AJ | B8270SIMSL |
| MC29640-5 Collected: 09-APR-14 00:00 By: DMMM Received: 10-APR-14 By: TB-ROX-040914-HCL | | | | | | |
| MC29640-5 | SW846 8260C | 17-APR-14 15:53 | AMY | | | V8260SL+ |
| MC29640-6 Collected: 09-APR-14 00:00 By: DMMM Received: 10-APR-14 By: TB-ROX-040914-ST | | | | | | |

# Internal Sample Tracking Chronicle

Shell Oil

Job No: MC29640

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL



| Sample Number | Method | Analyzed | By | Prepped | By | Test Codes |
|---|---|---|---|---|---|---|
| MC29640-6 | SW846 8011 | 15-APR-14 19:16 | SZ | 14-APR-14 | MT | V8011SL |

# SGS Accutest Internal Chain of Custody



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Received:** 04/10/14



| Sample.Bottle Number | Transfer FROM | Transfer TO | Date/Time | Reason |
|---|---|---|---|---|
| MC29640-1.1 | Walk In Ref #22 | Marc Tahtamoni | 04/10/14 20:26 | Retrieve from Storage |
| MC29640-1.1 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29640-1.3 | VOC Ref #4 | Amy Min Yang | 04/17/14 15:31 | Retrieve from Storage |
| MC29640-1.3 | Amy Min Yang | GCMSV | 04/17/14 15:32 | Load on Instrument |
| MC29640-1.3 | GCMSV | Amy Min Yang | 04/18/14 15:04 | Unload from Instrument |
| MC29640-1.3 | Amy Min Yang | VOC Ref #4 | 04/18/14 15:04 | Return to Storage |
| MC29640-1.3 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29640-1.4 | VOC Ref #4 | Amy Min Yang | 04/19/14 09:17 | Retrieve from Storage |
| MC29640-1.4 | Amy Min Yang | GCMSV | 04/19/14 09:18 | Load on Instrument |
| MC29640-1.4 | GCMSV | Amy Min Yang | 04/21/14 16:48 | Unload from Instrument |
| MC29640-1.4 | Amy Min Yang | VOC Ref #4 | 04/21/14 16:48 | Return to Storage |
| MC29640-1.4 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29640-1.6 | VOC Ref #4 | Marc Tahtamoni | 04/14/14 19:13 | Retrieve from Storage |
| MC29640-1.6 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29640-2.1 | Walk In Ref #22 | Marc Tahtamoni | 04/10/14 20:26 | Retrieve from Storage |
| MC29640-2.1 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29640-2.3 | VOC Ref #4 | Amy Min Yang | 04/19/14 09:17 | Retrieve from Storage |
| MC29640-2.3 | Amy Min Yang | GCMSV | 04/19/14 09:18 | Load on Instrument |
| MC29640-2.3 | GCMSV | Amy Min Yang | 04/21/14 16:48 | Unload from Instrument |
| MC29640-2.3 | Amy Min Yang | VOC Ref #4 | 04/21/14 16:48 | Return to Storage |
| MC29640-2.3 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29640-2.4 | VOC Ref #4 | Amy Min Yang | 04/17/14 15:31 | Retrieve from Storage |
| MC29640-2.4 | Amy Min Yang | GCMSV | 04/17/14 15:32 | Load on Instrument |
| MC29640-2.4 | GCMSV | Amy Min Yang | 04/18/14 15:04 | Unload from Instrument |
| MC29640-2.4 | Amy Min Yang | VOC Ref #4 | 04/18/14 15:04 | Return to Storage |
| MC29640-2.4 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29640-2.6 | VOC Ref #4 | Marc Tahtamoni | 04/14/14 19:13 | Retrieve from Storage |
| MC29640-2.6 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29640-3.1 | Walk In Ref #22 | Marc Tahtamoni | 04/10/14 20:26 | Retrieve from Storage |
| MC29640-3.1 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29640-3.3 | VOC Ref #4 | Amy Min Yang | 04/19/14 09:17 | Retrieve from Storage |
| MC29640-3.3 | Amy Min Yang | GCMSV | 04/19/14 09:18 | Load on Instrument |
| MC29640-3.3 | GCMSV | Amy Min Yang | 04/21/14 16:48 | Unload from Instrument |
| MC29640-3.3 | Amy Min Yang | VOC Ref #4 | 04/21/14 16:48 | Return to Storage |
| MC29640-3.3 | Scott Parsick | | 06/25/14 13:20 | Disposed |

# SGS Accutest Internal Chain of Custody

**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Received:** 04/10/14



| Sample.Bottle Number | Transfer FROM | Transfer TO | Date/Time | Reason |
|---|---|---|---|---|
| MC29640-3.4 | VOC Ref #4 | Amy Min Yang | 04/17/14 15:31 | Retrieve from Storage |
| MC29640-3.4 | Amy Min Yang | GCMSV | 04/17/14 15:32 | Load on Instrument |
| MC29640-3.4 | GCMSV | Amy Min Yang | 04/18/14 15:04 | Unload from Instrument |
| MC29640-3.4 | Amy Min Yang | VOC Ref #4 | 04/18/14 15:04 | Return to Storage |
| MC29640-3.4 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29640-3.6 | VOC Ref #4 | Marc Tahtamoni | 04/14/14 19:13 | Retrieve from Storage |
| MC29640-3.6 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29640-4.1 | Walk In Ref #22 | Marc Tahtamoni | 04/10/14 20:26 | Retrieve from Storage |
| MC29640-4.1 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29640-4.3 | VOC Ref #4 | Amy Min Yang | 04/17/14 15:31 | Retrieve from Storage |
| MC29640-4.3 | Amy Min Yang | GCMSV | 04/17/14 15:32 | Load on Instrument |
| MC29640-4.3 | GCMSV | Amy Min Yang | 04/18/14 15:04 | Unload from Instrument |
| MC29640-4.3 | Amy Min Yang | VOC Ref #4 | 04/18/14 15:04 | Return to Storage |
| MC29640-4.3 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29640-4.4 | VOC Ref #4 | Amy Min Yang | 04/19/14 09:17 | Retrieve from Storage |
| MC29640-4.4 | Amy Min Yang | GCMSV | 04/19/14 09:18 | Load on Instrument |
| MC29640-4.4 | GCMSV | Amy Min Yang | 04/21/14 16:48 | Unload from Instrument |
| MC29640-4.4 | Amy Min Yang | VOC Ref #4 | 04/21/14 16:48 | Return to Storage |
| MC29640-4.4 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29640-4.6 | VOC Ref #4 | Marc Tahtamoni | 04/14/14 19:13 | Retrieve from Storage |
| MC29640-4.6 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29640-5.1 | VOC Ref #4 | Amy Min Yang | 04/17/14 15:31 | Retrieve from Storage |
| MC29640-5.1 | Amy Min Yang | GCMSV | 04/17/14 15:32 | Load on Instrument |
| MC29640-5.1 | GCMSV | Amy Min Yang | 04/18/14 15:04 | Unload from Instrument |
| MC29640-5.1 | Amy Min Yang | VOC Ref #4 | 04/18/14 15:04 | Return to Storage |
| MC29640-5.1 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29640-6.2 | VOC Ref #4 | Marc Tahtamoni | 04/14/14 19:13 | Retrieve from Storage |
| MC29640-6.2 | Scott Parsick | | 06/25/14 13:20 | Disposed |

## 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:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1118-MB | V29896.D | 1 | 04/17/14 | AMY | n/a | n/a | MSV1118 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29640-5

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 2.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |

# Method Blank Summary

**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1118-MB | V29896.D | 1 | 04/17/14 | AMY | n/a | n/a | MSV1118 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29640-5

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | ug/l | |

# Method Blank Summary

**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1118-MB | V29896.D | 1 | 04/17/14 | AMY | n/a | n/a | MSV1118 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29640-5

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 90% | 70-130% |
| 2037-26-5 | Toluene-D8 | 85% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 92% | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

# Method Blank Summary



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1121-MB | V29985.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |



**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29640-1, MC29640-2, MC29640-3, MC29640-4

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 2.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |

# Method Blank Summary



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1121-MB | V29985.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29640-1, MC29640-2, MC29640-3, MC29640-4

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | ug/l | |

# Method Blank Summary



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1121-MB | V29985.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29640-1, MC29640-2, MC29640-3, MC29640-4

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 93% | 70-130% |
| 2037-26-5 | Toluene-D8 | 88% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 92% | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

# Blank Spike Summary



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1118-BS | V29893.D | 1 | 04/17/14 | AMY | n/a | n/a | MSV1118 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29640-5

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 50 | 52.6 | 105 | 70-130 |
| 107-02-8 | Acrolein | 250 | 334 | 134* [a] | 70-130 |
| 107-13-1 | Acrylonitrile | 50 | 37.1 | 74 | 70-130 |
| 71-43-2 | Benzene | 50 | 46.5 | 93 | 70-130 |
| 108-86-1 | Bromobenzene | 50 | 53.3 | 107 | 70-130 |
| 74-97-5 | Bromochloromethane | 50 | 44.0 | 88 | 70-130 |
| 75-27-4 | Bromodichloromethane | 50 | 50.8 | 102 | 70-130 |
| 75-25-2 | Bromoform | 50 | 42.1 | 84 | 70-130 |
| 74-83-9 | Bromomethane | 50 | 57.5 | 115 | 70-130 |
| 78-93-3 | 2-Butanone (MEK) | 50 | 51.0 | 102 | 70-130 |
| 104-51-8 | n-Butylbenzene | 50 | 55.2 | 110 | 70-130 |
| 135-98-8 | sec-Butylbenzene | 50 | 56.0 | 112 | 70-130 |
| 98-06-6 | tert-Butylbenzene | 50 | 59.1 | 118 | 70-130 |
| 75-15-0 | Carbon disulfide | 50 | 39.9 | 80 | 70-130 |
| 56-23-5 | Carbon tetrachloride | 50 | 57.7 | 115 | 70-130 |
| 108-90-7 | Chlorobenzene | 50 | 48.8 | 98 | 70-130 |
| 75-00-3 | Chloroethane | 50 | 65.0 | 130 | 70-130 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 50 | 31.1 | 62* [a] | 70-130 |
| 67-66-3 | Chloroform | 50 | 47.2 | 94 | 70-130 |
| 74-87-3 | Chloromethane | 50 | 56.4 | 113 | 70-130 |
| 95-49-8 | o-Chlorotoluene | 50 | 54.4 | 109 | 70-130 |
| 106-43-4 | p-Chlorotoluene | 50 | 55.6 | 111 | 70-130 |
| 124-48-1 | Dibromochloromethane | 50 | 46.8 | 94 | 70-130 |
| 95-50-1 | 1,2-Dichlorobenzene | 50 | 49.4 | 99 | 70-130 |
| 541-73-1 | 1,3-Dichlorobenzene | 50 | 51.8 | 104 | 70-130 |
| 106-46-7 | 1,4-Dichlorobenzene | 50 | 50.8 | 102 | 70-130 |
| 75-71-8 | Dichlorodifluoromethane | 50 | 41.9 | 84 | 70-130 |
| 75-34-3 | 1,1-Dichloroethane | 50 | 45.9 | 92 | 70-130 |
| 107-06-2 | 1,2-Dichloroethane | 50 | 51.5 | 103 | 70-130 |
| 75-35-4 | 1,1-Dichloroethene | 50 | 46.9 | 94 | 70-130 |
| 156-59-2 | cis-1,2-Dichloroethene | 50 | 45.7 | 91 | 70-130 |
| 156-60-5 | trans-1,2-Dichloroethene | 50 | 44.3 | 89 | 70-130 |
| 78-87-5 | 1,2-Dichloropropane | 50 | 48.1 | 96 | 70-130 |
| 142-28-9 | 1,3-Dichloropropane | 50 | 47.1 | 94 | 70-130 |
| 594-20-7 | 2,2-Dichloropropane | 50 | 51.4 | 103 | 70-130 |
| 563-58-6 | 1,1-Dichloropropene | 50 | 50.6 | 101 | 70-130 |

* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1118-BS | V29893.D | 1 | 04/17/14 | AMY | n/a | n/a | MSV1118 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29640-5

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | 50 | 44.0 | 88 | 70-130 |
| 10061-02-6 | trans-1,3-Dichloropropene | 50 | 56.8 | 114 | 70-130 |
| 123-91-1 | 1,4-Dioxane | 250 | 181 | 72 | 70-130 |
| 97-63-2 | Ethyl methacrylate | 50 | 41.4 | 83 | 77-137 |
| 100-41-4 | Ethylbenzene | 50 | 53.7 | 107 | 70-130 |
| 87-68-3 | Hexachlorobutadiene | 50 | 51.3 | 103 | 70-130 |
| 591-78-6 | 2-Hexanone | 50 | 61.2 | 122 | 70-130 |
| 98-82-8 | Isopropylbenzene | 50 | 57.1 | 114 | 70-130 |
| 99-87-6 | p-Isopropyltoluene | 50 | 56.7 | 113 | 70-130 |
| 1634-04-4 | Methyl Tert Butyl Ether | 50 | 43.9 | 88 | 70-130 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 50 | 43.6 | 87 | 70-130 |
| 74-95-3 | Methylene bromide | 50 | 47.9 | 96 | 70-130 |
| 75-09-2 | Methylene chloride | 50 | 43.7 | 87 | 70-130 |
| 91-20-3 | Naphthalene | 50 | 49.5 | 99 | 70-130 |
| 103-65-1 | n-Propylbenzene | 50 | 54.4 | 109 | 70-130 |
| 100-42-5 | Styrene | 50 | 52.3 | 105 | 70-130 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 50 | 56.7 | 113 | 70-130 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 50 | 49.7 | 99 | 70-130 |
| 127-18-4 | Tetrachloroethene | 50 | 53.1 | 106 | 70-130 |
| 108-88-3 | Toluene | 50 | 50.8 | 102 | 70-130 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 50 | 53.2 | 106 | 70-130 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 50 | 45.8 | 92 | 70-130 |
| 71-55-6 | 1,1,1-Trichloroethane | 50 | 53.5 | 107 | 70-130 |
| 79-00-5 | 1,1,2-Trichloroethane | 50 | 46.5 | 93 | 70-130 |
| 79-01-6 | Trichloroethene | 50 | 48.6 | 97 | 70-130 |
| 75-69-4 | Trichlorofluoromethane | 50 | 60.6 | 121 | 70-130 |
| 96-18-4 | 1,2,3-Trichloropropane | 50 | 50.8 | 102 | 70-130 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 50 | 56.6 | 113 | 70-130 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 50 | 57.9 | 116 | 70-130 |
| 108-05-4 | Vinyl Acetate | 50 | 42.4 | 85 | 70-130 |
| 75-01-4 | Vinyl chloride | 50 | 59.2 | 118 | 70-130 |
| | m,p-Xylene | 100 | 105 | 105 | 70-130 |
| 95-47-6 | o-Xylene | 50 | 52.9 | 106 | 70-130 |
| 1330-20-7 | Xylene (total) | 150 | 158 | 105 | 70-130 |

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1118-BS | V29893.D | 1 | 04/17/14 | AMY | n/a | n/a | MSV1118 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29640-5

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 82% | 70-130% |
| 2037-26-5 | Toluene-D8 | 88% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 94% | 70-130% |

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1121-BS | V29982.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29640-1, MC29640-2, MC29640-3, MC29640-4

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 50 | 66.1 | 132* [a] | 70-130 |
| 107-02-8 | Acrolein | 250 | 418 | 167* [a] | 70-130 |
| 107-13-1 | Acrylonitrile | 50 | 44.9 | 90 | 70-130 |
| 71-43-2 | Benzene | 50 | 49.7 | 99 | 70-130 |
| 108-86-1 | Bromobenzene | 50 | 54.0 | 108 | 70-130 |
| 74-97-5 | Bromochloromethane | 50 | 47.6 | 95 | 70-130 |
| 75-27-4 | Bromodichloromethane | 50 | 51.3 | 103 | 70-130 |
| 75-25-2 | Bromoform | 50 | 44.8 | 90 | 70-130 |
| 74-83-9 | Bromomethane | 50 | 56.1 | 112 | 70-130 |
| 78-93-3 | 2-Butanone (MEK) | 50 | 57.4 | 115 | 70-130 |
| 104-51-8 | n-Butylbenzene | 50 | 55.5 | 111 | 70-130 |
| 135-98-8 | sec-Butylbenzene | 50 | 56.1 | 112 | 70-130 |
| 98-06-6 | tert-Butylbenzene | 50 | 55.9 | 112 | 70-130 |
| 75-15-0 | Carbon disulfide | 50 | 46.6 | 93 | 70-130 |
| 56-23-5 | Carbon tetrachloride | 50 | 59.9 | 120 | 70-130 |
| 108-90-7 | Chlorobenzene | 50 | 51.1 | 102 | 70-130 |
| 75-00-3 | Chloroethane | 50 | 65.0 | 130 | 70-130 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 50 | 34.5 | 69* [a] | 70-130 |
| 67-66-3 | Chloroform | 50 | 48.5 | 97 | 70-130 |
| 74-87-3 | Chloromethane | 50 | 59.9 | 120 | 70-130 |
| 95-49-8 | o-Chlorotoluene | 50 | 52.2 | 104 | 70-130 |
| 106-43-4 | p-Chlorotoluene | 50 | 54.9 | 110 | 70-130 |
| 124-48-1 | Dibromochloromethane | 50 | 48.5 | 97 | 70-130 |
| 95-50-1 | 1,2-Dichlorobenzene | 50 | 50.4 | 101 | 70-130 |
| 541-73-1 | 1,3-Dichlorobenzene | 50 | 51.8 | 104 | 70-130 |
| 106-46-7 | 1,4-Dichlorobenzene | 50 | 52.0 | 104 | 70-130 |
| 75-71-8 | Dichlorodifluoromethane | 50 | 42.4 | 85 | 70-130 |
| 75-34-3 | 1,1-Dichloroethane | 50 | 49.3 | 99 | 70-130 |
| 107-06-2 | 1,2-Dichloroethane | 50 | 51.4 | 103 | 70-130 |
| 75-35-4 | 1,1-Dichloroethene | 50 | 53.0 | 106 | 70-130 |
| 156-59-2 | cis-1,2-Dichloroethene | 50 | 48.7 | 97 | 70-130 |
| 156-60-5 | trans-1,2-Dichloroethene | 50 | 49.0 | 98 | 70-130 |
| 78-87-5 | 1,2-Dichloropropane | 50 | 51.7 | 103 | 70-130 |
| 142-28-9 | 1,3-Dichloropropane | 50 | 50.9 | 102 | 70-130 |
| 594-20-7 | 2,2-Dichloropropane | 50 | 52.2 | 104 | 70-130 |
| 563-58-6 | 1,1-Dichloropropene | 50 | 53.9 | 108 | 70-130 |

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1121-BS | V29982.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29640-1, MC29640-2, MC29640-3, MC29640-4

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | 50 | 46.2 | 92 | 70-130 |
| 10061-02-6 | trans-1,3-Dichloropropene | 50 | 59.4 | 119 | 70-130 |
| 123-91-1 | 1,4-Dioxane | 250 | 209 | 84 | 70-130 |
| 97-63-2 | Ethyl methacrylate | 50 | 45.7 | 91 | 77-137 |
| 100-41-4 | Ethylbenzene | 50 | 54.8 | 110 | 70-130 |
| 87-68-3 | Hexachlorobutadiene | 50 | 49.2 | 98 | 70-130 |
| 591-78-6 | 2-Hexanone | 50 | 66.7 | 133* [a] | 70-130 |
| 98-82-8 | Isopropylbenzene | 50 | 55.1 | 110 | 70-130 |
| 99-87-6 | p-Isopropyltoluene | 50 | 56.5 | 113 | 70-130 |
| 1634-04-4 | Methyl Tert Butyl Ether | 50 | 48.2 | 96 | 70-130 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 50 | 49.0 | 98 | 70-130 |
| 74-95-3 | Methylene bromide | 50 | 50.1 | 100 | 70-130 |
| 75-09-2 | Methylene chloride | 50 | 48.1 | 96 | 70-130 |
| 91-20-3 | Naphthalene | 50 | 53.8 | 108 | 70-130 |
| 103-65-1 | n-Propylbenzene | 50 | 54.0 | 108 | 70-130 |
| 100-42-5 | Styrene | 50 | 55.3 | 111 | 70-130 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 50 | 57.0 | 114 | 70-130 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 50 | 53.9 | 108 | 70-130 |
| 127-18-4 | Tetrachloroethene | 50 | 54.2 | 108 | 70-130 |
| 108-88-3 | Toluene | 50 | 53.2 | 106 | 70-130 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 50 | 57.3 | 115 | 70-130 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 50 | 47.0 | 94 | 70-130 |
| 71-55-6 | 1,1,1-Trichloroethane | 50 | 53.8 | 108 | 70-130 |
| 79-00-5 | 1,1,2-Trichloroethane | 50 | 51.7 | 103 | 70-130 |
| 79-01-6 | Trichloroethene | 50 | 49.8 | 100 | 70-130 |
| 75-69-4 | Trichlorofluoromethane | 50 | 60.5 | 121 | 70-130 |
| 96-18-4 | 1,2,3-Trichloropropane | 50 | 52.3 | 105 | 70-130 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 50 | 55.0 | 110 | 70-130 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 50 | 55.7 | 111 | 70-130 |
| 108-05-4 | Vinyl Acetate | 50 | 45.9 | 92 | 70-130 |
| 75-01-4 | Vinyl chloride | 50 | 60.1 | 120 | 70-130 |
| | m,p-Xylene | 100 | 107 | 107 | 70-130 |
| 95-47-6 | o-Xylene | 50 | 53.3 | 107 | 70-130 |
| 1330-20-7 | Xylene (total) | 150 | 160 | 107 | 70-130 |

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1121-BS | V29982.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29640-1, MC29640-2, MC29640-3, MC29640-4

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 82% | 70-130% |
| 2037-26-5 | Toluene-D8 | 88% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 91% | 70-130% |

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29634-4MS | V29916.D | 5 | 04/18/14 | AMY | n/a | n/a | MSV1118 |
| MC29634-4MSD | V29917.D | 5 | 04/18/14 | AMY | n/a | n/a | MSV1118 |
| MC29634-4 | V29899.D | 1 | 04/17/14 | AMY | n/a | n/a | MSV1118 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29640-5

| CAS No. | Compound | MC29634-4 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 | 137 | 55* [a] | 250 | 133 | 53* [a] | 3 | 70-130/30 |
| 107-02-8 | Acrolein | ND | | 1250 | 1700 | 136* [b] | 1250 | 1670 | 134* [b] | 2 | 70-130/30 |
| 107-13-1 | Acrylonitrile | ND | | 250 | 210 | 84 | 250 | 211 | 84 | 0 | 70-130/30 |
| 71-43-2 | Benzene | ND | | 250 | 265 | 106 | 250 | 262 | 105 | 1 | 70-130/30 |
| 108-86-1 | Bromobenzene | ND | | 250 | 284 | 114 | 250 | 289 | 116 | 2 | 70-130/30 |
| 74-97-5 | Bromochloromethane | ND | | 250 | 238 | 95 | 250 | 241 | 96 | 1 | 70-130/30 |
| 75-27-4 | Bromodichloromethane | ND | | 250 | 243 | 97 | 250 | 243 | 97 | 0 | 70-130/30 |
| 75-25-2 | Bromoform | ND | | 250 | 210 | 84 | 250 | 216 | 86 | 3 | 70-130/30 |
| 74-83-9 | Bromomethane | ND | | 250 | 257 | 103 | 250 | 246 | 98 | 4 | 70-130/30 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 250 | 200 | 80 | 250 | 188 | 75 | 6 | 70-130/30 |
| 104-51-8 | n-Butylbenzene | ND | | 250 | 297 | 119 | 250 | 297 | 119 | 0 | 70-130/30 |
| 135-98-8 | sec-Butylbenzene | ND | | 250 | 312 | 125 | 250 | 309 | 124 | 1 | 70-130/30 |
| 98-06-6 | tert-Butylbenzene | ND | | 250 | 301 | 120 | 250 | 297 | 119 | 1 | 70-130/30 |
| 75-15-0 | Carbon disulfide | ND | | 250 | 236 | 94 | 250 | 231 | 92 | 2 | 70-130/30 |
| 56-23-5 | Carbon tetrachloride | ND | | 250 | 287 | 115 | 250 | 282 | 113 | 2 | 70-130/30 |
| 108-90-7 | Chlorobenzene | ND | | 250 | 270 | 108 | 250 | 270 | 108 | 0 | 70-130/30 |
| 75-00-3 | Chloroethane | ND | | 250 | 297 | 119 | 250 | 285 | 114 | 4 | 70-130/30 |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | | 250 | ND | 0* [a] | 250 | ND | 0* [a] | nc | 70-130/30 |
| 67-66-3 | Chloroform | ND | | 250 | 238 | 95 | 250 | 232 | 93 | 3 | 70-130/30 |
| 74-87-3 | Chloromethane | ND | | 250 | 276 | 110 | 250 | 265 | 106 | 4 | 70-130/30 |
| 95-49-8 | o-Chlorotoluene | ND | | 250 | 285 | 114 | 250 | 286 | 114 | 0 | 70-130/30 |
| 106-43-4 | p-Chlorotoluene | ND | | 250 | 285 | 114 | 250 | 287 | 115 | 1 | 70-130/30 |
| 124-48-1 | Dibromochloromethane | ND | | 250 | 236 | 94 | 250 | 237 | 95 | 0 | 70-130/30 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 250 | 249 | 100 | 250 | 263 | 105 | 5 | 70-130/30 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 250 | 267 | 107 | 250 | 275 | 110 | 3 | 70-130/30 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 250 | 263 | 105 | 250 | 273 | 109 | 4 | 70-130/30 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 250 | 200 | 80 | 250 | 185 | 74 | 8 | 70-130/30 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 250 | 248 | 99 | 250 | 243 | 97 | 2 | 70-130/30 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 250 | 236 | 94 | 250 | 236 | 94 | 0 | 70-130/30 |
| 75-35-4 | 1,1-Dichloroethene | 1.4 | | 250 | 276 | 110 | 250 | 269 | 107 | 3 | 70-130/30 |
| 156-59-2 | cis-1,2-Dichloroethene | 6.0 | | 250 | 257 | 100 | 250 | 253 | 99 | 2 | 70-130/30 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 250 | 252 | 101 | 250 | 244 | 98 | 3 | 70-130/30 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 250 | 272 | 109 | 250 | 270 | 108 | 1 | 70-130/30 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 250 | 259 | 104 | 250 | 262 | 105 | 1 | 70-130/30 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 250 | 233 | 93 | 250 | 225 | 90 | 3 | 70-130/30 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 250 | 279 | 112 | 250 | 275 | 110 | 1 | 70-130/30 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29634-4MS | V29916.D | 5 | 04/18/14 | AMY | n/a | n/a | MSV1118 |
| MC29634-4MSD | V29917.D | 5 | 04/18/14 | AMY | n/a | n/a | MSV1118 |
| MC29634-4 | V29899.D | 1 | 04/17/14 | AMY | n/a | n/a | MSV1118 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29640-5

| CAS No. | Compound | MC29634-4 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 | 216 | 86 | 250 | 218 | 87 | 1 | 70-130/30 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 250 | 278 | 111 | 250 | 278 | 111 | 0 | 70-130/30 |
| 123-91-1 | 1,4-Dioxane | ND | | 1250 | 1040 | 83 | 1250 | 1040 | 83 | 0 | 70-130/30 |
| 97-63-2 | Ethyl methacrylate | ND | | 250 | 229 | 92 | 250 | 232 | 93 | 1 | 72-139/30 |
| 100-41-4 | Ethylbenzene | ND | | 250 | 298 | 119 | 250 | 295 | 118 | 1 | 70-130/30 |
| 87-68-3 | Hexachlorobutadiene | ND | | 250 | 249 | 100 | 250 | 272 | 109 | 9 | 70-130/30 |
| 591-78-6 | 2-Hexanone | ND | | 250 | 190 | 76 | 250 | 194 | 78 | 2 | 70-130/30 |
| 98-82-8 | Isopropylbenzene | ND | | 250 | 315 | 126 | 250 | 309 | 124 | 2 | 70-130/30 |
| 99-87-6 | p-Isopropyltoluene | ND | | 250 | 310 | 124 | 250 | 308 | 123 | 1 | 70-130/30 |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | | 250 | 228 | 91 | 250 | 228 | 91 | 0 | 70-130/30 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 250 | 219 | 88 | 250 | 223 | 89 | 2 | 70-130/30 |
| 74-95-3 | Methylene bromide | ND | | 250 | 241 | 96 | 250 | 244 | 98 | 1 | 70-130/30 |
| 75-09-2 | Methylene chloride | ND | | 250 | 240 | 96 | 250 | 239 | 96 | 0 | 70-130/30 |
| 91-20-3 | Naphthalene | ND | | 250 | 160 | 64* [a] | 250 | 259 | 104 | 47* [c] | 70-130/30 |
| 103-65-1 | n-Propylbenzene | ND | | 250 | 298 | 119 | 250 | 294 | 118 | 1 | 70-130/30 |
| 100-42-5 | Styrene | ND | | 250 | 288 | 115 | 250 | 289 | 116 | 0 | 70-130/30 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 250 | 295 | 118 | 250 | 295 | 118 | 0 | 70-130/30 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 250 | 265 | 106 | 250 | 277 | 111 | 4 | 70-130/30 |
| 127-18-4 | Tetrachloroethene | ND | | 250 | 301 | 120 | 250 | 297 | 119 | 1 | 70-130/30 |
| 108-88-3 | Toluene | ND | | 250 | 284 | 114 | 250 | 281 | 112 | 1 | 70-130/30 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 250 | 159 | 64* [a] | 250 | 257 | 103 | 47* [c] | 70-130/30 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 250 | 189 | 76 | 250 | 243 | 97 | 25 | 70-130/30 |
| 71-55-6 | 1,1,1-Trichloroethane | 9.0 | | 250 | 275 | 106 | 250 | 266 | 103 | 3 | 70-130/30 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 250 | 257 | 103 | 250 | 254 | 102 | 1 | 70-130/30 |
| 79-01-6 | Trichloroethene | 18.8 | | 250 | 273 | 102 | 250 | 272 | 101 | 0 | 70-130/30 |
| 75-69-4 | Trichlorofluoromethane | ND | | 250 | 265 | 106 | 250 | 251 | 100 | 5 | 70-130/30 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 250 | 252 | 101 | 250 | 257 | 103 | 2 | 70-130/30 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 250 | 300 | 120 | 250 | 299 | 120 | 0 | 70-130/30 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 250 | 308 | 123 | 250 | 306 | 122 | 1 | 70-130/30 |
| 108-05-4 | Vinyl Acetate | ND | | 250 | 220 | 88 | 250 | 219 | 88 | 0 | 70-130/30 |
| 75-01-4 | Vinyl chloride | ND | | 250 | 285 | 114 | 250 | 273 | 109 | 4 | 70-130/30 |
| | m,p-Xylene | ND | | 500 | 595 | 119 | 500 | 589 | 118 | 1 | 70-130/30 |
| 95-47-6 | o-Xylene | ND | | 250 | 295 | 118 | 250 | 294 | 118 | 0 | 70-130/30 |
| 1330-20-7 | Xylene (total) | ND | | 750 | 891 | 119 | 750 | 883 | 118 | 1 | 70-130/30 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29634-4MS | V29916.D | 5 | 04/18/14 | AMY | n/a | n/a | MSV1118 |
| MC29634-4MSD | V29917.D | 5 | 04/18/14 | AMY | n/a | n/a | MSV1118 |
| MC29634-4 | V29899.D | 1 | 04/17/14 | AMY | n/a | n/a | MSV1118 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29640-5

| CAS No. | Surrogate Recoveries | MS | MSD | MC29634-4 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 77% | 76% | 92% | 70-130% |
| 2037-26-5 | Toluene-D8 | 87% | 89% | 88% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 90% | 91% | 92% | 70-130% |

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(b) Outside control limits. Blank Spike meets program technical requirements.
(c) High RPD due to possible matrix interference and/or sample non-homogeneity.

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29640-1MS | V30006.D | 5 | 04/19/14 | AMY | n/a | n/a | MSV1121 |
| MC29640-1MSD | V30007.D | 5 | 04/19/14 | AMY | n/a | n/a | MSV1121 |
| MC29640-1 | V29988.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29640-1, MC29640-2, MC29640-3, MC29640-4

| CAS No. | Compound | MC29640-1 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 | 185 | 74 | 250 | 207 | 83 | 11 | 70-130/30 |
| 107-02-8 | Acrolein | ND | | 1250 | 1860 | 149* a | 1250 | 1890 | 151* a | 2 | 70-130/30 |
| 107-13-1 | Acrylonitrile | ND | | 250 | 222 | 89 | 250 | 220 | 88 | 1 | 70-130/30 |
| 71-43-2 | Benzene | 0.34 | J | 250 | 241 | 96 | 250 | 244 | 97 | 1 | 70-130/30 |
| 108-86-1 | Bromobenzene | ND | | 250 | 255 | 102 | 250 | 262 | 105 | 3 | 70-130/30 |
| 74-97-5 | Bromochloromethane | ND | | 250 | 231 | 92 | 250 | 233 | 93 | 1 | 70-130/30 |
| 75-27-4 | Bromodichloromethane | ND | | 250 | 225 | 90 | 250 | 226 | 90 | 0 | 70-130/30 |
| 75-25-2 | Bromoform | ND | | 250 | 205 | 82 | 250 | 200 | 80 | 2 | 70-130/30 |
| 74-83-9 | Bromomethane | ND | | 250 | 234 | 94 | 250 | 236 | 94 | 1 | 70-130/30 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 250 | 182 | 73 | 250 | 183 | 73 | 1 | 70-130/30 |
| 104-51-8 | n-Butylbenzene | ND | | 250 | 249 | 100 | 250 | 255 | 102 | 2 | 70-130/30 |
| 135-98-8 | sec-Butylbenzene | ND | | 250 | 256 | 102 | 250 | 267 | 107 | 4 | 70-130/30 |
| 98-06-6 | tert-Butylbenzene | ND | | 250 | 245 | 98 | 250 | 254 | 102 | 4 | 70-130/30 |
| 75-15-0 | Carbon disulfide | ND | | 250 | 218 | 87 | 250 | 219 | 88 | 0 | 70-130/30 |
| 56-23-5 | Carbon tetrachloride | ND | | 250 | 238 | 95 | 250 | 240 | 96 | 1 | 70-130/30 |
| 108-90-7 | Chlorobenzene | ND | | 250 | 248 | 99 | 250 | 248 | 99 | 0 | 70-130/30 |
| 75-00-3 | Chloroethane | ND | | 250 | 282 | 113 | 250 | 281 | 112 | 0 | 70-130/30 |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | | 250 | ND | 0* a | 250 | ND | 0* a | nc | 70-130/30 |
| 67-66-3 | Chloroform | ND | | 250 | 218 | 87 | 250 | 221 | 88 | 1 | 70-130/30 |
| 74-87-3 | Chloromethane | ND | | 250 | 242 | 97 | 250 | 242 | 97 | 0 | 70-130/30 |
| 95-49-8 | o-Chlorotoluene | ND | | 250 | 244 | 98 | 250 | 250 | 100 | 2 | 70-130/30 |
| 106-43-4 | p-Chlorotoluene | ND | | 250 | 248 | 99 | 250 | 253 | 101 | 2 | 70-130/30 |
| 124-48-1 | Dibromochloromethane | ND | | 250 | 227 | 91 | 250 | 222 | 89 | 2 | 70-130/30 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 250 | 226 | 90 | 250 | 239 | 96 | 6 | 70-130/30 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 250 | 239 | 96 | 250 | 245 | 98 | 2 | 70-130/30 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 250 | 239 | 96 | 250 | 247 | 99 | 3 | 70-130/30 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 250 | 160 | 64* a | 250 | 160 | 64* a | 0 | 70-130/30 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 250 | 230 | 92 | 250 | 234 | 94 | 2 | 70-130/30 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 250 | 219 | 88 | 250 | 218 | 87 | 0 | 70-130/30 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 250 | 245 | 98 | 250 | 249 | 100 | 2 | 70-130/30 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 250 | 236 | 94 | 250 | 238 | 95 | 1 | 70-130/30 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 250 | 233 | 93 | 250 | 235 | 94 | 1 | 70-130/30 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 250 | 253 | 101 | 250 | 256 | 102 | 1 | 70-130/30 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 250 | 250 | 100 | 250 | 246 | 98 | 2 | 70-130/30 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 250 | 188 | 75 | 250 | 188 | 75 | 0 | 70-130/30 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 250 | 243 | 97 | 250 | 244 | 98 | 0 | 70-130/30 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29640-1MS | V30006.D | 5 | 04/19/14 | AMY | n/a | n/a | MSV1121 |
| MC29640-1MSD | V30007.D | 5 | 04/19/14 | AMY | n/a | n/a | MSV1121 |
| MC29640-1 | V29988.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29640-1, MC29640-2, MC29640-3, MC29640-4

| CAS No. | Compound | MC29640-1 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 | 205 | 82 | 250 | 205 | 82 | 0 | 70-130/30 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 250 | 268 | 107 | 250 | 267 | 107 | 0 | 70-130/30 |
| 123-91-1 | 1,4-Dioxane | ND | | 1250 | 802 | 64* [a] | 1250 | 958 | 77 | 18 | 70-130/30 |
| 97-63-2 | Ethyl methacrylate | ND | | 250 | 232 | 93 | 250 | 225 | 90 | 3 | 72-139/30 |
| 100-41-4 | Ethylbenzene | ND | | 250 | 265 | 106 | 250 | 264 | 106 | 0 | 70-130/30 |
| 87-68-3 | Hexachlorobutadiene | ND | | 250 | 207 | 83 | 250 | 236 | 94 | 13 | 70-130/30 |
| 591-78-6 | 2-Hexanone | ND | | 250 | 197 | 79 | 250 | 191 | 76 | 3 | 70-130/30 |
| 98-82-8 | Isopropylbenzene | ND | | 250 | 260 | 104 | 250 | 268 | 107 | 3 | 70-130/30 |
| 99-87-6 | p-Isopropyltoluene | ND | | 250 | 258 | 103 | 250 | 267 | 107 | 3 | 70-130/30 |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | | 250 | 229 | 92 | 250 | 227 | 91 | 1 | 70-130/30 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 250 | 223 | 89 | 250 | 218 | 87 | 2 | 70-130/30 |
| 74-95-3 | Methylene bromide | ND | | 250 | 232 | 93 | 250 | 233 | 93 | 0 | 70-130/30 |
| 75-09-2 | Methylene chloride | ND | | 250 | 233 | 93 | 250 | 233 | 93 | 0 | 70-130/30 |
| 91-20-3 | Naphthalene | ND | | 250 | 156 | 62* [a] | 250 | 251 | 100 | 47* [b] | 70-130/30 |
| 103-65-1 | n-Propylbenzene | ND | | 250 | 251 | 100 | 250 | 256 | 102 | 2 | 70-130/30 |
| 100-42-5 | Styrene | ND | | 250 | 267 | 107 | 250 | 267 | 107 | 0 | 70-130/30 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 250 | 266 | 106 | 250 | 266 | 106 | 0 | 70-130/30 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 250 | 256 | 102 | 250 | 266 | 106 | 4 | 70-130/30 |
| 127-18-4 | Tetrachloroethene | ND | | 250 | 256 | 102 | 250 | 256 | 102 | 0 | 70-130/30 |
| 108-88-3 | Toluene | ND | | 250 | 259 | 104 | 250 | 260 | 104 | 0 | 70-130/30 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 250 | 161 | 64* [a] | 250 | 251 | 100 | 44* [b] | 70-130/30 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 250 | 177 | 71 | 250 | 222 | 89 | 23 | 70-130/30 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 250 | 230 | 92 | 250 | 231 | 92 | 0 | 70-130/30 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 250 | 249 | 100 | 250 | 249 | 100 | 0 | 70-130/30 |
| 79-01-6 | Trichloroethene | ND | | 250 | 232 | 93 | 250 | 234 | 94 | 1 | 70-130/30 |
| 75-69-4 | Trichlorofluoromethane | ND | | 250 | 225 | 90 | 250 | 225 | 90 | 0 | 70-130/30 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 250 | 228 | 91 | 250 | 230 | 92 | 1 | 70-130/30 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 250 | 255 | 102 | 250 | 263 | 105 | 3 | 70-130/30 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 250 | 257 | 103 | 250 | 266 | 106 | 3 | 70-130/30 |
| 108-05-4 | Vinyl Acetate | ND | | 250 | 214 | 86 | 250 | 214 | 86 | 0 | 70-130/30 |
| 75-01-4 | Vinyl chloride | ND | | 250 | 259 | 104 | 250 | 260 | 104 | 0 | 70-130/30 |
| | m,p-Xylene | ND | | 500 | 531 | 106 | 500 | 531 | 106 | 0 | 70-130/30 |
| 95-47-6 | o-Xylene | ND | | 250 | 261 | 104 | 250 | 263 | 105 | 1 | 70-130/30 |
| 1330-20-7 | Xylene (total) | ND | | 750 | 793 | 106 | 750 | 794 | 106 | 0 | 70-130/30 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29640-1MS | V30006.D | 5 | 04/19/14 | AMY | n/a | n/a | MSV1121 |
| MC29640-1MSD | V30007.D | 5 | 04/19/14 | AMY | n/a | n/a | MSV1121 |
| MC29640-1 | V29988.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29640-1, MC29640-2, MC29640-3, MC29640-4

| CAS No. | Surrogate Recoveries | MS | MSD | MC29640-1 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 79% | 79% | 98% | 70-130% |
| 2037-26-5 | Toluene-D8 | 88% | 88% | 87% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 91% | 90% | 89% | 70-130% |

(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.

# Volatile Internal Standard Area Summary



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSV1118-CC1058 | **Injection Date:** | 04/17/14 |
| **Lab File ID:** | V29893.D | **Injection Time:** | 14:06 |
| **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 | 342728 | 6.50 | 457521 | 7.69 | 213386 | 11.04 | 213403 | 13.26 | 43303 | 3.45 |
| Upper Limit [a] | 685456 | 7.00 | 915042 | 8.19 | 426772 | 11.54 | 426806 | 13.76 | 86606 | 3.95 |
| Lower Limit [b] | 171364 | 6.00 | 228761 | 7.19 | 106693 | 10.54 | 106702 | 12.76 | 21652 | 2.95 |

| Lab Sample ID | IS 1 AREA | RT | IS 2 AREA | RT | IS 3 AREA | RT | IS 4 AREA | RT | IS 5 AREA | RT |
|---|---|---|---|---|---|---|---|---|---|---|
| MSV1118-BS | 342728 | 6.50 | 457521 | 7.69 | 213386 | 11.04 | 213403 | 13.26 | 43303 | 3.45 |
| MSV1118-MB | 262591 | 6.50 | 360986 | 7.69 | 175492 | 11.04 | 161331 | 13.26 | 33543 | 3.45 |
| MC29640-5 | 311005 | 6.49 | 443783 | 7.68 | 217448 | 11.04 | 195823 | 13.26 | 37787 | 3.45 |
| ZZZZZZ | 342267 | 6.50 | 432940 | 7.69 | 163790 | 11.04 | 153378 | 13.26 | 39019 | 3.45 |
| MC29634-4 | 238900 | 6.50 | 320025 | 7.69 | 159681 | 11.05 | 155661 | 13.26 | 33881 | 3.46 |
| ZZZZZZ | 211870 | 6.49 | 297187 | 7.69 | 145549 | 11.04 | 135736 | 13.26 | 26343 | 3.45 |
| ZZZZZZ | 202910 | 6.49 | 276001 | 7.69 | 139502 | 11.04 | 128288 | 13.26 | 24418 | 3.44 |
| ZZZZZZ | 192401 | 6.49 | 270078 | 7.69 | 137705 | 11.04 | 126710 | 13.26 | 25164 | 3.45 |
| ZZZZZZ | 237806 | 6.50 | 292266 | 7.69 | 151004 | 11.05 | 141450 | 13.26 | 30278 | 3.46 |
| ZZZZZZ | 201710 | 6.49 | 283556 | 7.69 | 143626 | 11.04 | 134381 | 13.26 | 29404 | 3.45 |
| ZZZZZZ | 199874 | 6.50 | 273405 | 7.69 | 138910 | 11.04 | 126444 | 13.26 | 28228 | 3.45 |
| ZZZZZZ | 204485 | 6.50 | 281432 | 7.69 | 145035 | 11.05 | 135697 | 13.26 | 30464 | 3.46 |
| ZZZZZZ | 189906 | 6.50 | 266488 | 7.69 | 137132 | 11.04 | 129077 | 13.26 | 28818 | 3.45 |
| ZZZZZZ | 188998 | 6.49 | 256077 | 7.69 | 132363 | 11.04 | 122185 | 13.26 | 28155 | 3.45 |
| ZZZZZZ | 181983 | 6.50 | 253904 | 7.69 | 130367 | 11.04 | 122959 | 13.26 | 27973 | 3.46 |
| ZZZZZZ | 257985 | 6.49 | 361530 | 7.69 | 198023 | 11.04 | 221431 | 13.26 | 31303 | 3.45 |
| ZZZZZZ | 515715 | 6.50 | 742966 | 7.70 | 343498 | 11.05 | 513872[c] | 13.26 | 322608[c] | 3.50 |
| MC29634-4MS | 443891 | 6.50 | 600401 | 7.69 | 273773 | 11.05 | 276912 | 13.26 | 55439 | 3.46 |
| MC29634-4MSD | 456381 | 6.50 | 608671 | 7.69 | 278258 | 11.05 | 280544 | 13.26 | 59262 | 3.46 |
| ZZZZZZ | 401644 | 6.51 | 546696 | 7.70 | 252972 | 11.05 | 258563 | 13.27 | 53979 | 3.46 |

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.

# Volatile Internal Standard Area Summary



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSV1121-CC1058 | **Injection Date:** | 04/19/14 |
| **Lab File ID:** | V29981.D | **Injection Time:** | 08:18 |
| **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 | 303408 | 6.54 | 403111 | 7.72 | 192622 | 11.07 | 204497 | 13.28 | 45385 | 3.49 |
| Upper Limit [a] | 606816 | 7.04 | 806222 | 8.22 | 385244 | 11.57 | 408994 | 13.78 | 90770 | 3.99 |
| Lower Limit [b] | 151704 | 6.04 | 201556 | 7.22 | 96311 | 10.57 | 102249 | 12.78 | 22693 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| MSV1121-BS | 297302 | 6.53 | 397730 | 7.72 | 189553 | 11.07 | 199177 | 13.28 | 44281 | 3.48 |
| MSV1121-MB | 234115 | 6.54 | 333256 | 7.72 | 169551 | 11.07 | 162070 | 13.28 | 34600 | 3.49 |
| ZZZZZZ | 207308 | 6.54 | 295276 | 7.72 | 150238 | 11.07 | 143416 | 13.28 | 30387 | 3.48 |
| ZZZZZZ | 192458 | 6.53 | 274580 | 7.72 | 139981 | 11.07 | 133045 | 13.28 | 32995 | 3.48 |
| MC29640-1 | 198583 | 6.53 | 283208 | 7.72 | 144102 | 11.07 | 140364 | 13.28 | 33711 | 3.48 |
| MC29640-2 | 181600 | 6.53 | 260775 | 7.72 | 136614 | 11.07 | 132852 | 13.28 | 30345 | 3.48 |
| MC29640-3 | 180258 | 6.53 | 258841 | 7.72 | 134167 | 11.07 | 126262 | 13.28 | 30040 | 3.48 |
| MC29640-4 | 235988 | 6.53 | 290904 | 7.72 | 148625 | 11.07 | 142075 | 13.28 | 40896 | 3.49 |
| ZZZZZZ | 217533 | 6.53 | 281991 | 7.72 | 144893 | 11.07 | 140975 | 13.28 | 40988 | 3.48 |
| ZZZZZZ | 240601 | 6.53 | 299561 | 7.72 | 145307 | 11.07 | 147815 | 13.28 | 67573 | 3.48 |
| ZZZZZZ | 257322 | 6.54 | 315566 | 7.72 | 168172 | 11.07 | 166111 | 13.28 | 49190 | 3.49 |
| ZZZZZZ | 325444 | 6.54 | 437917 | 7.72 | 214625 | 11.07 | 209094 | 13.28 | 117146[c] | 3.51 |
| ZZZZZZ | 377310 | 6.54 | 577770 | 7.73 | 274416 | 11.07 | 325618 | 13.28 | 136812[c] | 3.51 |
| ZZZZZZ | 450636 | 6.54 | 693943 | 7.73 | 326250 | 11.07 | 379848 | 13.28 | 161653[c] | 3.51 |
| ZZZZZZ | 314296 | 6.53 | 447566 | 7.72 | 206872 | 11.07 | 207372 | 13.28 | 52756 | 3.48 |
| ZZZZZZ | 357126 | 6.53 | 488523 | 7.72 | 237912 | 11.06 | 237896 | 13.28 | 65954 | 3.49 |
| ZZZZZZ | 405848 | 6.53 | 555886 | 7.72 | 248663 | 11.06 | 243739 | 13.28 | 90315 | 3.50 |
| ZZZZZZ | 336958 | 6.53 | 464213 | 7.71 | 216490 | 11.06 | 226853 | 13.28 | 47274 | 3.48 |
| MC29640-1MS | 386838 | 6.53 | 527120 | 7.72 | 243278 | 11.06 | 256191 | 13.28 | 55439 | 3.48 |
| MC29640-1MSD | 381357 | 6.53 | 518387 | 7.72 | 239500 | 11.06 | 245390 | 13.28 | 51334 | 3.48 |

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 Surrogate Recovery Summary



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 |
|---|---|---|---|---|
| MC29640-1 | V29988.D | 98 | 87 | 89 |
| MC29640-2 | V29989.D | 101 | 89 | 92 |
| MC29640-3 | V29990.D | 100 | 88 | 93 |
| MC29640-4 | V29991.D | 81 | 89 | 92 |
| MC29640-5 | V29897.D | 90 | 89 | 93 |
| MC29634-4MS | V29916.D | 77 | 87 | 90 |
| MC29634-4MSD | V29917.D | 76 | 89 | 91 |
| MC29640-1MS | V30006.D | 79 | 88 | 91 |
| MC29640-1MSD | V30007.D | 79 | 88 | 90 |
| MSV1118-BS | V29893.D | 82 | 88 | 94 |
| MSV1118-MB | V29896.D | 90 | 85 | 92 |
| MSV1121-BS | V29982.D | 82 | 88 | 91 |
| MSV1121-MB | V29985.D | 93 | 88 | 92 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = Dibromofluoromethane | 70-130% |
| S2 = Toluene-D8 | 70-130% |
| S3 = 4-Bromofluorobenzene | 70-130% |

## GC/MS Semi-volatiles

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# 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:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37547-MB | R38067.D | 1 | 04/11/14 | KR | 04/10/14 | OP37547 | MSR1404 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29640-1, MC29640-2, MC29640-3, MC29640-4



| 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 | 0.31 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 10 | 0.83 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 10 | 0.40 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 10 | 0.56 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 20 | 2.5 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 10 | 0.23 | ug/l | |
| | 3&4-Methylphenol | ND | 10 | 0.47 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 10 | 2.9 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 20 | 0.53 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 10 | 1.1 | ug/l | |
| 108-95-2 | Phenol | ND | 5.0 | 0.30 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 10 | 0.37 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 10 | 0.18 | ug/l | |
| 62-53-3 | Aniline | ND | 10 | 0.64 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.0 | 0.47 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.0 | 0.53 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 10 | 2.3 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.0 | 0.31 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 10 | 0.56 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.0 | 0.29 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.0 | 0.35 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.0 | 0.33 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.0 | 0.25 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.0 | 0.24 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 10 | 0.46 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 10 | 0.30 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.0 | 0.27 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.0 | 0.26 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.50 | 5.0 | 0.17 | ug/l | J |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.0 | 0.28 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.0 | 0.20 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.0 | 0.34 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.0 | 0.33 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.0 | 0.29 | ug/l | |

# Method Blank Summary

**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37547-MB | R38067.D | 1 | 04/11/14 | KR | 04/10/14 | OP37547 | MSR1404 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29640-1, MC29640-2, MC29640-3, MC29640-4

| 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 | 0.30 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.0 | 0.45 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 0.40 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 1.4 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 2.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.0 | 0.39 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.0 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.0 | 0.40 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.0 | 0.19 | ug/l | |
| 110-86-1 | Pyridine | ND | 10 | 0.52 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 48% | 15-110% |
| 4165-62-2 | Phenol-d5 | 31% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 73% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 84% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 70% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 66% | 30-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile | | 0 | ug/l | |

# Method Blank Summary



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37548-MB | I88483.D | 1 | 04/11/14 | MR | 04/10/14 | OP37548 | MSI3295 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D BY SIM

MC29640-1, MC29640-2, MC29640-3, MC29640-4



| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | ND | 0.10 | 0.069 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.10 | 0.050 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.10 | 0.092 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.050 | 0.020 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.10 | 0.029 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.050 | 0.032 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.10 | 0.027 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.10 | 0.039 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.10 | 0.024 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.10 | 0.032 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.10 | 0.041 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.10 | 0.099 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.10 | 0.031 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.20 | 0.050 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.20 | 0.074 | ug/l | |
| 85-01-8 | Phenanthrene | 0.019 | 0.050 | 0.013 | ug/l | J |
| 129-00-0 | Pyrene | ND | 0.10 | 0.038 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 41% | 15-110% |
| 4165-62-2 | Phenol-d5 | 28% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 77% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 71% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 69% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 89% | 30-130% |

# Blank Spike Summary



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37547-BS | R38068.D | 1 | 04/11/14 | KR | 04/10/14 | OP37547 | MSR1404 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29640-1, MC29640-2, MC29640-3, MC29640-4

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | 50 | 15.5 | 31 | 30-130 |
| 95-57-8 | 2-Chlorophenol | 50 | 36.7 | 73 | 30-130 |
| 59-50-7 | 4-Chloro-3-methyl phenol | 50 | 37.0 | 74 | 30-130 |
| 120-83-2 | 2,4-Dichlorophenol | 50 | 38.9 | 78 | 30-130 |
| 105-67-9 | 2,4-Dimethylphenol | 50 | 33.1 | 66 | 30-130 |
| 51-28-5 | 2,4-Dinitrophenol | 50 | 33.7 | 67 | 30-130 |
| 534-52-1 | 4,6-Dinitro-o-cresol | 50 | 44.9 | 90 | 30-130 |
| 95-48-7 | 2-Methylphenol | 50 | 32.6 | 65 | 30-130 |
| | 3&4-Methylphenol | 100 | 59.7 | 60 | 30-130 |
| 88-75-5 | 2-Nitrophenol | 50 | 38.5 | 77 | 30-130 |
| 100-02-7 | 4-Nitrophenol | 50 | 15.6 | 31 | 30-130 |
| 87-86-5 | Pentachlorophenol | 50 | 36.1 | 72 | 30-130 |
| 108-95-2 | Phenol | 50 | 16.2 | 32 | 30-130 |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | 40.4 | 81 | 30-130 |
| 88-06-2 | 2,4,6-Trichlorophenol | 50 | 40.3 | 81 | 30-130 |
| 62-53-3 | Aniline | 50 | 25.8 | 52 | 40-140 |
| 101-55-3 | 4-Bromophenyl phenyl ether | 50 | 41.5 | 83 | 40-140 |
| 85-68-7 | Butyl benzyl phthalate | 50 | 48.0 | 96 | 40-140 |
| 100-51-6 | Benzyl Alcohol | 50 | 30.7 | 61 | 40-140 |
| 91-58-7 | 2-Chloronaphthalene | 50 | 40.0 | 80 | 40-140 |
| 106-47-8 | 4-Chloroaniline | 50 | 34.2 | 68 | 40-140 |
| 111-91-1 | bis(2-Chloroethoxy)methane | 50 | 39.0 | 78 | 40-140 |
| 111-44-4 | bis(2-Chloroethyl)ether | 50 | 39.7 | 79 | 40-140 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 50 | 48.3 | 97 | 40-140 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 50 | 39.9 | 80 | 40-140 |
| 122-66-7 | 1,2-Diphenylhydrazine | 50 | 41.7 | 83 | 40-140 |
| 121-14-2 | 2,4-Dinitrotoluene | 50 | 41.5 | 83 | 40-140 |
| 606-20-2 | 2,6-Dinitrotoluene | 50 | 39.6 | 79 | 40-140 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 50 | 41.3 | 83 | 40-140 |
| 132-64-9 | Dibenzofuran | 50 | 37.8 | 76 | 40-140 |
| 84-74-2 | Di-n-butyl phthalate | 50 | 41.2 | 82 | 40-140 |
| 117-84-0 | Di-n-octyl phthalate | 50 | 67.8 | 136 | 40-140 |
| 84-66-2 | Diethyl phthalate | 50 | 39.0 | 78 | 40-140 |
| 131-11-3 | Dimethyl phthalate | 50 | 30.2 | 60 | 40-140 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 50 | 48.0 | 96 | 40-140 |
| 118-74-1 | Hexachlorobenzene | 50 | 41.0 | 82 | 40-140 |

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37547-BS | R38068.D | 1 | 04/11/14 | KR | 04/10/14 | OP37547 | MSR1404 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29640-1, MC29640-2, MC29640-3, MC29640-4

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 77-47-4 | Hexachlorocyclopentadiene | 50 | 23.0 | 46 | 40-140 |
| 67-72-1 | Hexachloroethane | 50 | 27.1 | 54 | 40-140 |
| 78-59-1 | Isophorone | 50 | 36.6 | 73 | 40-140 |
| 88-74-4 | 2-Nitroaniline | 50 | 40.3 | 81 | 40-140 |
| 99-09-2 | 3-Nitroaniline | 50 | 35.8 | 72 | 40-140 |
| 100-01-6 | 4-Nitroaniline | 50 | 37.1 | 74 | 40-140 |
| 98-95-3 | Nitrobenzene | 50 | 38.0 | 76 | 40-140 |
| 62-75-9 | n-Nitrosodimethylamine | 50 | 24.5 | 49 | 40-140 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 50 | 40.1 | 80 | 40-140 |
| 86-30-6 | N-Nitrosodiphenylamine | 50 | 39.8 | 80 | 40-140 |
| 110-86-1 | Pyridine | 50 | 19.9 | 40 | 40-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 46% | 15-110% |
| 4165-62-2 | Phenol-d5 | 30% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 75% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 72% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 72% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 86% | 30-130% |

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37548-BS | I88484.D | 1 | 04/11/14 | MR | 04/10/14 | OP37548 | MSI3295 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D BY SIM

MC29640-1, MC29640-2, MC29640-3, MC29640-4



| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 50 | 35.1 | 70 | 40-140 |
| 208-96-8 | Acenaphthylene | 50 | 32.6 | 65 | 40-140 |
| 120-12-7 | Anthracene | 50 | 35.1 | 70 | 40-140 |
| 56-55-3 | Benzo(a)anthracene | 50 | 39.3 | 79 | 40-140 |
| 50-32-8 | Benzo(a)pyrene | 50 | 38.0 | 76 | 40-140 |
| 205-99-2 | Benzo(b)fluoranthene | 50 | 39.8 | 80 | 40-140 |
| 191-24-2 | Benzo(g,h,i)perylene | 50 | 43.0 | 86 | 40-140 |
| 207-08-9 | Benzo(k)fluoranthene | 50 | 40.4 | 81 | 40-140 |
| 218-01-9 | Chrysene | 50 | 37.5 | 75 | 40-140 |
| 53-70-3 | Dibenzo(a,h)anthracene | 50 | 45.8 | 92 | 40-140 |
| 206-44-0 | Fluoranthene | 50 | 38.6 | 77 | 40-140 |
| 86-73-7 | Fluorene | 50 | 36.4 | 73 | 40-140 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 50 | 44.2 | 88 | 40-140 |
| 90-12-0 | 1-Methylnaphthalene | 50 | 32.0 | 64 | 40-140 |
| 91-57-6 | 2-Methylnaphthalene | 50 | 31.5 | 63 | 40-140 |
| 85-01-8 | Phenanthrene | 50 | 35.4 | 71 | 40-140 |
| 129-00-0 | Pyrene | 50 | 38.5 | 77 | 40-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 38% | 15-110% |
| 4165-62-2 | Phenol-d5 | 25% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 78% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 68% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 66% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 86% | 30-130% |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: MC29640
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37547-MS | R38070.D | 1 | 04/11/14 | KR | 04/10/14 | OP37547 | MSR1404 |
| OP37547-MSD | R38071.D | 1 | 04/11/14 | KR | 04/10/14 | OP37547 | MSR1404 |
| MC29300-18 | R38072.D | 1 | 04/11/14 | KR | 04/10/14 | OP37547 | MSR1404 |

The QC reported here applies to the following samples: Method: SW846 8270D

MC29640-1, MC29640-2, MC29640-3, MC29640-4



| CAS No. | Compound | MC29300-18 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 | 16.3 | 33 | 50 | 15.9 | 32 | 2 | 30-130/20 |
| 95-57-8 | 2-Chlorophenol | ND | | 50 | 36.6 | 73 | 50 | 33.5 | 67 | 9 | 30-130/20 |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | | 50 | 36.6 | 73 | 50 | 33.7 | 67 | 8 | 30-130/20 |
| 120-83-2 | 2,4-Dichlorophenol | ND | | 50 | 38.4 | 77 | 50 | 43.3 | 87 | 12 | 30-130/20 |
| 105-67-9 | 2,4-Dimethylphenol | ND | | 50 | 33.5 | 67 | 50 | 33.6 | 67 | 0 | 30-130/20 |
| 51-28-5 | 2,4-Dinitrophenol | ND | | 50 | 34.6 | 69 | 50 | 33.8 | 68 | 2 | 30-130/20 |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | | 50 | 46.2 | 92 | 50 | 42.5 | 85 | 8 | 30-130/20 |
| 95-48-7 | 2-Methylphenol | ND | | 50 | 32.2 | 64 | 50 | 32.8 | 66 | 2 | 30-130/20 |
| | 3&4-Methylphenol | ND | | 100 | 60.2 | 60 | 100 | 57.4 | 57 | 5 | 30-130/20 |
| 88-75-5 | 2-Nitrophenol | ND | | 50 | 37.8 | 76 | 50 | 39.1 | 78 | 3 | 30-130/20 |
| 100-02-7 | 4-Nitrophenol | ND | | 50 | 16.0 | 32 | 50 | 14.9 | 30 | 7 | 30-130/20 |
| 87-86-5 | Pentachlorophenol | ND | | 50 | 37.7 | 75 | 50 | 35.3 | 71 | 7 | 30-130/20 |
| 108-95-2 | Phenol | ND | | 50 | 16.4 | 33 | 50 | 15.1 | 30 | 8 | 30-130/20 |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | | 50 | 40.2 | 80 | 50 | 49.0 | 98 | 20 | 30-130/20 |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | | 50 | 39.7 | 79 | 50 | 48.9 | 98 | 21* [a] | 30-130/20 |
| 62-53-3 | Aniline | ND | | 50 | 25.6 | 51 | 50 | 24.6 | 49 | 4 | 40-140/20 |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | | 50 | 41.4 | 83 | 50 | 48.6 | 97 | 16 | 40-140/20 |
| 85-68-7 | Butyl benzyl phthalate | ND | | 50 | 47.7 | 95 | 50 | 41.2 | 82 | 15 | 40-140/20 |
| 100-51-6 | Benzyl Alcohol | ND | | 50 | 30.4 | 61 | 50 | 29.5 | 59 | 3 | 40-140/20 |
| 91-58-7 | 2-Chloronaphthalene | ND | | 50 | 40.2 | 80 | 50 | 46.0 | 92 | 13 | 40-140/20 |
| 106-47-8 | 4-Chloroaniline | ND | | 50 | 33.5 | 67 | 50 | 38.3 | 77 | 13 | 40-140/20 |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | | 50 | 37.9 | 76 | 50 | 35.0 | 70 | 8 | 40-140/20 |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | | 50 | 39.2 | 78 | 50 | 36.3 | 73 | 8 | 40-140/20 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | | 50 | 47.7 | 95 | 50 | 44.8 | 90 | 6 | 40-140/20 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | | 50 | 39.4 | 79 | 50 | 47.4 | 95 | 18 | 40-140/20 |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | | 50 | 40.5 | 81 | 50 | 48.6 | 97 | 18 | 40-140/20 |
| 121-14-2 | 2,4-Dinitrotoluene | ND | | 50 | 41.8 | 84 | 50 | 39.9 | 80 | 5 | 40-140/20 |
| 606-20-2 | 2,6-Dinitrotoluene | ND | | 50 | 39.9 | 80 | 50 | 37.9 | 76 | 5 | 40-140/20 |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | | 50 | 40.2 | 80 | 50 | 45.4 | 91 | 12 | 40-140/20 |
| 132-64-9 | Dibenzofuran | ND | | 50 | 37.6 | 75 | 50 | 35.8 | 72 | 5 | 40-140/20 |
| 84-74-2 | Di-n-butyl phthalate | 0.34 | J | 50 | 42.0 | 83 | 50 | 41.8 | 83 | 0 | 40-140/20 |
| 117-84-0 | Di-n-octyl phthalate | ND | | 50 | 51.6 | 103 | 50 | 42.6 | 85 | 19 | 40-140/20 |
| 84-66-2 | Diethyl phthalate | ND | | 50 | 41.5 | 83 | 50 | 39.4 | 79 | 5 | 40-140/20 |
| 131-11-3 | Dimethyl phthalate | ND | | 50 | 35.9 | 72 | 50 | 33.3 | 67 | 8 | 40-140/20 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | | 50 | 47.5 | 95 | 50 | 48.6 | 97 | 2 | 40-140/20 |
| 118-74-1 | Hexachlorobenzene | ND | | 50 | 40.9 | 82 | 50 | 46.0 | 92 | 12 | 40-140/20 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37547-MS | R38070.D | 1 | 04/11/14 | KR | 04/10/14 | OP37547 | MSR1404 |
| OP37547-MSD | R38071.D | 1 | 04/11/14 | KR | 04/10/14 | OP37547 | MSR1404 |
| MC29300-18 | R38072.D | 1 | 04/11/14 | KR | 04/10/14 | OP37547 | MSR1404 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29640-1, MC29640-2, MC29640-3, MC29640-4



| CAS No. | Compound | MC29300-18 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 | 24.5 | 49 | 50 | 23.8 | 48 | 3 | 40-140/20 |
| 67-72-1 | Hexachloroethane | ND | | 50 | 29.7 | 59 | 50 | 27.3 | 55 | 8 | 40-140/20 |
| 78-59-1 | Isophorone | ND | | 50 | 35.8 | 72 | 50 | 39.2 | 78 | 9 | 40-140/20 |
| 88-74-4 | 2-Nitroaniline | ND | | 50 | 39.8 | 80 | 50 | 40.9 | 82 | 3 | 40-140/20 |
| 99-09-2 | 3-Nitroaniline | ND | | 50 | 35.9 | 72 | 50 | 34.8 | 70 | 3 | 40-140/20 |
| 100-01-6 | 4-Nitroaniline | ND | | 50 | 37.5 | 75 | 50 | 42.0 | 84 | 11 | 40-140/20 |
| 98-95-3 | Nitrobenzene | ND | | 50 | 36.8 | 74 | 50 | 42.5 | 85 | 14 | 40-140/20 |
| 62-75-9 | n-Nitrosodimethylamine | ND | | 50 | 23.7 | 47 | 50 | 24.0 | 48 | 1 | 40-140/20 |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | | 50 | 39.0 | 78 | 50 | 36.4 | 73 | 7 | 40-140/20 |
| 86-30-6 | N-Nitrosodiphenylamine | ND | | 50 | 39.8 | 80 | 50 | 48.0 | 96 | 19 | 40-140/20 |
| 110-86-1 | Pyridine | ND | | 50 | 19.6 | 39* [b] | 50 | 19.7 | 39* [b] | 1 | 40-140/20 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29300-18 | Limits |
|---|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 46% | 44% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 30% | 28% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 74% | 89% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 70% | 81% | 63% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 72% | 85% | 66% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 83% | 76% | 65% | 30-130% |

(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:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37548-MS | I88485.D | 1 | 04/11/14 | MR | 04/10/14 | OP37548 | MSI3295 |
| OP37548-MSD | I88486.D | 1 | 04/11/14 | MR | 04/10/14 | OP37548 | MSI3295 |
| MC29300-21 | I88487.D | 1 | 04/11/14 | MR | 04/10/14 | OP37548 | MSI3295 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D BY SIM

MC29640-1, MC29640-2, MC29640-3, MC29640-4



| CAS No. | Compound | MC29300-21 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 | 35.0 | 70 | 50 | 32.8 | 66 | 6 | 40-140/20 |
| 208-96-8 | Acenaphthylene | ND | | 50 | 32.3 | 65 | 50 | 30.3 | 61 | 6 | 40-140/20 |
| 120-12-7 | Anthracene | ND | | 50 | 33.6 | 67 | 50 | 33.4 | 67 | 1 | 40-140/20 |
| 56-55-3 | Benzo(a)anthracene | ND | | 50 | 39.2 | 78 | 50 | 38.3 | 77 | 2 | 40-140/20 |
| 50-32-8 | Benzo(a)pyrene | ND | | 50 | 38.3 | 77 | 50 | 36.8 | 74 | 4 | 40-140/20 |
| 205-99-2 | Benzo(b)fluoranthene | ND | | 50 | 40.8 | 82 | 50 | 39.8 | 80 | 2 | 40-140/20 |
| 191-24-2 | Benzo(g,h,i)perylene | ND | | 50 | 42.6 | 85 | 50 | 41.6 | 83 | 2 | 40-140/20 |
| 207-08-9 | Benzo(k)fluoranthene | ND | | 50 | 40.4 | 81 | 50 | 37.9 | 76 | 6 | 40-140/20 |
| 218-01-9 | Chrysene | ND | | 50 | 37.6 | 75 | 50 | 36.4 | 73 | 3 | 40-140/20 |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | | 50 | 45.0 | 90 | 50 | 44.3 | 89 | 2 | 40-140/20 |
| 206-44-0 | Fluoranthene | ND | | 50 | 38.8 | 78 | 50 | 37.4 | 75 | 4 | 40-140/20 |
| 86-73-7 | Fluorene | ND | | 50 | 36.6 | 73 | 50 | 33.7 | 67 | 8 | 40-140/20 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | | 50 | 43.7 | 87 | 50 | 42.6 | 85 | 3 | 40-140/20 |
| 90-12-0 | 1-Methylnaphthalene | ND | | 50 | 32.5 | 65 | 50 | 29.8 | 60 | 9 | 40-140/20 |
| 91-57-6 | 2-Methylnaphthalene | ND | | 50 | 32.5 | 65 | 50 | 29.6 | 59 | 9 | 40-140/20 |
| 85-01-8 | Phenanthrene | 0.020 | JB | 50 | 35.8 | 72 | 50 | 33.7 | 67 | 6 | 40-140/20 |
| 129-00-0 | Pyrene | ND | | 50 | 38.3 | 77 | 50 | 37.4 | 75 | 2 | 40-140/20 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29300-21 | Limits |
|---|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 38% | 36% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 25% | 24% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 79% | 75% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 67% | 63% | 60% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 66% | 63% | 56% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 86% | 83% | 83% | 30-130% |

* = Outside of Control Limits.

# Semivolatile Internal Standard Area Summary



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSI3295-CC3238 | **Injection Date:** | 04/11/14 |
| **Lab File ID:** | I88482.D | **Injection Time:** | 07:52 |
| **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 | 360098 | 4.02 | 855565 | 5.07 | 514885 | 6.60 | 882349 | 7.98 | 653410 | 10.75 | 1614767 | 12.23 |
| Upper Limit [a] | 720196 | 4.52 | 1711130 | 5.57 | 1029770 | 7.10 | 1764698 | 8.48 | 1306820 | 11.25 | 3229534 | 12.73 |
| Lower Limit [b] | 180049 | 3.52 | 427783 | 4.57 | 257443 | 6.10 | 441175 | 7.48 | 326705 | 10.25 | 807384 | 11.73 |
| **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** |
| OP37548-MB | 336361 | 4.02 | 796242 | 5.07 | 470758 | 6.60 | 783295 | 7.98 | 584338 | 10.75 | 1403175 | 12.23 |
| OP37548-BS | 425181 | 4.02 | 975666 | 5.07 | 550836 | 6.60 | 890653 | 7.98 | 641710 | 10.76 | 1481002 | 12.23 |
| OP37548-MS | 404560 | 4.02 | 932650 | 5.07 | 526602 | 6.60 | 853609 | 7.98 | 620054 | 10.76 | 1423708 | 12.23 |
| OP37548-MSD | 375677 | 4.02 | 868712 | 5.07 | 488763 | 6.60 | 785462 | 7.98 | 561339 | 10.76 | 1287237 | 12.23 |
| MC29300-21 | 350054 | 4.02 | 825075 | 5.07 | 495490 | 6.60 | 834564 | 7.98 | 624900 | 10.75 | 1467229 | 12.23 |
| ZZZZZZ | 329178 | 4.02 | 775180 | 5.07 | 466223 | 6.60 | 797765 | 7.98 | 587347 | 10.75 | 1429458 | 12.23 |
| OP37458-MB | 316877 | 4.02 | 725977 | 5.07 | 443582 | 6.60 | 739370 | 7.98 | 537291 | 10.75 | 1313478 | 12.23 |
| OP37458-BS | 333125 | 4.02 | 799895 | 5.07 | 474221 | 6.60 | 796718 | 7.98 | 603258 | 10.76 | 1423647 | 12.23 |
| ZZZZZZ | 327766 | 4.02 | 761986 | 5.07 | 455088 | 6.60 | 769094 | 7.98 | 570180 | 10.75 | 1370666 | 12.23 |
| ZZZZZZ | 340542 | 4.02 | 774817 | 5.07 | 461059 | 6.60 | 768973 | 7.98 | 553555 | 10.75 | 1319749 | 12.23 |
| ZZZZZZ | 331196 | 4.02 | 775424 | 5.07 | 466961 | 6.60 | 781660 | 7.98 | 567569 | 10.75 | 1391463 | 12.23 |
| ZZZZZZ | 333095 | 4.02 | 767738 | 5.07 | 457101 | 6.60 | 763960 | 7.98 | 559872 | 10.75 | 1367022 | 12.23 |
| ZZZZZZ | 310367 | 4.01 | 716796 | 5.07 | 429468 | 6.60 | 723446 | 7.98 | 530569 | 10.75 | 1283269 | 12.23 |

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:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSI3305-CC3238 | **Injection Date:** | 04/23/14 |
| **Lab File ID:** | I88719.D | **Injection Time:** | 08:07 |
| **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 | 262938 | 3.96 | 613173 | 5.01 | 359756 | 6.53 | 607103 | 7.89 | 448501 | 10.67 | 1119205 | 12.15 |
| Upper Limit [a] | 525876 | 4.46 | 1226346 | 5.51 | 719512 | 7.03 | 1214206 | 8.39 | 897002 | 11.17 | 2238410 | 12.65 |
| Lower Limit [b] | 131469 | 3.46 | 306587 | 4.51 | 179878 | 6.03 | 303552 | 7.39 | 224251 | 10.17 | 559603 | 11.65 |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OP37700-MB | 257731 | 3.96 | 605476 | 5.01 | 349264 | 6.53 | 596558 | 7.89 | 451473 | 10.67 | 1128041 | 12.15 |
| OP37700-BS | 256773 | 3.96 | 596664 | 5.01 | 347066 | 6.53 | 582130 | 7.90 | 433621 | 10.68 | 1066923 | 12.15 |
| ZZZZZZ | 258252 | 3.96 | 602202 | 5.01 | 348655 | 6.53 | 588111 | 7.89 | 424525 | 10.67 | 1063752 | 12.15 |
| OP37682-MB | 300843 | 3.96 | 704924 | 5.01 | 406807 | 6.53 | 681203 | 7.89 | 503355 | 10.67 | 1242458 | 12.15 |
| OP37682-BS | 307280 | 3.96 | 714948 | 5.01 | 415168 | 6.53 | 692613 | 7.90 | 512497 | 10.68 | 1222162 | 12.15 |
| OP37682-MS | 304678 | 3.96 | 719865 | 5.01 | 420074 | 6.53 | 706452 | 7.90 | 525139 | 10.68 | 1284348 | 12.15 |
| OP37682-MSD | 290498 | 3.96 | 676185 | 5.01 | 393513 | 6.53 | 654689 | 7.90 | 478907 | 10.68 | 1145694 | 12.15 |
| MC29400-27 | 281268 | 3.96 | 664178 | 5.01 | 382473 | 6.53 | 649279 | 7.89 | 477387 | 10.67 | 1174262 | 12.15 |
| ZZZZZZ | 283527 | 3.96 | 659026 | 5.01 | 384677 | 6.53 | 643701 | 7.89 | 476195 | 10.67 | 1147012 | 12.15 |
| ZZZZZZ | 288114 | 3.96 | 669603 | 5.01 | 392926 | 6.53 | 667911 | 7.89 | 489913 | 10.67 | 1192540 | 12.15 |
| ZZZZZZ | 301066 | 3.96 | 696948 | 5.01 | 409886 | 6.53 | 684078 | 7.90 | 501727 | 10.68 | 1227610 | 12.15 |
| OP37694-MB | 270059 | 3.96 | 639088 | 5.01 | 369932 | 6.53 | 624408 | 7.89 | 461213 | 10.67 | 1145258 | 12.15 |
| OP37694-BS | 254238 | 3.96 | 607523 | 5.01 | 342511 | 6.53 | 562779 | 7.90 | 421966 | 10.68 | 1023268 | 12.15 |
| OP37694-BSD | 271771 | 3.96 | 632173 | 5.01 | 367386 | 6.53 | 597559 | 7.90 | 439640 | 10.68 | 1055335 | 12.15 |
| OP37694-MS | 254460 | 3.96 | 600660 | 5.01 | 346959 | 6.53 | 577449 | 7.90 | 433503 | 10.68 | 1050852 | 12.15 |
| OP37694-MSD | 265536 | 3.96 | 615382 | 5.01 | 355481 | 6.53 | 584611 | 7.90 | 427406 | 10.68 | 1037223 | 12.15 |
| MC29800-4 | 252860 | 3.96 | 586926 | 5.00 | 340433 | 6.53 | 577722 | 7.89 | 429508 | 10.67 | 1082117 | 12.14 |
| ZZZZZZ | 258336 | 3.96 | 599121 | 5.01 | 346548 | 6.53 | 580667 | 7.89 | 411359 | 10.67 | 1018408 | 12.14 |
| ZZZZZZ | 249714 | 3.96 | 587004 | 5.01 | 335983 | 6.53 | 563142 | 7.89 | 413163 | 10.67 | 1013800 | 12.14 |
| ZZZZZZ | 265945 | 3.96 | 627280 | 5.01 | 356718 | 6.53 | 589041 | 7.89 | 427988 | 10.67 | 1050830 | 12.14 |
| ZZZZZZ | 252247 | 3.95 | 580605 | 5.01 | 336068 | 6.53 | 554739 | 7.89 | 406046 | 10.67 | 1004184 | 12.14 |
| OP37713-MB | 234641 | 3.96 | 549832 | 5.00 | 318124 | 6.53 | 536456 | 7.89 | 395995 | 10.67 | 993000 | 12.14 |
| OP37713-BS | 276435 | 3.96 | 634903 | 5.01 | 357737 | 6.53 | 579544 | 7.90 | 413062 | 10.68 | 998519 | 12.15 |
| ZZZZZZ | 258019 | 3.95 | 597353 | 5.01 | 338696 | 6.53 | 556026 | 7.89 | 395918 | 10.67 | 975836 | 12.15 |
| MC29640-1 | 263063 | 3.96 | 621973 | 5.00 | 362958 | 6.53 | 620835 | 7.89 | 454635 | 10.67 | 1095914 | 12.14 |
| MC29640-2 | 293982 | 3.96 | 700850 | 5.00 | 402149 | 6.53 | 682235 | 7.89 | 502001 | 10.67 | 1227566 | 12.14 |
| MC29640-3 | 259709 | 3.96 | 618024 | 5.00 | 353452 | 6.53 | 603412 | 7.89 | 435420 | 10.67 | 1061611 | 12.14 |
| MC29640-4 | 272872 | 3.96 | 648710 | 5.01 | 374794 | 6.53 | 638282 | 7.89 | 456763 | 10.67 | 1088785 | 12.14 |

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

# Semivolatile Internal Standard Area Summary



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSI3305-CC3238 | **Injection Date:** | 04/23/14 |
| **Lab File ID:** | I88719.D | **Injection Time:** | 08:07 |
| **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: MC29640
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| Check Std: | MSR1404-CC1399 | Injection Date: | 04/11/14 |
| Lab File ID: | R38066.D | Injection Time: | 13:50 |
| 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 | 152425 | 5.32 | 563206 | 6.42 | 330168 | 7.95 | 497203 | 9.26 | 440501 | 11.84 | 376368 | 13.54 |
| Upper Limit [a] | 304850 | 5.82 | 1126412 | 6.92 | 660336 | 8.45 | 994406 | 9.76 | 881002 | 12.34 | 752736 | 14.04 |
| Lower Limit [b] | 76213 | 4.82 | 281603 | 5.92 | 165084 | 7.45 | 248602 | 8.76 | 220251 | 11.34 | 188184 | 13.04 |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OP37547-MB | 151150 | 5.32 | 497976 | 6.42 | 314587 | 7.95 | 430534 | 9.26 | 524307 | 11.84 | 397073 | 13.54 |
| OP37547-BS | 189289 | 5.32 | 702187 | 6.42 | 410799 | 7.95 | 672117 | 9.26 | 645362 | 11.84 | 434435 | 13.54 |
| ZZZZZZ | 162233 | 5.32 | 576016 | 6.42 | 323934 | 7.95 | 471998 | 9.26 | 447864 | 11.84 | 418692 | 13.54 |
| OP37547-MS | 176933 | 5.32 | 658155 | 6.42 | 382254 | 7.95 | 634582 | 9.26 | 643078 | 11.84 | 578533 | 13.54 |
| OP37547-MSD | 142422 | 5.32 | 467863 | 6.42 | 245959 | 7.96 | 445829 | 9.26 | 485876 | 11.84 | 440499 | 13.54 |
| MC29300-18 | 180448 | 5.32 | 657630 | 6.42 | 352428 | 7.95 | 487618 | 9.26 | 580247 | 11.84 | 420761 | 13.54 |
| ZZZZZZ | 157985 | 5.32 | 583334 | 6.42 | 340634 | 7.95 | 562610 | 9.26 | 398727 | 11.84 | 400219 | 13.53 |
| OP37509-MB | 134115 | 5.32 | 491846 | 6.42 | 248816 | 7.95 | 504899 | 9.26 | 383859 | 11.83 | 456324 | 13.53 |
| OP37509-BS | 169303 | 5.32 | 617925 | 6.42 | 355004 | 7.95 | 576719 | 9.26 | 509897 | 11.84 | 467237 | 13.54 |
| OP37509-MS | 163062 | 5.32 | 597468 | 6.42 | 349403 | 7.95 | 568871 | 9.26 | 559985 | 11.84 | 513389 | 13.54 |
| OP37509-MSD | 142030 | 5.32 | 492665 | 6.42 | 316499 | 7.95 | 402204 | 9.26 | 498267 | 11.84 | 371445 | 13.54 |
| MC29449-1 | 158909 | 5.32 | 584424 | 6.42 | 345424 | 7.95 | 566551 | 9.26 | 546910 | 11.83 | 502185 | 13.53 |
| MSR1404-ECC1399 | 148705 | 5.32 | 555737 | 6.42 | 330395 | 7.95 | 566000 | 9.26 | 575682 | 11.84 | 537675 | 13.54 |

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:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSR1405-CC1399 | **Injection Date:** | 04/11/14 |
| **Lab File ID:** | R38087.D | **Injection Time:** | 23:16 |
| **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 | 137813 | 5.32 | 553274 | 6.42 | 296593 | 7.95 | 413468 | 9.26 | 410221 | 11.84 | 388685 | 13.54 |
| Upper Limit [a] | 275626 | 5.82 | 1106548 | 6.92 | 593186 | 8.45 | 826936 | 9.76 | 820442 | 12.34 | 777370 | 14.04 |
| Lower Limit [b] | 68907 | 4.82 | 276637 | 5.92 | 148297 | 7.45 | 206734 | 8.76 | 205111 | 11.34 | 194343 | 13.04 |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OP37557-MB | 176911 | 5.32 | 674490 | 6.42 | 368380 | 7.95 | 526155 | 9.25 | 571703 | 11.84 | 490676 | 13.53 |
| OP37557-BS | 200637 | 5.32 | 733627 | 6.42 | 418031 | 7.95 | 677524 | 9.26 | 636123 | 11.84 | 540046 | 13.54 |
| ZZZZZZ | 172426 | 5.32 | 584784 | 6.42 | 289653 | 7.95 | 599335 | 9.26 | 465670 | 11.83 | 441690 | 13.53 |
| ZZZZZZ | 143446 | 5.32 | 538204 | 6.42 | 251644 | 7.95 | 428348 | 9.26 | 443129 | 11.83 | 566825 | 13.53 |
| MC29640-1 | 153328 | 5.32 | 563348 | 6.42 | 333063 | 7.95 | 550554 | 9.26 | 544003 | 11.83 | 384687 | 13.53 |
| MC29640-2 | 150843 | 5.32 | 457783 | 6.42 | 245320 | 7.95 | 403425 | 9.25 | 522093 | 11.83 | 410209 | 13.53 |
| MC29640-3 | 153309 | 5.32 | 564182 | 6.42 | 330446 | 7.95 | 548076 | 9.25 | 383536 | 11.83 | 367495 | 13.53 |
| MC29640-4 | 148829 | 5.32 | 546612 | 6.42 | 321873 | 7.95 | 524334 | 9.26 | 403155 | 11.84 | 484511 | 13.53 |
| ZZZZZZ | 157404 | 5.32 | 581412 | 6.42 | 348014 | 7.95 | 575087 | 9.25 | 487456 | 11.83 | 394394 | 13.53 |
| ZZZZZZ | 193061 | 5.32 | 712733 | 6.42 | 415515 | 7.95 | 662681 | 9.25 | 450790 | 11.83 | 418762 | 13.53 |
| ZZZZZZ | 175872 | 5.32 | 593553 | 6.42 | 295085 | 7.95 | 610823 | 9.25 | 449870 | 11.84 | 424922 | 13.53 |
| ZZZZZZ | 200658 | 5.32 | 712263 | 6.42 | 407162 | 7.95 | 646961 | 9.26 | 576749 | 11.84 | 428986 | 13.56 |
| ZZZZZZ | 191211 | 5.32 | 613937 | 6.42 | 274635 | 7.95 | 442241 | 9.26 | 573791 | 11.84 | 446118 | 13.56 |
| ZZZZZZ | 190104 | 5.32 | 694359 | 6.42 | 398145 | 7.95 | 630295 | 9.26 | 408935 | 11.84 | 392519 | 13.54 |
| ZZZZZZ | 123113 | 5.32 | 447177 | 6.42 | 336839 | 7.95 | 411473 | 9.26 | 392315 | 11.84 | 369175 | 13.54 |
| ZZZZZZ | 196523 | 5.32 | 665235 | 6.42 | 278610 | 7.95 | 446024 | 9.25 | 452097 | 11.84 | 523733 | 13.53 |
| ZZZZZZ | 165393 | 5.32 | 504128 | 6.42 | 323424 | 7.95 | 446320 | 9.26 | 419072 | 11.83 | 401759 | 13.53 |
| ZZZZZZ | 205741 | 5.32 | 739248 | 6.42 | 420608 | 7.95 | 639724 | 9.26 | 447841 | 11.84 | 416119 | 13.54 |
| ZZZZZZ | 192229 | 5.32 | 509599 | 6.41 | 296753 | 7.95 | 472265 | 9.26 | 448780 | 11.84 | 437811 | 13.54 |
| ZZZZZZ | 206348 | 5.32 | 737677 | 6.42 | 387118 | 7.95 | 458021 | 9.26 | 438574 | 11.84 | 524563 | 13.54 |
| ZZZZZZ | 210541 | 5.32 | 675321 | 6.42 | 345863 | 7.95 | 545248 | 9.26 | 445280 | 11.84 | 438908 | 13.54 |
| ZZZZZZ | 194656 | 5.32 | 636036 | 6.41 | 301307 | 7.95 | 513654 | 9.26 | 485165 | 11.84 | 413729 | 13.53 |
| ZZZZZZ | 193174 | 5.32 | 700480 | 6.41 | 401290 | 7.95 | 636409 | 9.26 | 582823 | 11.84 | 558475 | 13.54 |
| ZZZZZZ | 159976 | 5.32 | 627926 | 6.42 | 343236 | 7.95 | 568422 | 9.26 | 522845 | 11.84 | 515412 | 13.53 |
| ZZZZZZ | 212053 | 5.32 | 761487 | 6.42 | 435057 | 7.95 | 679562 | 9.26 | 634458 | 11.84 | 596235 | 13.54 |

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:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 |
|---|---|---|---|---|---|---|---|
| MC29640-1 | R38092.D | 42 | 29 | 66 | 63 | 62 | 87 |
| MC29640-2 | R38093.D | 26 | 17 | 72 | 77 | 85 | 73 |
| MC29640-3 | R38094.D | 34 | 23 | 56 | 63 | 61 | 117 |
| MC29640-4 | R38095.D | 25 | 18 | 60 | 68 | 68 | 108 |
| OP37547-BS | R38068.D | 46 | 30 | 75 | 72 | 72 | 86 |
| OP37547-MB | R38067.D | 48 | 31 | 73 | 84 | 70 | 66 |
| OP37547-MS | R38070.D | 46 | 30 | 74 | 70 | 72 | 83 |
| OP37547-MSD | R38071.D | 44 | 28 | 89 | 81 | 85 | 76 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = 2-Fluorophenol | 15-110% |
| S2 = Phenol-d5 | 15-110% |
| S3 = 2,4,6-Tribromophenol | 15-110% |
| S4 = Nitrobenzene-d5 | 30-130% |
| S5 = 2-Fluorobiphenyl | 30-130% |
| S6 = Terphenyl-d14 | 30-130% |

# Semivolatile Surrogate Recovery Summary



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 |
|---|---|---|---|---|
| MC29640-1 | I88744.D | 62 | 59 | 85 |
| MC29640-2 | I88745.D | 67 | 65 | 91 |
| MC29640-3 | I88746.D | 60 | 58 | 85 |
| MC29640-4 | I88747.D | 66 | 63 | 94 |
| OP37548-BS | I88484.D | 68 | 66 | 86 |
| OP37548-MB | I88483.D | 71 | 69 | 89 |
| OP37548-MS | I88485.D | 67 | 66 | 86 |
| OP37548-MSD | I88486.D | 63 | 63 | 83 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = Nitrobenzene-d5 | 30-130% |
| S2 = 2-Fluorobiphenyl | 30-130% |
| S3 = Terphenyl-d14 | 30-130% |

## 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:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37606-MB | YZ89225.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |

**The QC reported here applies to the following samples:** **Method:** SW846 8011

MC29640-1, MC29640-2, MC29640-3, MC29640-4, MC29640-6

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.015 | 0.0054 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.015 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 74% | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 59% | 36-173% |

# Blank Spike Summary



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37606-BS | YZ89226.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |

**The QC reported here applies to the following samples:** **Method:** SW846 8011

MC29640-1, MC29640-2, MC29640-3, MC29640-4, MC29640-6

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 0.071 | 0.049 | 69 | 60-140 |
| 106-93-4 | 1,2-Dibromoethane | 0.071 | 0.046 | 65 | 60-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 52% | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 50% | 36-173% |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37606-MS | YZ89227.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |
| OP37606-MSD | YZ89228.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |
| MC29713-2 | YZ89229.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |

**The QC reported here applies to the following samples:** **Method:** SW846 8011

MC29640-1, MC29640-2, MC29640-3, MC29640-4, MC29640-6

| CAS No. | Compound | MC29713-2 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 | | 0.0685 | 0.061 | 89 | 0.0675 | 0.063 | 93 | 3 | 64-141/29 |
| 106-93-4 | 1,2-Dibromoethane | ND | | 0.0685 | 0.045 | 66 | 0.0675 | 0.054 | 80 | 18 | 63-163/27 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29713-2 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 67% | 88% | 62% | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 63% | 73% | 54% | 36-173% |

* = Outside of Control Limits.

# Volatile Surrogate Recovery Summary



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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] |
|---|---|---|---|
| MC29640-1 | YZ89233.D | 107 | 75 |
| MC29640-2 | YZ89234.D | 112 | 86 |
| MC29640-3 | YZ89236.D | 101 | 75 |
| MC29640-4 | YZ89237.D | 123 | 92 |
| MC29640-6 | YZ89238.D | 91 | 66 |
| OP37606-BS | YZ89226.D | 52 | 50 |
| OP37606-MB | YZ89225.D | 74 | 59 |
| OP37606-MS | YZ89227.D | 67 | 63 |
| OP37606-MSD | YZ89228.D | 88 | 73 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = Bromofluorobenzene (S) | 36-173% |

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

# GC Surrogate Retention Time Summary



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | GYZ7541-ICC7541 | **Injection Date:** | 04/15/14 |
| **Lab File ID:** | YZ89221.D | **Injection Time:** | 10:38 |
| **Instrument ID:** | GCYZ | **Method:** | SW846 8011 |

| | S1 [a] RT | S1 [b] RT |
|---|---|---|
| Check Std | 4.08 | 4.76 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 [a] RT | S1 [b] RT |
|---|---|---|---|---|---|
| OP37606-MB | YZ89225.D | 04/15/14 | 13:15 | 4.08 | 4.76 |
| OP37606-BS | YZ89226.D | 04/15/14 | 13:42 | 4.08 | 4.76 |
| OP37606-MS | YZ89227.D | 04/15/14 | 14:10 | 4.08 | 4.76 |
| OP37606-MSD | YZ89228.D | 04/15/14 | 14:38 | 4.08 | 4.76 |
| MC29713-2 | YZ89229.D | 04/15/14 | 15:05 | 4.08 | 4.76 |
| ZZZZZZ | YZ89230.D | 04/15/14 | 15:33 | 4.08 | 4.76 |
| ZZZZZZ | YZ89231.D | 04/15/14 | 16:00 | 4.08 | 4.76 |
| ZZZZZZ | YZ89232.D | 04/15/14 | 16:28 | 4.08 | 4.76 |
| MC29640-1 | YZ89233.D | 04/15/14 | 16:56 | 4.08 | 4.76 |
| MC29640-2 | YZ89234.D | 04/15/14 | 17:25 | 4.08 | 4.76 |

**Surrogate Compounds**

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

# GC Surrogate Retention Time Summary



**Job Number:** MC29640
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | GYZ7541-CC7541 | **Injection Date:** | 04/15/14 |
| **Lab File ID:** | YZ89235.D | **Injection Time:** | 17:53 |
| **Instrument ID:** | GCYZ | **Method:** | SW846 8011 |

| | S1 [a] RT | S1 [b] RT |
|---|---|---|
| Check Std | 4.08 | 4.76 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 [a] RT | S1 [b] RT |
|---|---|---|---|---|---|
| MC29640-3 | YZ89236.D | 04/15/14 | 18:21 | 4.08 | 4.76 |
| MC29640-4 | YZ89237.D | 04/15/14 | 18:49 | 4.08 | 4.76 |
| MC29640-6 | YZ89238.D | 04/15/14 | 19:16 | 4.08 | 4.76 |
| ZZZZZZ | YZ89239.D | 04/15/14 | 19:44 | 4.08 | 4.76 |
| ZZZZZZ | YZ89240.D | 04/15/14 | 20:11 | 4.08 | 4.76 |
| ZZZZZZ | YZ89241.D | 04/15/14 | 20:37 | 4.08 | 4.76 |
| ZZZZZZ | YZ89242.D | 04/15/14 | 21:05 | 4.08 | 4.76 |
| ZZZZZZ | YZ89243.D | 04/15/14 | 21:33 | 4.08 | 4.76 |
| ZZZZZZ | YZ89244.D | 04/15/14 | 21:59 | 4.07 | 4.76 |
| ZZZZZZ | YZ89245.D | 04/15/14 | 22:26 | 4.07 | 4.76 |

**Surrogate Compounds**

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

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# Technical Report for

## Shell Oil

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana,

SGS Accutest Job Number: MC29684

Sampling Date: 04/10/14



Report to:

AECOM, INC.

Melissa.mansker@aecom.com

ATTN: Melissa Mansker

Total number of pages in report: 111

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.

H. (Brad) Madadian
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO (MA00136) MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.



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SGS ACCUTEST

November 2, 2016

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

RE: SGS Accutest Job # MC29684

Dear Elizabeth Kunkel

As you are aware, SGS Accutest Inc. - Marlboroug has been conducting an extensive review of data associated with some historical Gas Chromatography-Mass Spectroscopy volatiles analyses. As a result of this review it was determined that some revisions of the original test report for this job were needed. These corrections have been incorporated into the revised report.

Please be assured that corrective actions have been put in place to address this matter and prevent a recurrence.

We apologize for any inconvenience that this issue may have caused. Please don't hesitate to contact us if we can be of further assistance.

Sincerely

**H. (Brad) Madadian**

Regional Laboratory Director
SGS Accutest Inc. - Marlborough

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# Sample Summary

Shell Oil

Job No: MC29684

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample Number | Collected Date | Time | By | Received | Matrix Code | Type | Client Sample ID |
|---|---|---|---|---|---|---|---|
| MC29684-1 | 04/10/14 | 09:20 | DMMM | 04/11/14 | AQ | Ground Water | ROST4PZC-ROX-041014 |
| MC29684-2 | 04/10/14 | 10:55 | DMMM | 04/11/14 | AQ | Ground Water | ROST3MW-ROX-041014 |
| MC29684-3 | 04/10/14 | 12:40 | DMMM | 04/11/14 | AQ | Equipment Blank | MW5-ROX-041014-EB |
| MC29684-4 | 04/10/14 | 13:40 | DMMM | 04/11/14 | AQ | Ground Water | MW5-ROX-041014 |
| MC29684-5 | 04/10/14 | 14:45 | DMMM | 04/11/14 | AQ | Ground Water | MW2-ROX-041014 |
| MC29684-6 | 04/10/14 | 15:55 | DMMM | 04/11/14 | AQ | Ground Water | MW22-ROX-041014 |
| MC29684-7 | 04/10/14 | 15:55 | DMMM | 04/11/14 | AQ | Ground Water | MW22-ROX-041014-DUP |
| MC29684-8 | 04/10/14 | 00:00 | DMMM | 04/11/14 | AQ | Trip Blank Water | TB-ROX-041014-HCL |
| MC29684-9 | 04/10/14 | 00:00 | DMMM | 04/11/14 | AQ | Trip Blank Water | TB-ROX-041014-ST |

# SAMPLE DELIVERY GROUP CASE NARRATIVE



**Client:** She O **Job No** MC29684

**Site:** URSMOSTL:Roxana 2Q 4 GW/ 2 562973 03002 900 South Centra **Report Date** /2/20 6 3: 8:54 PM

7 Samp e(s), 2 Tr p B ank(s) were co ected on 04/ 0/20 4 and were rece ved at SGS Accutest New Eng and on 04/ /20 4 proper y preserved, at 2 Deg C and ntact These Samp es rece ved a job number of MC29684 A st ng of the Laboratory Samp e ID, C ent Samp e ID and dates of co ect on are presented n the Resu ts Summary Sect on of th s report -Ch orohexane, Benzeneth o , D benz(a,h)acr d ne, Indene, and Qu no ne were searched n the bra y search and reported on y f detect ons were found

Except as noted be ow, a method spec f ed ca brat ons and qua ty contro performance cr ter a were met for th s job For more nformat on, p ease refer to QC summary pages

## Volatiles by GCMS By Method SW846 8260C

**Matrix:** AQ **Batch ID:** MSV 2

- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29640- MS, MC29640- MSD were used as the QC samp es nd cated
- A method b anks for th s batch meet method spec f c cr ter a
- B ank Sp ke Recovery(s) for 2-Ch oroethy v ny ether, 2-Hexanone, Acetone, Acro e n are outs de contro m ts
- Matr x Sp ke Recovery(s) for ,2,3-Tr ch orobenzene, ,4-D oxane, 2-Ch oroethy v ny ether, Acro e n, D ch orod f uoromethane, Naphtha ene are outs de contro m ts Outs de contro m ts due to poss b e matr x nterference
- Matr x Sp ke Dup cate Recove y(s) for 2-Ch oroethy v ny ether, Acro e n, D ch orod f uoromethane are outs de contro m ts Outs de contro m ts due to poss b e matr x nterference
- RPD(s) for MSD for ,2,3-Tr ch orobenzene, Naphtha ene are outs de contro m ts for samp e MC29640- MSD H gh RPD due to poss b e matr x nterference and/or samp e non-homogene ty
- Acetone: Cont nu ng Ca brat on Ver f cat on outs de of acceptance cr ter a Samp e resu t may be b ased h gh or non-detect for th s compound
- 2-Ch oroethy v ny ether: Cont nu ng Ca brat on Ver f cat on outs de of acceptance cr ter a Samp e resu t may be b ased ow

**Matrix:** AQ **Batch ID:** MSV 23

- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29893- MS, MC29893- MSD were used as the QC samp es nd cated
- A method b anks for th s batch meet method spec f c cr ter a
- Matr x Sp ke Recovery(s) for Naphtha ene are outs de contro m ts Outs de contro m ts due to poss b e matr x nte ference Refer to B ank Sp ke
- RPD(s) for MSD for Naphtha ene are outs de contro m ts for samp e MC29893- MSD H gh RPD due to poss b e matr x nterference and/or samp e non-homogene ty

## Extractables by GCMS By Method SW846 8270D

**Matrix:** AQ **Batch ID:** OP37586

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29400- MS, MC29400- MSD were used as the QC samp es nd cated
- Samp e(s) MC29684- , MC29684-2, MC29684-3, MC29684-4, MC29684-5, MC29684-6, MC29684-7 have compound(s) reported w th a "B" qua f er, nd cat ng ana yte s found n the assoc ated method b ank
- OP37586-BS/MS/MSD Recovery(s) for Benzo c Ac d are outs de contro m ts
- Matr x Sp ke Recovery(s) for 4-N tropheno , Pheno are outs de contro m ts Outs de contro m ts due to poss b e matr x nterference Refer to B ank Sp ke
- Matr x Sp ke Dup cate Recove y(s) for 4-N tropheno are outs de contro m ts Outs de contro m ts due to poss b e matr x nterference Refer to B ank Sp ke
- RPD(s) for MSD for 2,4-D methy pheno are outs de contro m ts for samp e OP37586-MSD H gh RPD due to poss b e matr x nterference and/or samp e non-homogene ty

## Extractables by GCMS By Method SW846 8270D BY SIM

**Matrix:** AQ **Batch ID:** OP37587

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29400-2MS, MC29400-2MSD were used as the QC samp es nd cated
- A method b anks for th s batch meet method spec f c cr ter a

## Volatiles by GC By Method SW846 8011

**Matrix:** AQ **Batch ID:** OP37606

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC297 3-2MS, MC297 3-2MSD were used as the QC samp es nd cated
- A method b anks for th s batch meet method spec f c cr ter a

SGS Accutest New Eng and cert f es that a ana ys s were performed w th n method spec f cat on It s further recommended that th s report to be used n ts ent rety The Laborato y D rector for SGS Accutest New Eng and or ass gnee as ver f ed by the s gnature on the cover page has author zed the re ease of th s repo t(MC29684)

# Summary of Hits



Job Number: MC29684
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
Collected: 04/10/14



| Lab Sample ID / Analyte | Client Sample ID | Result/ Qual | RL | MDL | Units | Method |
|---|---|---|---|---|---|---|
| MC29684-1 | ROST4PZC-ROX-041014 | | | | | |
| Benzene | | 1.9 | 0.50 | 0.32 | ug/l | SW846 8260C |
| Ethylbenzene | | 0.59 J | 1.0 | 0.38 | ug/l | SW846 8260C |
| Toluene | | 0.57 J | 1.0 | 0.33 | ug/l | SW846 8260C |
| m,p-Xylene | | 1.5 | 1.0 | 0.93 | ug/l | SW846 8260C |
| o-Xylene | | 1.5 | 1.0 | 0.36 | ug/l | SW846 8260C |
| Xylene (total) | | 3.0 | 1.0 | 0.36 | ug/l | SW846 8260C |
| Di-n-butyl phthalate | | 0.38 JB | 5.6 | 0.19 | ug/l | SW846 8270D |
| 1-Methylnaphthalene | | 0.065 J | 0.22 | 0.056 | ug/l | SW846 8270D BY SIM |
| Phenanthrene | | 0.051 J | 0.056 | 0.014 | ug/l | SW846 8270D BY SIM |
| MC29684-2 | ROST3MW-ROX-041014 | | | | | |
| Benzene | | 7.5 | 0.50 | 0.32 | ug/l | SW846 8260C |
| Ethylbenzene | | 5.5 | 1.0 | 0.38 | ug/l | SW846 8260C |
| Isopropylbenzene | | 0.43 J | 5.0 | 0.35 | ug/l | SW846 8260C |
| Naphthalene | | 0.84 J | 5.0 | 0.69 | ug/l | SW846 8260C |
| n-Propylbenzene | | 0.82 J | 5.0 | 0.49 | ug/l | SW846 8260C |
| Toluene | | 1.5 | 1.0 | 0.33 | ug/l | SW846 8260C |
| 1,2,4-Trimethylbenzene | | 12.1 | 5.0 | 0.32 | ug/l | SW846 8260C |
| 1,3,5-Trimethylbenzene | | 3.0 J | 5.0 | 0.38 | ug/l | SW846 8260C |
| m,p-Xylene | | 28.7 | 1.0 | 0.93 | ug/l | SW846 8260C |
| o-Xylene | | 2.8 | 1.0 | 0.36 | ug/l | SW846 8260C |
| Xylene (total) | | 31.5 | 1.0 | 0.36 | ug/l | SW846 8260C |
| Di-n-butyl phthalate | | 0.76 JB | 6.0 | 0.21 | ug/l | SW846 8270D |
| 1-Methylnaphthalene | | 0.75 | 0.24 | 0.059 | ug/l | SW846 8270D BY SIM |
| 2-Methylnaphthalene | | 0.80 | 0.24 | 0.088 | ug/l | SW846 8270D BY SIM |
| Phenanthrene | | 0.10 | 0.060 | 0.015 | ug/l | SW846 8270D BY SIM |
| MC29684-3 | MW5-ROX-041014-EB | | | | | |
| Di-n-butyl phthalate | | 0.40 JB | 5.6 | 0.19 | ug/l | SW846 8270D |
| MC29684-4 | MW5-ROX-041014 | | | | | |
| Acetone [a] | | 21.0 | 10 | 2.5 | ug/l | SW846 8260C |
| Benzene | | 3.7 | 0.50 | 0.32 | ug/l | SW846 8260C |
| sec-Butylbenzene | | 1.7 J | 5.0 | 0.42 | ug/l | SW846 8260C |
| tert-Butylbenzene | | 6.2 | 5.0 | 0.39 | ug/l | SW846 8260C |
| Methyl Tert Butyl Ether | | 34.4 | 1.0 | 0.51 | ug/l | SW846 8260C |
| Naphthalene | | 1.0 J | 5.0 | 0.69 | ug/l | SW846 8260C |
| Toluene | | 1.3 | 1.0 | 0.33 | ug/l | SW846 8260C |
| 1,2,4-Trimethylbenzene | | 0.52 J | 5.0 | 0.32 | ug/l | SW846 8260C |
| m,p-Xylene | | 1.3 | 1.0 | 0.93 | ug/l | SW846 8260C |

# Summary of Hits

**Job Number:** MC29684
**Account:** Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Collected:** 04/10/14



| Lab Sample ID / Analyte | Client Sample ID | Result/ Qual | RL | MDL | Units | Method |
|---|---|---|---|---|---|---|
| o-Xylene | | 0.95 J | 1.0 | 0.36 | ug/l | SW846 8260C |
| Xylene (total) | | 2.3 | 1.0 | 0.36 | ug/l | SW846 8260C |
| Di-n-butyl phthalate | | 0.87 JB | 5.6 | 0.19 | ug/l | SW846 8270D |
| 1-Methylnaphthalene | | 3.8 | 0.22 | 0.056 | ug/l | SW846 8270D BY SIM |
| **MC29684-5** | **MW2-ROX-041014** | | | | | |
| Benzene | | 21.4 | 0.50 | 0.32 | ug/l | SW846 8260C |
| 2-Butanone (MEK) | | 13.6 | 5.0 | 2.3 | ug/l | SW846 8260C |
| n-Butylbenzene | | 20.8 | 5.0 | 1.1 | ug/l | SW846 8260C |
| sec-Butylbenzene | | 7.7 | 5.0 | 0.42 | ug/l | SW846 8260C |
| Ethylbenzene | | 478 | 10 | 3.8 | ug/l | SW846 8260C |
| Isopropylbenzene | | 81.6 | 5.0 | 0.35 | ug/l | SW846 8260C |
| p-Isopropyltoluene | | 9.0 | 5.0 | 0.37 | ug/l | SW846 8260C |
| Naphthalene | | 47.4 | 5.0 | 0.69 | ug/l | SW846 8260C |
| n-Propylbenzene | | 106 | 5.0 | 0.49 | ug/l | SW846 8260C |
| Toluene | | 7.2 | 1.0 | 0.33 | ug/l | SW846 8260C |
| 1,2,4-Trimethylbenzene | | 181 | 5.0 | 0.32 | ug/l | SW846 8260C |
| 1,3,5-Trimethylbenzene | | 121 | 5.0 | 0.38 | ug/l | SW846 8260C |
| m,p-Xylene | | 444 | 1.0 | 0.93 | ug/l | SW846 8260C |
| o-Xylene | | 27.5 | 1.0 | 0.36 | ug/l | SW846 8260C |
| Xylene (total) | | 472 | 1.0 | 0.36 | ug/l | SW846 8260C |
| Di-n-butyl phthalate | | 0.46 JB | 6.0 | 0.21 | ug/l | SW846 8270D |
| 1-Methylnaphthalene | | 8.3 | 0.24 | 0.059 | ug/l | SW846 8270D BY SIM |
| 2-Methylnaphthalene | | 19.3 | 0.24 | 0.088 | ug/l | SW846 8270D BY SIM |
| **MC29684-6** | **MW22-ROX-041014** | | | | | |
| Acetone [a] | | 91.1 | 10 | 2.5 | ug/l | SW846 8260C |
| Benzene | | 1700 | 25 | 16 | ug/l | SW846 8260C |
| 2-Butanone (MEK) | | 33.4 | 5.0 | 2.3 | ug/l | SW846 8260C |
| n-Butylbenzene | | 33.1 | 5.0 | 1.1 | ug/l | SW846 8260C |
| sec-Butylbenzene | | 12.8 | 5.0 | 0.42 | ug/l | SW846 8260C |
| tert-Butylbenzene | | 15.2 | 5.0 | 0.39 | ug/l | SW846 8260C |
| Ethylbenzene | | 3320 | 50 | 19 | ug/l | SW846 8260C |
| Isopropylbenzene | | 157 | 5.0 | 0.35 | ug/l | SW846 8260C |
| p-Isopropyltoluene | | 9.4 | 5.0 | 0.37 | ug/l | SW846 8260C |
| Naphthalene | | 334 | 5.0 | 0.69 | ug/l | SW846 8260C |
| n-Propylbenzene | | 254 | 5.0 | 0.49 | ug/l | SW846 8260C |
| Toluene | | 5950 | 50 | 17 | ug/l | SW846 8260C |
| 1,2,4-Trimethylbenzene | | 1100 | 250 | 16 | ug/l | SW846 8260C |
| 1,3,5-Trimethylbenzene | | 384 | 5.0 | 0.38 | ug/l | SW846 8260C |
| m,p-Xylene | | 6850 | 50 | 47 | ug/l | SW846 8260C |
| o-Xylene | | 3380 | 50 | 18 | ug/l | SW846 8260C |
| Xylene (total) | | 10200 | 50 | 18 | ug/l | SW846 8260C |

# Summary of Hits

**Job Number:** MC29684
**Account:** Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Collected:** 04/10/14



| Lab Sample ID / Analyte | Client Sample ID | Result/ Qual | RL | MDL | Units | Method |
|---|---|---|---|---|---|---|
| 2,4-Dimethylphenol | | 31.6 J | 56 | 3.2 | ug/l | SW846 8270D |
| 2-Methylphenol | | 15.6 J | 56 | 1.3 | ug/l | SW846 8270D |
| 3&4-Methylphenol | | 35.0 J | 56 | 2.6 | ug/l | SW846 8270D |
| Di-n-butyl phthalate | | 1.6 JB | 28 | 0.97 | ug/l | SW846 8270D |
| Acenaphthene | | 0.10 J | 0.11 | 0.077 | ug/l | SW846 8270D BY SIM |
| 1-Methylnaphthalene | | 17.4 | 0.22 | 0.056 | ug/l | SW846 8270D BY SIM |
| 2-Methylnaphthalene | | 28.7 | 0.22 | 0.083 | ug/l | SW846 8270D BY SIM |
| Phenanthrene | | 0.10 | 0.056 | 0.014 | ug/l | SW846 8270D BY SIM |
| **MC29684-7** | **MW22-ROX-041014-DUP** | | | | | |
| Benzene | | 1560 | 25 | 16 | ug/l | SW846 8260C |
| 2-Butanone (MEK) | | 28.7 | 5.0 | 2.3 | ug/l | SW846 8260C |
| n-Butylbenzene | | 31.9 | 5.0 | 1.1 | ug/l | SW846 8260C |
| sec-Butylbenzene | | 12.3 | 5.0 | 0.42 | ug/l | SW846 8260C |
| tert-Butylbenzene | | 14.4 | 5.0 | 0.39 | ug/l | SW846 8260C |
| Chlorobenzene | | 0.46 J | 1.0 | 0.43 | ug/l | SW846 8260C |
| Ethylbenzene | | 3020 | 50 | 19 | ug/l | SW846 8260C |
| Isopropylbenzene | | 138 | 5.0 | 0.35 | ug/l | SW846 8260C |
| p-Isopropyltoluene | | 8.9 | 5.0 | 0.37 | ug/l | SW846 8260C |
| 4-Methyl-2-pentanone (MIBK) | | 8.2 | 5.0 | 0.99 | ug/l | SW846 8260C |
| Naphthalene | | 280 | 250 | 34 | ug/l | SW846 8260C |
| n-Propylbenzene | | 235 | 5.0 | 0.49 | ug/l | SW846 8260C |
| Toluene | | 5520 | 50 | 17 | ug/l | SW846 8260C |
| 1,2,4-Trimethylbenzene | | 1000 | 250 | 16 | ug/l | SW846 8260C |
| 1,3,5-Trimethylbenzene | | 350 | 5.0 | 0.38 | ug/l | SW846 8260C |
| m,p-Xylene | | 6230 | 50 | 47 | ug/l | SW846 8260C |
| o-Xylene | | 3120 | 50 | 18 | ug/l | SW846 8260C |
| Xylene (total) | | 9350 | 50 | 18 | ug/l | SW846 8260C |
| 2,4-Dimethylphenol | | 32.0 J | 56 | 3.2 | ug/l | SW846 8270D |
| 2-Methylphenol | | 15.9 J | 56 | 1.3 | ug/l | SW846 8270D |
| 3&4-Methylphenol | | 38.0 J | 56 | 2.6 | ug/l | SW846 8270D |
| Di-n-butyl phthalate | | 1.8 JB | 28 | 0.97 | ug/l | SW846 8270D |
| Acenaphthene | | 0.12 | 0.11 | 0.077 | ug/l | SW846 8270D BY SIM |
| Fluorene | | 0.12 | 0.11 | 0.11 | ug/l | SW846 8270D BY SIM |
| 1-Methylnaphthalene | | 19.9 | 0.22 | 0.056 | ug/l | SW846 8270D BY SIM |
| 2-Methylnaphthalene | | 32.2 | 0.22 | 0.083 | ug/l | SW846 8270D BY SIM |
| Phenanthrene | | 0.10 | 0.056 | 0.014 | ug/l | SW846 8270D BY SIM |
| **MC29684-8** | **TB-ROX-041014-HCL** | | | | | |

No hits reported in this sample.

# Summary of Hits

**Job Number:** MC29684
**Account:** Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Collected:** 04/10/14



| Lab Sample ID / Analyte | Client Sample ID | Result/ Qual | RL | MDL | Units | Method |
|---|---|---|---|---|---|---|
| MC29684-9 | TB-ROX-041014-ST | | | | | |

No hits reported in this sample.

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased high.

## Sample Results

Report of Analysis

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | ROST4PZC-ROX-041014 | | |
| **Lab Sample ID:** | MC29684-1 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V29992.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |
| 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 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | 1.9 | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [a] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-041014 | | |
| **Lab Sample ID:** | MC29684-1 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | 0.59 | 1.0 | 0.38 | ug/l | J |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | 0.57 | 1.0 | 0.33 | ug/l | J |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | 1.5 | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | 1.5 | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | 3.0 | 1.0 | 0.36 | 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-041014 | | |
| **Lab Sample ID:** | MC29684-1 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 87% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 93% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 92% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041014 | | |
| **Lab Sample ID:** | MC29684-1 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | F72367.D | 1 | 04/18/14 | WK | 04/12/14 | OP37586 | MSF3219 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 890 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 | 0.35 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 11 | 0.93 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 11 | 0.45 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 11 | 0.63 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 22 | 2.8 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 11 | 2.2 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 11 | 0.25 | ug/l | |
| | 3&4-Methylphenol | ND | 11 | 0.52 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 11 | 3.2 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 22 | 0.60 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 11 | 1.3 | ug/l | |
| 108-95-2 | Phenol | ND | 5.6 | 0.34 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 11 | 0.42 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 11 | 0.20 | ug/l | |
| 62-53-3 | Aniline | ND | 11 | 0.72 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.6 | 0.53 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.6 | 0.60 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 11 | 2.5 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.6 | 0.35 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 11 | 0.63 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.6 | 0.32 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.6 | 0.39 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.6 | 0.37 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.6 | 0.28 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.6 | 0.27 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 11 | 0.51 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 11 | 0.34 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.6 | 0.30 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.2 | 0.29 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.38 | 5.6 | 0.19 | ug/l | JB |
| 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:** | ROST4PZC-ROX-041014 | | |
| **Lab Sample ID:** | MC29684-1 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.23 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.6 | 0.38 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.2 | 0.37 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.6 | 0.33 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 11 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.6 | 0.34 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.6 | 0.50 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 11 | 0.45 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 11 | 1.5 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 11 | 2.4 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.6 | 0.44 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.6 | 1.1 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.6 | 0.45 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.6 | 0.22 | ug/l | |
| 110-86-1 | Pyridine | ND | 11 | 0.58 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 45% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 30% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 75% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 70% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 70% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 83% | | 30-130% |

| 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-041014 | | |
| **Lab Sample ID:** | MC29684-1 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88591.D | 1 | 04/16/14 | MR | 04/12/14 | OP37587 | MSI3299 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 890 ml | 1.0 ml |
| Run #2 | | |

**BN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | ND | 0.11 | 0.077 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.11 | 0.056 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.11 | 0.10 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.056 | 0.022 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.11 | 0.032 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.056 | 0.036 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.11 | 0.030 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.11 | 0.043 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.11 | 0.027 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.11 | 0.036 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.11 | 0.046 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.11 | 0.11 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.11 | 0.034 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | 0.065 | 0.22 | 0.056 | ug/l | J |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.22 | 0.083 | ug/l | |
| 85-01-8 | Phenanthrene | 0.051 | 0.056 | 0.014 | ug/l | J |
| 129-00-0 | Pyrene | ND | 0.11 | 0.043 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 67% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 61% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 89% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates 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-041014 | | |
| **Lab Sample ID:** | MC29684-1 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89239.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 37.5 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0051 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 77% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 60% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041014 | | |
| **Lab Sample ID:** | MC29684-2 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V29993.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |
| 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 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | 7.5 | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [a] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-041014 | | |
| **Lab Sample ID:** | MC29684-2 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | 5.5 | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | 0.43 | 5.0 | 0.35 | ug/l | J |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | 0.84 | 5.0 | 0.69 | ug/l | J |
| 103-65-1 | n-Propylbenzene | 0.82 | 5.0 | 0.49 | ug/l | J |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | 1.5 | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | 12.1 | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | 3.0 | 5.0 | 0.38 | ug/l | J |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | 28.7 | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | 2.8 | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | 31.5 | 1.0 | 0.36 | 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-041014 | | |
| **Lab Sample ID:** | MC29684-2 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 77% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 93% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 89% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041014 | | |
| **Lab Sample ID:** | MC29684-2 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | F72368.D | 1 | 04/18/14 | WK | 04/12/14 | OP37586 | MSF3219 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 840 ml | 1.0 ml |
| Run #2 | | |

**ABN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 12 | 3.0 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 6.0 | 0.37 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 12 | 0.98 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 12 | 0.47 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 12 | 0.67 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 3.0 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 12 | 2.3 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 12 | 0.27 | ug/l | |
| | 3&4-Methylphenol | ND | 12 | 0.56 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 12 | 3.4 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 0.64 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 12 | 1.3 | ug/l | |
| 108-95-2 | Phenol | ND | 6.0 | 0.36 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 12 | 0.44 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 12 | 0.21 | ug/l | |
| 62-53-3 | Aniline | ND | 12 | 0.76 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 6.0 | 0.56 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 6.0 | 0.63 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 12 | 2.7 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 6.0 | 0.37 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 12 | 0.66 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 6.0 | 0.34 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 6.0 | 0.42 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 6.0 | 0.40 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 6.0 | 0.30 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 6.0 | 0.29 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 12 | 0.54 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 12 | 0.36 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 6.0 | 0.32 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.4 | 0.31 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.76 | 6.0 | 0.21 | ug/l | JB |
| 117-84-0 | Di-n-octyl phthalate | ND | 6.0 | 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:** | ROST3MW-ROX-041014 | | |
| **Lab Sample ID:** | MC29684-2 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**ABN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 84-66-2 | Diethyl phthalate | ND | 6.0 | 0.24 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 6.0 | 0.40 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.4 | 0.40 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 6.0 | 0.34 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 12 | 1.5 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 6.0 | 0.36 | ug/l | |
| 78-59-1 | Isophorone | ND | 6.0 | 0.53 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 12 | 0.47 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 12 | 1.6 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 12 | 2.6 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 6.0 | 0.47 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 6.0 | 1.2 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 6.0 | 0.48 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 6.0 | 0.23 | ug/l | |
| 110-86-1 | Pyridine | ND | 12 | 0.61 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 50% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 32% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 72% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 69% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 66% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 85% | | 30-130% |

| 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-041014 | | |
| **Lab Sample ID:** | MC29684-2 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88592.D | 1 | 04/16/14 | MR | 04/12/14 | OP37587 | MSI3299 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 840 ml | 1.0 ml |
| Run #2 | | |

**BN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | ND | 0.12 | 0.082 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.12 | 0.059 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.12 | 0.11 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.060 | 0.023 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.12 | 0.034 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.060 | 0.038 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.12 | 0.032 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.12 | 0.046 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.12 | 0.028 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.12 | 0.038 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.12 | 0.048 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.12 | 0.12 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.12 | 0.036 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | 0.75 | 0.24 | 0.059 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 0.80 | 0.24 | 0.088 | ug/l | |
| 85-01-8 | Phenanthrene | 0.10 | 0.060 | 0.015 | ug/l | |
| 129-00-0 | Pyrene | ND | 0.12 | 0.046 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 66% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 58% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 84% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041014 | | |
| **Lab Sample ID:** | MC29684-2 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89240.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.7 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0052 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 91% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 77% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041014-EB | | |
| **Lab Sample ID:** | MC29684-3 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Equipment Blank | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V29987.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |
| 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 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [a] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-041014-EB | | |
| **Lab Sample ID:** | MC29684-3 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Equipment Blank | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-041014-EB | | |
| **Lab Sample ID:** | MC29684-3 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Equipment Blank | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 94% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 87% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 91% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041014-EB | | |
| **Lab Sample ID:** | MC29684-3 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Equipment Blank | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | F72369.D | 1 | 04/18/14 | WK | 04/12/14 | OP37586 | MSF3219 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 890 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 | 0.35 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 11 | 0.93 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 11 | 0.45 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 11 | 0.63 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 22 | 2.8 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 11 | 2.2 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 11 | 0.25 | ug/l | |
| | 3&4-Methylphenol | ND | 11 | 0.52 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 11 | 3.2 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 22 | 0.60 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 11 | 1.3 | ug/l | |
| 108-95-2 | Phenol | ND | 5.6 | 0.34 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 11 | 0.42 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 11 | 0.20 | ug/l | |
| 62-53-3 | Aniline | ND | 11 | 0.72 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.6 | 0.53 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.6 | 0.60 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 11 | 2.5 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.6 | 0.35 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 11 | 0.63 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.6 | 0.32 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.6 | 0.39 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.6 | 0.37 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.6 | 0.28 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.6 | 0.27 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 11 | 0.51 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 11 | 0.34 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.6 | 0.30 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.2 | 0.29 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.40 | 5.6 | 0.19 | ug/l | JB |
| 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:** | MW5-ROX-041014-EB | | |
| **Lab Sample ID:** | MC29684-3 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Equipment Blank | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.23 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.6 | 0.38 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.2 | 0.37 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.6 | 0.33 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 11 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.6 | 0.34 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.6 | 0.50 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 11 | 0.45 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 11 | 1.5 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 11 | 2.4 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.6 | 0.44 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.6 | 1.1 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.6 | 0.45 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.6 | 0.22 | ug/l | |
| 110-86-1 | Pyridine | ND | 11 | 0.58 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 39% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 26% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 69% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 57% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 59% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 86% | | 30-130% |

| 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-041014-EB | | |
| **Lab Sample ID:** | MC29684-3 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Equipment Blank | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88593.D | 1 | 04/16/14 | MR | 04/12/14 | OP37587 | MSI3299 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 890 ml | 1.0 ml |
| Run #2 | | |

**BN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | ND | 0.11 | 0.077 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.11 | 0.056 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.11 | 0.10 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.056 | 0.022 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.11 | 0.032 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.056 | 0.036 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.11 | 0.030 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.11 | 0.043 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.11 | 0.027 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.11 | 0.036 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.11 | 0.046 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.11 | 0.11 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.11 | 0.034 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.22 | 0.056 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.22 | 0.083 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 0.056 | 0.014 | ug/l | |
| 129-00-0 | Pyrene | ND | 0.11 | 0.043 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 54% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 51% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 87% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041014-EB | | |
| **Lab Sample ID:** | MC29684-3 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Equipment Blank | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89241.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.4 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0052 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 90% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 69% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041014 | | |
| **Lab Sample ID:** | MC29684-4 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V29994.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |
| 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 [a] | 21.0 | 10 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | 3.7 | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | 1.7 | 5.0 | 0.42 | ug/l | J |
| 98-06-6 | tert-Butylbenzene | 6.2 | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [b] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-041014 | | |
| **Lab Sample ID:** | MC29684-4 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | 34.4 | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | 1.0 | 5.0 | 0.69 | ug/l | J |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | 1.3 | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.52 | 5.0 | 0.32 | ug/l | J |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | 1.3 | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | 0.95 | 1.0 | 0.36 | ug/l | J |
| 1330-20-7 | Xylene (total) | 2.3 | 1.0 | 0.36 | 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-041014 | | |
| **Lab Sample ID:** | MC29684-4 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 80% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 93% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 92% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased high.
(b) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates 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-041014 | | |
| **Lab Sample ID:** | MC29684-4 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | F72370.D | 1 | 04/18/14 | WK | 04/12/14 | OP37586 | MSF3219 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 890 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 | 0.35 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 11 | 0.93 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 11 | 0.45 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 11 | 0.63 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 22 | 2.8 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 11 | 2.2 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 11 | 0.25 | ug/l | |
| | 3&4-Methylphenol | ND | 11 | 0.52 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 11 | 3.2 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 22 | 0.60 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 11 | 1.3 | ug/l | |
| 108-95-2 | Phenol | ND | 5.6 | 0.34 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 11 | 0.42 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 11 | 0.20 | ug/l | |
| 62-53-3 | Aniline | ND | 11 | 0.72 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.6 | 0.53 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.6 | 0.60 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 11 | 2.5 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.6 | 0.35 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 11 | 0.63 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.6 | 0.32 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.6 | 0.39 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.6 | 0.37 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.6 | 0.28 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.6 | 0.27 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 11 | 0.51 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 11 | 0.34 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.6 | 0.30 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.2 | 0.29 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.87 | 5.6 | 0.19 | ug/l | JB |
| 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:** | MW5-ROX-041014 | | |
| **Lab Sample ID:** | MC29684-4 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.23 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.6 | 0.38 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.2 | 0.37 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.6 | 0.33 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 11 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.6 | 0.34 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.6 | 0.50 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 11 | 0.45 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 11 | 1.5 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 11 | 2.4 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.6 | 0.44 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.6 | 1.1 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.6 | 0.45 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.6 | 0.22 | ug/l | |
| 110-86-1 | Pyridine | ND | 11 | 0.58 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 50% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 31% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 86% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 76% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 73% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 87% | | 30-130% |

| 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-041014 | | |
| **Lab Sample ID:** | MC29684-4 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88594.D | 1 | 04/16/14 | MR | 04/12/14 | OP37587 | MSI3299 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 890 ml | 1.0 ml |
| Run #2 | | |

**BN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | ND | 0.11 | 0.077 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.11 | 0.056 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.11 | 0.10 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.056 | 0.022 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.11 | 0.032 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.056 | 0.036 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.11 | 0.030 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.11 | 0.043 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.11 | 0.027 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.11 | 0.036 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.11 | 0.046 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.11 | 0.11 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.11 | 0.034 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | 3.8 | 0.22 | 0.056 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.22 | 0.083 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 0.056 | 0.014 | ug/l | |
| 129-00-0 | Pyrene | ND | 0.11 | 0.043 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 71% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 64% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 87% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041014 | | |
| **Lab Sample ID:** | MC29684-4 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89242.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 37.3 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0051 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 107% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 90% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041014 | | |
| **Lab Sample ID:** | MC29684-5 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V29995.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |
| Run #2 | V30049.D | 10 | 04/22/14 | AMY | n/a | n/a | MSV1123 |

| | 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 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | 21.4 | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | 13.6 | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | 20.8 | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | 7.7 | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [a] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-041014 | | |
| **Lab Sample ID:** | MC29684-5 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | 478 [b] | 10 | 3.8 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | 81.6 | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | 9.0 | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | 47.4 | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | 106 | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | 7.2 | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | 181 | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | 121 | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | 444 | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | 27.5 | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | 472 | 1.0 | 0.36 | 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-041014 | | |
| **Lab Sample ID:** | MC29684-5 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 75% | 79% | 70-130% |
| 2037-26-5 | Toluene-D8 | 90% | 92% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 96% | 92% | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.
(b) 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-041014 | | |
| **Lab Sample ID:** | MC29684-5 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | F72371.D | 1 | 04/18/14 | WK | 04/12/14 | OP37586 | MSF3219 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 840 ml | 1.0 ml |
| Run #2 | | |

**ABN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 12 | 3.0 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 6.0 | 0.37 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 12 | 0.98 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 12 | 0.47 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 12 | 0.67 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 3.0 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 12 | 2.3 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 12 | 0.27 | ug/l | |
| | 3&4-Methylphenol | ND | 12 | 0.56 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 12 | 3.4 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 0.64 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 12 | 1.3 | ug/l | |
| 108-95-2 | Phenol | ND | 6.0 | 0.36 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 12 | 0.44 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 12 | 0.21 | ug/l | |
| 62-53-3 | Aniline | ND | 12 | 0.76 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 6.0 | 0.56 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 6.0 | 0.63 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 12 | 2.7 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 6.0 | 0.37 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 12 | 0.66 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 6.0 | 0.34 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 6.0 | 0.42 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 6.0 | 0.40 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 6.0 | 0.30 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 6.0 | 0.29 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 12 | 0.54 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 12 | 0.36 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 6.0 | 0.32 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.4 | 0.31 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.46 | 6.0 | 0.21 | ug/l | JB |
| 117-84-0 | Di-n-octyl phthalate | ND | 6.0 | 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:** | MW2-ROX-041014 | | |
| **Lab Sample ID:** | MC29684-5 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**ABN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 84-66-2 | Diethyl phthalate | ND | 6.0 | 0.24 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 6.0 | 0.40 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.4 | 0.40 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 6.0 | 0.34 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 12 | 1.5 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 6.0 | 0.36 | ug/l | |
| 78-59-1 | Isophorone | ND | 6.0 | 0.53 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 12 | 0.47 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 12 | 1.6 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 12 | 2.6 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 6.0 | 0.47 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 6.0 | 1.2 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 6.0 | 0.48 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 6.0 | 0.23 | ug/l | |
| 110-86-1 | Pyridine | ND | 12 | 0.61 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 52% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 33% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 86% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 78% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 76% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 90% | | 30-130% |

| 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-041014 | | |
| **Lab Sample ID:** | MC29684-5 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88595.D | 1 | 04/16/14 | MR | 04/12/14 | OP37587 | MSI3299 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 840 ml | 1.0 ml |
| Run #2 | | |

**BN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | ND | 0.12 | 0.082 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.12 | 0.059 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.12 | 0.11 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.060 | 0.023 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.12 | 0.034 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.060 | 0.038 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.12 | 0.032 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.12 | 0.046 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.12 | 0.028 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.12 | 0.038 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.12 | 0.048 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.12 | 0.12 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.12 | 0.036 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | 8.3 | 0.24 | 0.059 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 19.3 | 0.24 | 0.088 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 0.060 | 0.015 | ug/l | |
| 129-00-0 | Pyrene | ND | 0.12 | 0.046 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 74% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 65% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 91% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041014 | | |
| **Lab Sample ID:** | MC29684-5 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89243.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 37.0 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0051 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 106% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 74% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041014 | | |
| **Lab Sample ID:** | MC29684-6 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V29996.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |
| Run #2 | V30050.D | 50 | 04/22/14 | AMY | n/a | n/a | MSV1123 |

| | 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 [a] | 91.1 | 10 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | 1700 [b] | 25 | 16 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | 33.4 | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | 33.1 | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | 12.8 | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | 15.2 | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [c] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-041014 | | |
| **Lab Sample ID:** | MC29684-6 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | 3320 [b] | 50 | 19 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | 157 | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | 9.4 | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | 334 | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | 254 | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | 5950 [b] | 50 | 17 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | 1100 [b] | 250 | 16 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | 384 | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | 6850 [b] | 50 | 47 | ug/l | |
| 95-47-6 | o-Xylene | 3380 [b] | 50 | 18 | ug/l | |
| 1330-20-7 | Xylene (total) | 10200 [b] | 50 | 18 | 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-041014 | | |
| **Lab Sample ID:** | MC29684-6 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 79% | 83% | 70-130% |
| 2037-26-5 | Toluene-D8 | 89% | 89% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 99% | 92% | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased high.
(b) Result is from Run# 2
(c) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates 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-041014 | | |
| **Lab Sample ID:** | MC29684-6 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | F72372.D | 5 | 04/18/14 | WK | 04/12/14 | OP37586 | MSF3219 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 890 ml | 1.0 ml |
| Run #2 | | |

**ABN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 56 | 14 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 28 | 1.7 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 56 | 4.6 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 56 | 2.2 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | 31.6 | 56 | 3.2 | ug/l | J |
| 51-28-5 | 2,4-Dinitrophenol | ND | 110 | 14 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 56 | 11 | ug/l | |
| 95-48-7 | 2-Methylphenol | 15.6 | 56 | 1.3 | ug/l | J |
| | 3&4-Methylphenol | 35.0 | 56 | 2.6 | ug/l | J |
| 88-75-5 | 2-Nitrophenol | ND | 56 | 16 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 110 | 3.0 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 56 | 6.3 | ug/l | |
| 108-95-2 | Phenol | ND | 28 | 1.7 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 56 | 2.1 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 56 | 0.99 | ug/l | |
| 62-53-3 | Aniline | ND | 56 | 3.6 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 28 | 2.6 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 28 | 3.0 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 56 | 13 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 28 | 1.8 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 56 | 3.1 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 28 | 1.6 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 28 | 2.0 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 28 | 1.9 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 28 | 1.4 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 28 | 1.3 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 56 | 2.6 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 56 | 1.7 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 28 | 1.5 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 11 | 1.5 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 1.6 | 28 | 0.97 | ug/l | JB |
| 117-84-0 | Di-n-octyl phthalate | ND | 28 | 1.6 | 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-041014 | | |
| **Lab Sample ID:** | MC29684-6 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**ABN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 84-66-2 | Diethyl phthalate | ND | 28 | 1.1 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 28 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 11 | 1.9 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 28 | 1.6 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 56 | 7.2 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 28 | 1.7 | ug/l | |
| 78-59-1 | Isophorone | ND | 28 | 2.5 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 56 | 2.2 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 56 | 7.7 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 56 | 12 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 28 | 2.2 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 28 | 5.6 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 28 | 2.3 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 28 | 1.1 | ug/l | |
| 110-86-1 | Pyridine | ND | 56 | 2.9 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 84% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 34% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 91% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 81% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 82% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 103% | | 30-130% |

| 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:** | MW22-ROX-041014 | | |
| **Lab Sample ID:** | MC29684-6 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88596.D | 1 | 04/16/14 | MR | 04/12/14 | OP37587 | MSI3299 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 890 ml | 1.0 ml |
| Run #2 | | |

**BN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 0.10 | 0.11 | 0.077 | ug/l | J |
| 208-96-8 | Acenaphthylene | ND | 0.11 | 0.056 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.11 | 0.10 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.056 | 0.022 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.11 | 0.032 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.056 | 0.036 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.11 | 0.030 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.11 | 0.043 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.11 | 0.027 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.11 | 0.036 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.11 | 0.046 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.11 | 0.11 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.11 | 0.034 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | 17.4 | 0.22 | 0.056 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 28.7 | 0.22 | 0.083 | ug/l | |
| 85-01-8 | Phenanthrene | 0.10 | 0.056 | 0.014 | ug/l | |
| 129-00-0 | Pyrene | ND | 0.11 | 0.043 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 66% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 60% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 88% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041014 | | |
| **Lab Sample ID:** | MC29684-6 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89244.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 37.3 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0051 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 127% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 56% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041014-DUP | | |
| **Lab Sample ID:** | MC29684-7 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V29997.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |
| Run #2 | V30051.D | 50 | 04/22/14 | AMY | n/a | n/a | MSV1123 |

| | 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 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | 1560 [a] | 25 | 16 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | 28.7 | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | 31.9 | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | 12.3 | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | 14.4 | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | 0.46 | 1.0 | 0.43 | ug/l | J |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [b] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-041014-DUP | | |
| **Lab Sample ID:** | MC29684-7 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | 3020 [a] | 50 | 19 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | 138 | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | 8.9 | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 8.2 | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | 280 [a] | 250 | 34 | ug/l | |
| 103-65-1 | n-Propylbenzene | 235 | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | 5520 [a] | 50 | 17 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | 1000 [a] | 250 | 16 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | 350 | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | 6230 [a] | 50 | 47 | ug/l | |
| 95-47-6 | o-Xylene | 3120 [a] | 50 | 18 | ug/l | |
| 1330-20-7 | Xylene (total) | 9350 [a] | 50 | 18 | 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-041014-DUP | | |
| **Lab Sample ID:** | MC29684-7 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 75% | 83% | 70-130% |
| 2037-26-5 | Toluene-D8 | 88% | 90% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 90% | 93% | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Result is from Run# 2
(b) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates 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-041014-DUP | | |
| **Lab Sample ID:** | MC29684-7 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | F72373.D | 5 | 04/18/14 | WK | 04/12/14 | OP37586 | MSF3219 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 890 ml | 1.0 ml |
| Run #2 | | |

**ABN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 56 | 14 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 28 | 1.7 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 56 | 4.6 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 56 | 2.2 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | 32.0 | 56 | 3.2 | ug/l | J |
| 51-28-5 | 2,4-Dinitrophenol | ND | 110 | 14 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 56 | 11 | ug/l | |
| 95-48-7 | 2-Methylphenol | 15.9 | 56 | 1.3 | ug/l | J |
| | 3&4-Methylphenol | 38.0 | 56 | 2.6 | ug/l | J |
| 88-75-5 | 2-Nitrophenol | ND | 56 | 16 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 110 | 3.0 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 56 | 6.3 | ug/l | |
| 108-95-2 | Phenol | ND | 28 | 1.7 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 56 | 2.1 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 56 | 0.99 | ug/l | |
| 62-53-3 | Aniline | ND | 56 | 3.6 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 28 | 2.6 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 28 | 3.0 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 56 | 13 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 28 | 1.8 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 56 | 3.1 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 28 | 1.6 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 28 | 2.0 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 28 | 1.9 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 28 | 1.4 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 28 | 1.3 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 56 | 2.6 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 56 | 1.7 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 28 | 1.5 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 11 | 1.5 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 1.8 | 28 | 0.97 | ug/l | JB |
| 117-84-0 | Di-n-octyl phthalate | ND | 28 | 1.6 | 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-041014-DUP | | |
| **Lab Sample ID:** | MC29684-7 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**ABN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 84-66-2 | Diethyl phthalate | ND | 28 | 1.1 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 28 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 11 | 1.9 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 28 | 1.6 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 56 | 7.2 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 28 | 1.7 | ug/l | |
| 78-59-1 | Isophorone | ND | 28 | 2.5 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 56 | 2.2 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 56 | 7.7 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 56 | 12 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 28 | 2.2 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 28 | 5.6 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 28 | 2.3 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 28 | 1.1 | ug/l | |
| 110-86-1 | Pyridine | ND | 56 | 2.9 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 88% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 35% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 90% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 81% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 87% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 100% | | 30-130% |

| 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:** | MW22-ROX-041014-DUP | | |
| **Lab Sample ID:** | MC29684-7 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88597.D | 1 | 04/16/14 | MR | 04/12/14 | OP37587 | MSI3299 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 890 ml | 1.0 ml |
| Run #2 | | |

**BN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 0.12 | 0.11 | 0.077 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.11 | 0.056 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.11 | 0.10 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.056 | 0.022 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.11 | 0.032 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.056 | 0.036 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.11 | 0.030 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.11 | 0.043 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.11 | 0.027 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.11 | 0.036 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.11 | 0.046 | ug/l | |
| 86-73-7 | Fluorene | 0.12 | 0.11 | 0.11 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.11 | 0.034 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | 19.9 | 0.22 | 0.056 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 32.2 | 0.22 | 0.083 | ug/l | |
| 85-01-8 | Phenanthrene | 0.10 | 0.056 | 0.014 | ug/l | |
| 129-00-0 | Pyrene | ND | 0.11 | 0.043 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 70% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 65% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 91% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041014-DUP | | |
| **Lab Sample ID:** | MC29684-7 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89245.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 37.0 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0051 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 152% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 68% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041014-HCL | | |
| **Lab Sample ID:** | MC29684-8 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V29986.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |
| 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 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [a] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-041014-HCL | | |
| **Lab Sample ID:** | MC29684-8 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-041014-HCL | | |
| **Lab Sample ID:** | MC29684-8 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 96% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 87% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 90% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041014-ST | | |
| **Lab Sample ID:** | MC29684-9 | **Date Sampled:** | 04/10/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/11/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89247.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.6 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0052 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 89% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 70% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

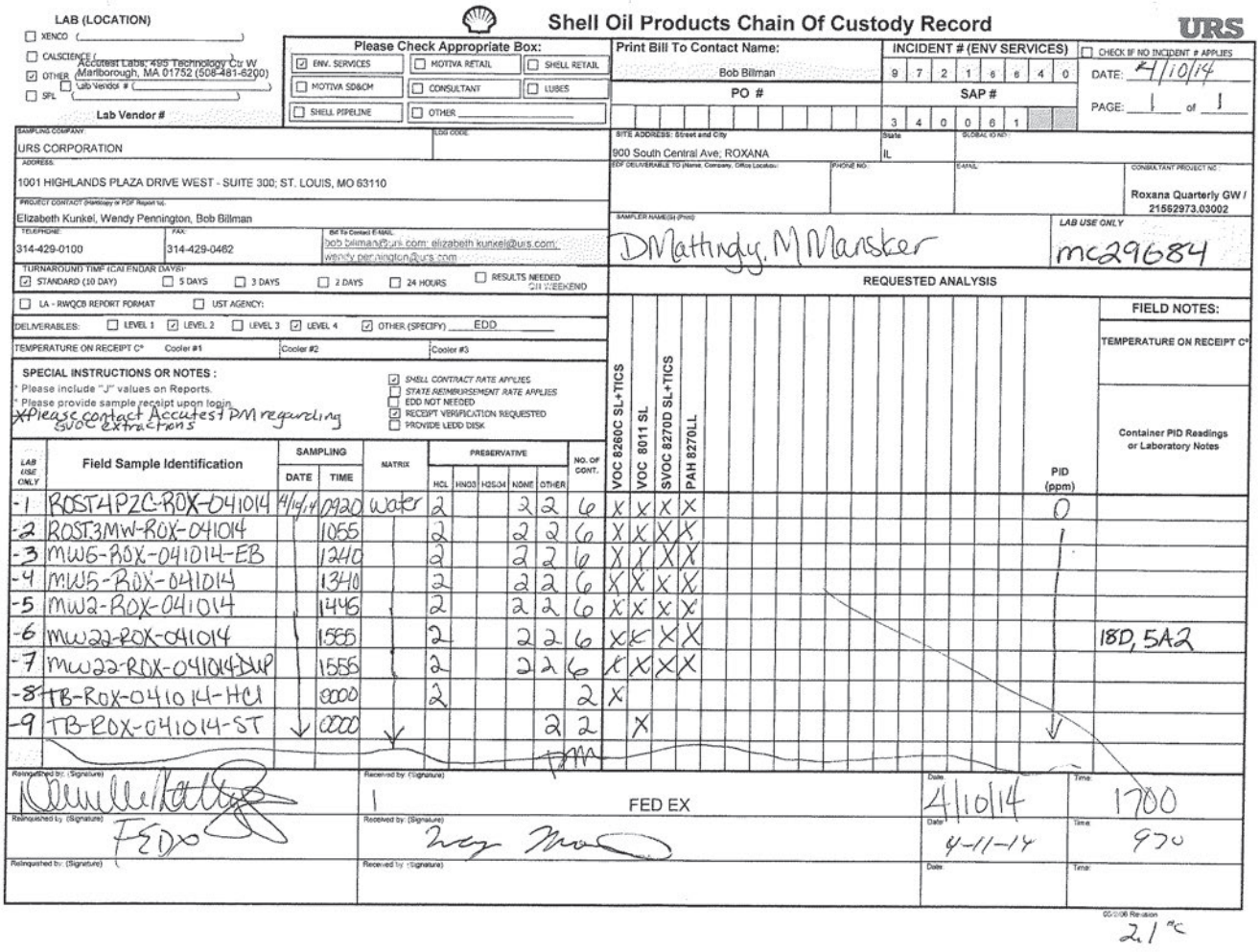
## Misc. Forms



# Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



LAB (LOCATION)
☐ XENCO (_____)
☐ CALSCIENCE (_____)
☑ OTHER Accutest Labs; 495 Technology Ctr W (Marlborough, MA 01752 (508-481-6200)
☐ SPL Lab Vendor # (_____)
Lab Vendor #

Shell Oil Products Chain Of Custody Record

URS

Please Check Appropriate Box:
☑ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SD&CM ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name: Bob Billman
PO #
INCIDENT # (ENV SERVICES): 9 7 2 1 6 6 4 0
SAP #: 3 4 0 0 6 1
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 4/10/14
PAGE: 1 of 1

SAMPLING COMPANY: URS CORPORATION
EDD CODE:
ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300; ST. LOUIS, MO 63110
PROJECT CONTACT (Hardcopy or PDF Report to): Elizabeth Kunkel, Wendy Pennington, Bob Billman
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: bob.billman@urs.com; elizabeth.kunkel@urs.com; wendy.pennington@urs.com
SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA
State: IL
GLOBAL ID NO:
EDF DELIVERABLE TO (Name, Company, Office Location):
PHONE NO:
E-MAIL:
CONSULTANT PROJECT NO.: Roxana Quarterly GW / 21562973.03002
SAMPLER NAME(S) (Print): DMattingly, MMarsicker
LAB USE ONLY: mc29684

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.
XPlease contact Accutest PM regarding SVOC extractions

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD 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 | PID (ppm) | FIELD NOTES: Container PID Readings or Laboratory Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -1 | ROST4P2C-ROX-041014 | 4/10/14 | 0920 | water | 2 | | | 2 | 2 | 6 | X | X | X | X | 0 | |
| -2 | ROST3MW-ROX-041014 | | 1055 | | 2 | | | 2 | 2 | 6 | X | X | X | X | 1 | |
| -3 | MW6-ROX-041014-EB | | 1240 | | 2 | | | 2 | 2 | 6 | X | X | X | X | 1 | |
| -4 | MW5-ROX-041014 | | 1340 | | 2 | | | 2 | 2 | 6 | X | X | X | X | 1 | |
| -5 | MW2-ROX-041014 | | 1445 | | 2 | | | 2 | 2 | 6 | X | X | X | X | 1 | |
| -6 | MW22-ROX-041014 | | 1555 | | 2 | | | 2 | 2 | 6 | X | X | X | X | 1 | 18D, 5A2 |
| -7 | MW22-ROX-041014-DUP | | 1556 | | 2 | | | 2 | 2 | 6 | X | X | X | X | 1 | |
| -8 | TB-ROX-041014-HCl | | 0000 | | 2 | | | | | 2 | X | | | | | |
| -9 | TB-ROX-041014-ST | ↓ | 0000 | ↓ | | | | | 2 | 2 | | X | | | ↓ | |

Relinquished by: (Signature) | Received by: (Signature) | Date | Time
Relinquished by: (Signature) | Received by: (Signature) | Date | Time
Relinquished by: (Signature) | Received by: (Signature) | Date | Time

FED EX
4/10/14 1700
FEDX
4-11-14 930

00/2006 Revision
2.1 °C



MC29684: Chain of Custody
Page 1 of 2

# Accutest Laboratories Sample Receipt Summary

**Accutest Job Number:** MC29684 **Client:** URS **Immediate Client Services Action Required:** No

**Date / Time Received:** 4/11/2014 **Delivery Method:** **Client Service Action Required at Login:** No

**Project:** 900 SOUTH CENTRAL **No. Coolers:** 1 **Airbill #'s:**

| 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. Cooler temp verification: | Infared gun | | |
| 3. Cooler media: | Ice (bag) | | |

| 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





MC29684: Chain of Custody
Page 2 of 2

# Internal Sample Tracking Chronicle

Shell Oil

Job No: MC29684

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample Number | Method | Analyzed | By | Prepped | By | Test Codes |
|---|---|---|---|---|---|---|
| MC29684-1 Collected: 10-APR-14 09:20 By: DMMM Received: 11-APR-14 By: ROST4PZC-ROX-041014 | | | | | | |
| MC29684-1 | SW846 8011 | 15-APR-14 19:44 | SZ | 14-APR-14 | MT | V8011SL |
| MC29684-1 | SW846 8270D BY SIM | 16-APR-14 12:30 | MR | 12-APR-14 | PA | B8270SIMSL |
| MC29684-1 | SW846 8270D | 18-APR-14 10:32 | WK | 12-APR-14 | PA | AB8270SL+ |
| MC29684-1 | SW846 8260C | 19-APR-14 13:06 | AMY | | | V8260SL+ |
| MC29684-2 Collected: 10-APR-14 10:55 By: DMMM Received: 11-APR-14 By: ROST3MW-ROX-041014 | | | | | | |
| MC29684-2 | SW846 8011 | 15-APR-14 20:11 | SZ | 14-APR-14 | MT | V8011SL |
| MC29684-2 | SW846 8270D BY SIM | 16-APR-14 13:10 | MR | 12-APR-14 | PA | B8270SIMSL |
| MC29684-2 | SW846 8270D | 18-APR-14 10:55 | WK | 12-APR-14 | PA | AB8270SL+ |
| MC29684-2 | SW846 8260C | 19-APR-14 13:32 | AMY | | | V8260SL+ |
| MC29684-3 Collected: 10-APR-14 12:40 By: DMMM Received: 11-APR-14 By: MW5-ROX-041014-EB | | | | | | |
| MC29684-3 | SW846 8011 | 15-APR-14 20:37 | SZ | 14-APR-14 | MT | V8011SL |
| MC29684-3 | SW846 8270D BY SIM | 16-APR-14 13:33 | MR | 12-APR-14 | PA | B8270SIMSL |
| MC29684-3 | SW846 8270D | 18-APR-14 11:18 | WK | 12-APR-14 | PA | AB8270SL+ |
| MC29684-3 | SW846 8260C | 19-APR-14 10:55 | AMY | | | V8260SL+ |
| MC29684-4 Collected: 10-APR-14 13:40 By: DMMM Received: 11-APR-14 By: MW5-ROX-041014 | | | | | | |
| MC29684-4 | SW846 8011 | 15-APR-14 21:05 | SZ | 14-APR-14 | MT | V8011SL |
| MC29684-4 | SW846 8270D BY SIM | 16-APR-14 13:58 | MR | 12-APR-14 | PA | B8270SIMSL |
| MC29684-4 | SW846 8270D | 18-APR-14 11:41 | WK | 12-APR-14 | PA | AB8270SL+ |
| MC29684-4 | SW846 8260C | 19-APR-14 13:58 | AMY | | | V8260SL+ |
| MC29684-5 Collected: 10-APR-14 14:45 By: DMMM Received: 11-APR-14 By: MW2-ROX-041014 | | | | | | |
| MC29684-5 | SW846 8011 | 15-APR-14 21:33 | SZ | 14-APR-14 | MT | V8011SL |
| MC29684-5 | SW846 8270D BY SIM | 16-APR-14 14:22 | MR | 12-APR-14 | PA | B8270SIMSL |
| MC29684-5 | SW846 8270D | 18-APR-14 12:05 | WK | 12-APR-14 | PA | AB8270SL+ |
| MC29684-5 | SW846 8260C | 19-APR-14 14:25 | AMY | | | V8260SL+ |
| MC29684-5 | SW846 8260C | 22-APR-14 01:04 | AMY | | | V8260SL+ |

# Internal Sample Tracking Chronicle

Shell Oil

Job No: MC29684

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL



| Sample Number | Method | Analyzed | By | Prepped | By | Test Codes |
|---|---|---|---|---|---|---|
| MC29684-6 Collected: 10-APR-14 15:55 By: DMMM Received: 11-APR-14 By: MW22-ROX-041014 | | | | | | |
| MC29684-6 | SW846 8011 | 15-APR-14 21:59 | SZ | 14-APR-14 | MT | V8011SL |
| MC29684-6 | SW846 8270D BY SIM | 16-APR-14 14:45 | MR | 12-APR-14 | PA | B8270SIMSL |
| MC29684-6 | SW846 8270D | 18-APR-14 12:28 | WK | 12-APR-14 | PA | AB8270SL+ |
| MC29684-6 | SW846 8260C | 19-APR-14 14:51 | AMY | | | V8260SL+ |
| MC29684-6 | SW846 8260C | 22-APR-14 01:30 | AMY | | | V8260SL+ |
| MC29684-7 Collected: 10-APR-14 15:55 By: DMMM Received: 11-APR-14 By: MW22-ROX-041014-DUP | | | | | | |
| MC29684-7 | SW846 8011 | 15-APR-14 22:26 | SZ | 14-APR-14 | MT | V8011SL |
| MC29684-7 | SW846 8270D BY SIM | 16-APR-14 15:08 | MR | 12-APR-14 | PA | B8270SIMSL |
| MC29684-7 | SW846 8270D | 18-APR-14 12:51 | WK | 12-APR-14 | PA | AB8270SL+ |
| MC29684-7 | SW846 8260C | 19-APR-14 15:17 | AMY | | | V8260SL+ |
| MC29684-7 | SW846 8260C | 22-APR-14 01:56 | AMY | | | V8260SL+ |
| MC29684-8 Collected: 10-APR-14 00:00 By: DMMM Received: 11-APR-14 By: TB-ROX-041014-HCL | | | | | | |
| MC29684-8 | SW846 8260C | 19-APR-14 10:29 | AMY | | | V8260SL+ |
| MC29684-9 Collected: 10-APR-14 00:00 By: DMMM Received: 11-APR-14 By: TB-ROX-041014-ST | | | | | | |
| MC29684-9 | SW846 8011 | 15-APR-14 23:19 | SZ | 14-APR-14 | MT | V8011SL |

# SGS Accutest Internal Chain of Custody



**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Received:** 04/11/14



| Sample.Bottle Number | Transfer FROM | Transfer TO | Date/Time | Reason |
|---|---|---|---|---|
| MC29684-1.1 | Walk In Ref #22 | Michael DiBuono | 04/12/14 09:37 | Retrieve from Storage |
| MC29684-1.1 | Michael DiBuono | | 05/15/14 07:58 | Depleted |
| MC29684-1.3 | VOC Ref #5 | Amy Min Yang | 04/19/14 09:17 | Retrieve from Storage |
| MC29684-1.3 | Amy Min Yang | GCMSV | 04/19/14 09:17 | Load on Instrument |
| MC29684-1.3 | GCMSV | Amy Min Yang | 04/21/14 16:46 | Unload from Instrument |
| MC29684-1.3 | Amy Min Yang | VOC Ref #5 | 04/21/14 16:46 | Return to Storage |
| MC29684-1.3 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29684-1.6 | VOC Ref #5 | Marc Tahtamoni | 04/14/14 19:14 | Retrieve from Storage |
| MC29684-1.6 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29684-2.2 | Walk In Ref #22 | Michael DiBuono | 04/12/14 09:37 | Retrieve from Storage |
| MC29684-2.2 | Michael DiBuono | | 05/15/14 07:58 | Depleted |
| MC29684-2.3 | VOC Ref #5 | Amy Min Yang | 04/19/14 09:17 | Retrieve from Storage |
| MC29684-2.3 | Amy Min Yang | GCMSV | 04/19/14 09:17 | Load on Instrument |
| MC29684-2.3 | GCMSV | Amy Min Yang | 04/21/14 16:46 | Unload from Instrument |
| MC29684-2.3 | Amy Min Yang | VOC Ref #5 | 04/21/14 16:46 | Return to Storage |
| MC29684-2.3 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29684-2.6 | VOC Ref #5 | Marc Tahtamoni | 04/14/14 19:14 | Retrieve from Storage |
| MC29684-2.6 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29684-3.1 | Walk In Ref #22 | Michael DiBuono | 04/12/14 09:37 | Retrieve from Storage |
| MC29684-3.1 | Michael DiBuono | | 05/15/14 07:58 | Depleted |
| MC29684-3.4 | VOC Ref #5 | Amy Min Yang | 04/19/14 09:17 | Retrieve from Storage |
| MC29684-3.4 | Amy Min Yang | GCMSV | 04/19/14 09:17 | Load on Instrument |
| MC29684-3.4 | GCMSV | Amy Min Yang | 04/21/14 16:46 | Unload from Instrument |
| MC29684-3.4 | Amy Min Yang | VOC Ref #5 | 04/21/14 16:46 | Return to Storage |
| MC29684-3.4 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29684-3.5 | VOC Ref #5 | Marc Tahtamoni | 04/14/14 19:14 | Retrieve from Storage |
| MC29684-3.5 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29684-4.1 | Walk In Ref #22 | Michael DiBuono | 04/12/14 09:37 | Retrieve from Storage |
| MC29684-4.1 | Michael DiBuono | | 05/15/14 07:58 | Depleted |
| MC29684-4.3 | VOC Ref #5 | Amy Min Yang | 04/19/14 09:17 | Retrieve from Storage |
| MC29684-4.3 | Amy Min Yang | GCMSV | 04/19/14 09:17 | Load on Instrument |
| MC29684-4.3 | GCMSV | Amy Min Yang | 04/21/14 16:46 | Unload from Instrument |
| MC29684-4.3 | Amy Min Yang | VOC Ref #5 | 04/21/14 16:46 | Return to Storage |
| MC29684-4.3 | Scott Parsick | | 06/25/14 13:20 | Disposed |

# SGS Accutest Internal Chain of Custody

**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Received:** 04/11/14



| Sample.Bottle Number | Transfer FROM | Transfer TO | Date/Time | Reason |
|---|---|---|---|---|
| MC29684-4.5 | VOC Ref #5 | Marc Tahtamoni | 04/14/14 19:14 | Retrieve from Storage |
| MC29684-4.5 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29684-5.1 | Walk In Ref #22 | Thomas Abruzzise | 04/15/14 14:51 | Retrieve from Storage |
| MC29684-5.1 | Thomas Abruzzise | Walk In Ref #22 | 04/15/14 16:22 | Return to Storage |
| MC29684-5.1 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29684-5.2 | Walk In Ref #22 | Michael DiBuono | 04/12/14 09:37 | Retrieve from Storage |
| MC29684-5.2 | Michael DiBuono | | 05/15/14 07:58 | Depleted |
| MC29684-5.3 | VOC Ref #5 | Amy Min Yang | 04/21/14 10:48 | Retrieve from Storage |
| MC29684-5.3 | Amy Min Yang | GCMSV | 04/21/14 10:48 | Load on Instrument |
| MC29684-5.3 | GCMSV | Amy Min Yang | 04/22/14 16:22 | Unload from Instrument |
| MC29684-5.3 | Amy Min Yang | VOC Ref #5 | 04/22/14 16:22 | Return to Storage |
| MC29684-5.3 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29684-5.4 | VOC Ref #5 | Amy Min Yang | 04/19/14 09:17 | Retrieve from Storage |
| MC29684-5.4 | Amy Min Yang | GCMSV | 04/19/14 09:17 | Load on Instrument |
| MC29684-5.4 | GCMSV | Amy Min Yang | 04/21/14 16:46 | Unload from Instrument |
| MC29684-5.4 | Amy Min Yang | VOC Ref #5 | 04/21/14 16:46 | Return to Storage |
| MC29684-5.4 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29684-5.6 | VOC Ref #5 | Marc Tahtamoni | 04/14/14 19:14 | Retrieve from Storage |
| MC29684-5.6 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29684-6.1 | Walk In Ref #22 | Thomas Abruzzise | 04/15/14 14:51 | Retrieve from Storage |
| MC29684-6.1 | Thomas Abruzzise | Walk In Ref #22 | 04/15/14 19:48 | Return to Storage |
| MC29684-6.1 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29684-6.2 | Walk In Ref #22 | Michael DiBuono | 04/12/14 09:37 | Retrieve from Storage |
| MC29684-6.2 | Michael DiBuono | | 05/15/14 07:58 | Depleted |
| MC29684-6.3 | VOC Ref #5 | Amy Min Yang | 04/21/14 10:48 | Retrieve from Storage |
| MC29684-6.3 | Amy Min Yang | GCMSV | 04/21/14 10:48 | Load on Instrument |
| MC29684-6.3 | GCMSV | Amy Min Yang | 04/22/14 16:22 | Unload from Instrument |
| MC29684-6.3 | Amy Min Yang | VOC Ref #5 | 04/22/14 16:22 | Return to Storage |
| MC29684-6.3 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29684-6.4 | VOC Ref #5 | Amy Min Yang | 04/19/14 09:17 | Retrieve from Storage |
| MC29684-6.4 | Amy Min Yang | GCMSV | 04/19/14 09:17 | Load on Instrument |
| MC29684-6.4 | GCMSV | Amy Min Yang | 04/21/14 16:46 | Unload from Instrument |
| MC29684-6.4 | Amy Min Yang | VOC Ref #5 | 04/21/14 16:46 | Return to Storage |
| MC29684-6.4 | Scott Parsick | | 06/25/14 13:20 | Disposed |

# SGS Accutest Internal Chain of Custody

**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Received:** 04/11/14



| Sample.Bottle Number | Transfer FROM | Transfer TO | Date/Time | Reason |
|---|---|---|---|---|
| MC29684-6.6 | VOC Ref #5 | Marc Tahtamoni | 04/14/14 19:14 | Retrieve from Storage |
| MC29684-6.6 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29684-7.1 | Walk In Ref #22 | Michael DiBuono | 04/12/14 09:37 | Retrieve from Storage |
| MC29684-7.1 | Michael DiBuono | | 05/15/14 07:58 | Depleted |
| MC29684-7.3 | VOC Ref #5 | Amy Min Yang | 04/19/14 09:17 | Retrieve from Storage |
| MC29684-7.3 | Amy Min Yang | GCMSV | 04/19/14 09:17 | Load on Instrument |
| MC29684-7.3 | GCMSV | Amy Min Yang | 04/21/14 16:46 | Unload from Instrument |
| MC29684-7.3 | Amy Min Yang | VOC Ref #5 | 04/21/14 16:46 | Return to Storage |
| MC29684-7.3 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29684-7.4 | VOC Ref #5 | Amy Min Yang | 04/21/14 10:48 | Retrieve from Storage |
| MC29684-7.4 | Amy Min Yang | GCMSV | 04/21/14 10:48 | Load on Instrument |
| MC29684-7.4 | GCMSV | Amy Min Yang | 04/22/14 16:22 | Unload from Instrument |
| MC29684-7.4 | Amy Min Yang | VOC Ref #5 | 04/22/14 16:22 | Return to Storage |
| MC29684-7.4 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29684-7.6 | VOC Ref #5 | Marc Tahtamoni | 04/14/14 19:14 | Retrieve from Storage |
| MC29684-7.6 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29684-8.1 | VOC Ref #5 | Amy Min Yang | 04/19/14 09:17 | Retrieve from Storage |
| MC29684-8.1 | Amy Min Yang | GCMSV | 04/19/14 09:17 | Load on Instrument |
| MC29684-8.1 | GCMSV | Amy Min Yang | 04/21/14 16:46 | Unload from Instrument |
| MC29684-8.1 | Amy Min Yang | VOC Ref #5 | 04/21/14 16:46 | Return to Storage |
| MC29684-8.1 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29684-9.1 | VOC Ref #5 | Marc Tahtamoni | 04/14/14 19:14 | Retrieve from Storage |
| MC29684-9.1 | Scott Parsick | | 06/25/14 13:20 | Disposed |

## 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:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1121-MB | V29985.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29684-1, MC29684-2, MC29684-3, MC29684-4, MC29684-5, MC29684-6, MC29684-7, MC29684-8

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 2.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |

# Method Blank Summary

**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1121-MB | V29985.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29684-1, MC29684-2, MC29684-3, MC29684-4, MC29684-5, MC29684-6, MC29684-7, MC29684-8

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | ug/l | |

# Method Blank Summary

**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1121-MB | V29985.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29684-1, MC29684-2, MC29684-3, MC29684-4, MC29684-5, MC29684-6, MC29684-7, MC29684-8

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 93% | 70-130% |
| 2037-26-5 | Toluene-D8 | 88% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 92% | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

# Method Blank Summary



**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1123-MB | V30044.D | 1 | 04/21/14 | AMY | n/a | n/a | MSV1123 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29684-5, MC29684-6, MC29684-7

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 97% | 70-130% |
| 2037-26-5 | Toluene-D8 | 88% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 90% | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

# Blank Spike Summary



**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1121-BS | V29982.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29684-1, MC29684-2, MC29684-3, MC29684-4, MC29684-5, MC29684-6, MC29684-7, MC29684-8

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 50 | 66.1 | 132* [a] | 70-130 |
| 107-02-8 | Acrolein | 250 | 418 | 167* [a] | 70-130 |
| 107-13-1 | Acrylonitrile | 50 | 44.9 | 90 | 70-130 |
| 71-43-2 | Benzene | 50 | 49.7 | 99 | 70-130 |
| 108-86-1 | Bromobenzene | 50 | 54.0 | 108 | 70-130 |
| 74-97-5 | Bromochloromethane | 50 | 47.6 | 95 | 70-130 |
| 75-27-4 | Bromodichloromethane | 50 | 51.3 | 103 | 70-130 |
| 75-25-2 | Bromoform | 50 | 44.8 | 90 | 70-130 |
| 74-83-9 | Bromomethane | 50 | 56.1 | 112 | 70-130 |
| 78-93-3 | 2-Butanone (MEK) | 50 | 57.4 | 115 | 70-130 |
| 104-51-8 | n-Butylbenzene | 50 | 55.5 | 111 | 70-130 |
| 135-98-8 | sec-Butylbenzene | 50 | 56.1 | 112 | 70-130 |
| 98-06-6 | tert-Butylbenzene | 50 | 55.9 | 112 | 70-130 |
| 75-15-0 | Carbon disulfide | 50 | 46.6 | 93 | 70-130 |
| 56-23-5 | Carbon tetrachloride | 50 | 59.9 | 120 | 70-130 |
| 108-90-7 | Chlorobenzene | 50 | 51.1 | 102 | 70-130 |
| 75-00-3 | Chloroethane | 50 | 65.0 | 130 | 70-130 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 50 | 34.5 | 69* [a] | 70-130 |
| 67-66-3 | Chloroform | 50 | 48.5 | 97 | 70-130 |
| 74-87-3 | Chloromethane | 50 | 59.9 | 120 | 70-130 |
| 95-49-8 | o-Chlorotoluene | 50 | 52.2 | 104 | 70-130 |
| 106-43-4 | p-Chlorotoluene | 50 | 54.9 | 110 | 70-130 |
| 124-48-1 | Dibromochloromethane | 50 | 48.5 | 97 | 70-130 |
| 95-50-1 | 1,2-Dichlorobenzene | 50 | 50.4 | 101 | 70-130 |
| 541-73-1 | 1,3-Dichlorobenzene | 50 | 51.8 | 104 | 70-130 |
| 106-46-7 | 1,4-Dichlorobenzene | 50 | 52.0 | 104 | 70-130 |
| 75-71-8 | Dichlorodifluoromethane | 50 | 42.4 | 85 | 70-130 |
| 75-34-3 | 1,1-Dichloroethane | 50 | 49.3 | 99 | 70-130 |
| 107-06-2 | 1,2-Dichloroethane | 50 | 51.4 | 103 | 70-130 |
| 75-35-4 | 1,1-Dichloroethene | 50 | 53.0 | 106 | 70-130 |
| 156-59-2 | cis-1,2-Dichloroethene | 50 | 48.7 | 97 | 70-130 |
| 156-60-5 | trans-1,2-Dichloroethene | 50 | 49.0 | 98 | 70-130 |
| 78-87-5 | 1,2-Dichloropropane | 50 | 51.7 | 103 | 70-130 |
| 142-28-9 | 1,3-Dichloropropane | 50 | 50.9 | 102 | 70-130 |
| 594-20-7 | 2,2-Dichloropropane | 50 | 52.2 | 104 | 70-130 |
| 563-58-6 | 1,1-Dichloropropene | 50 | 53.9 | 108 | 70-130 |

* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1121-BS | V29982.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29684-1, MC29684-2, MC29684-3, MC29684-4, MC29684-5, MC29684-6, MC29684-7, MC29684-8

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | 50 | 46.2 | 92 | 70-130 |
| 10061-02-6 | trans-1,3-Dichloropropene | 50 | 59.4 | 119 | 70-130 |
| 123-91-1 | 1,4-Dioxane | 250 | 209 | 84 | 70-130 |
| 97-63-2 | Ethyl methacrylate | 50 | 45.7 | 91 | 77-137 |
| 100-41-4 | Ethylbenzene | 50 | 54.8 | 110 | 70-130 |
| 87-68-3 | Hexachlorobutadiene | 50 | 49.2 | 98 | 70-130 |
| 591-78-6 | 2-Hexanone | 50 | 66.7 | 133* [a] | 70-130 |
| 98-82-8 | Isopropylbenzene | 50 | 55.1 | 110 | 70-130 |
| 99-87-6 | p-Isopropyltoluene | 50 | 56.5 | 113 | 70-130 |
| 1634-04-4 | Methyl Tert Butyl Ether | 50 | 48.2 | 96 | 70-130 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 50 | 49.0 | 98 | 70-130 |
| 74-95-3 | Methylene bromide | 50 | 50.1 | 100 | 70-130 |
| 75-09-2 | Methylene chloride | 50 | 48.1 | 96 | 70-130 |
| 91-20-3 | Naphthalene | 50 | 53.8 | 108 | 70-130 |
| 103-65-1 | n-Propylbenzene | 50 | 54.0 | 108 | 70-130 |
| 100-42-5 | Styrene | 50 | 55.3 | 111 | 70-130 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 50 | 57.0 | 114 | 70-130 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 50 | 53.9 | 108 | 70-130 |
| 127-18-4 | Tetrachloroethene | 50 | 54.2 | 108 | 70-130 |
| 108-88-3 | Toluene | 50 | 53.2 | 106 | 70-130 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 50 | 57.3 | 115 | 70-130 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 50 | 47.0 | 94 | 70-130 |
| 71-55-6 | 1,1,1-Trichloroethane | 50 | 53.8 | 108 | 70-130 |
| 79-00-5 | 1,1,2-Trichloroethane | 50 | 51.7 | 103 | 70-130 |
| 79-01-6 | Trichloroethene | 50 | 49.8 | 100 | 70-130 |
| 75-69-4 | Trichlorofluoromethane | 50 | 60.5 | 121 | 70-130 |
| 96-18-4 | 1,2,3-Trichloropropane | 50 | 52.3 | 105 | 70-130 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 50 | 55.0 | 110 | 70-130 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 50 | 55.7 | 111 | 70-130 |
| 108-05-4 | Vinyl Acetate | 50 | 45.9 | 92 | 70-130 |
| 75-01-4 | Vinyl chloride | 50 | 60.1 | 120 | 70-130 |
| | m,p-Xylene | 100 | 107 | 107 | 70-130 |
| 95-47-6 | o-Xylene | 50 | 53.3 | 107 | 70-130 |
| 1330-20-7 | Xylene (total) | 150 | 160 | 107 | 70-130 |

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1121-BS | V29982.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29684-1, MC29684-2, MC29684-3, MC29684-4, MC29684-5, MC29684-6, MC29684-7, MC29684-8

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 82% | 70-130% |
| 2037-26-5 | Toluene-D8 | 88% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 91% | 70-130% |

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1123-BS | V30042.D | 1 | 04/21/14 | AMY | n/a | n/a | MSV1123 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29684-5, MC29684-6, MC29684-7

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 71-43-2 | Benzene | 50 | 48.0 | 96 | 70-130 |
| 100-41-4 | Ethylbenzene | 50 | 52.6 | 105 | 70-130 |
| 91-20-3 | Naphthalene | 50 | 51.7 | 103 | 70-130 |
| 108-88-3 | Toluene | 50 | 51.9 | 104 | 70-130 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 50 | 51.5 | 103 | 70-130 |
| | m,p-Xylene | 100 | 103 | 103 | 70-130 |
| 95-47-6 | o-Xylene | 50 | 51.2 | 102 | 70-130 |
| 1330-20-7 | Xylene (total) | 150 | 154 | 103 | 70-130 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 84% | 70-130% |
| 2037-26-5 | Toluene-D8 | 89% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 92% | 70-130% |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29640-1MS | V30006.D | 5 | 04/19/14 | AMY | n/a | n/a | MSV1121 |
| MC29640-1MSD | V30007.D | 5 | 04/19/14 | AMY | n/a | n/a | MSV1121 |
| MC29640-1 | V29988.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29684-1, MC29684-2, MC29684-3, MC29684-4, MC29684-5, MC29684-6, MC29684-7, MC29684-8

| CAS No. | Compound | MC29640-1 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 | 185 | 74 | 250 | 207 | 83 | 11 | 70-130/30 |
| 107-02-8 | Acrolein | ND | | 1250 | 1860 | 149* a | 1250 | 1890 | 151* a | 2 | 70-130/30 |
| 107-13-1 | Acrylonitrile | ND | | 250 | 222 | 89 | 250 | 220 | 88 | 1 | 70-130/30 |
| 71-43-2 | Benzene | 0.34 | J | 250 | 241 | 96 | 250 | 244 | 97 | 1 | 70-130/30 |
| 108-86-1 | Bromobenzene | ND | | 250 | 255 | 102 | 250 | 262 | 105 | 3 | 70-130/30 |
| 74-97-5 | Bromochloromethane | ND | | 250 | 231 | 92 | 250 | 233 | 93 | 1 | 70-130/30 |
| 75-27-4 | Bromodichloromethane | ND | | 250 | 225 | 90 | 250 | 226 | 90 | 0 | 70-130/30 |
| 75-25-2 | Bromoform | ND | | 250 | 205 | 82 | 250 | 200 | 80 | 2 | 70-130/30 |
| 74-83-9 | Bromomethane | ND | | 250 | 234 | 94 | 250 | 236 | 94 | 1 | 70-130/30 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 250 | 182 | 73 | 250 | 183 | 73 | 1 | 70-130/30 |
| 104-51-8 | n-Butylbenzene | ND | | 250 | 249 | 100 | 250 | 255 | 102 | 2 | 70-130/30 |
| 135-98-8 | sec-Butylbenzene | ND | | 250 | 256 | 102 | 250 | 267 | 107 | 4 | 70-130/30 |
| 98-06-6 | tert-Butylbenzene | ND | | 250 | 245 | 98 | 250 | 254 | 102 | 4 | 70-130/30 |
| 75-15-0 | Carbon disulfide | ND | | 250 | 218 | 87 | 250 | 219 | 88 | 0 | 70-130/30 |
| 56-23-5 | Carbon tetrachloride | ND | | 250 | 238 | 95 | 250 | 240 | 96 | 1 | 70-130/30 |
| 108-90-7 | Chlorobenzene | ND | | 250 | 248 | 99 | 250 | 248 | 99 | 0 | 70-130/30 |
| 75-00-3 | Chloroethane | ND | | 250 | 282 | 113 | 250 | 281 | 112 | 0 | 70-130/30 |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | | 250 | ND | 0* a | 250 | ND | 0* a | nc | 70-130/30 |
| 67-66-3 | Chloroform | ND | | 250 | 218 | 87 | 250 | 221 | 88 | 1 | 70-130/30 |
| 74-87-3 | Chloromethane | ND | | 250 | 242 | 97 | 250 | 242 | 97 | 0 | 70-130/30 |
| 95-49-8 | o-Chlorotoluene | ND | | 250 | 244 | 98 | 250 | 250 | 100 | 2 | 70-130/30 |
| 106-43-4 | p-Chlorotoluene | ND | | 250 | 248 | 99 | 250 | 253 | 101 | 2 | 70-130/30 |
| 124-48-1 | Dibromochloromethane | ND | | 250 | 227 | 91 | 250 | 222 | 89 | 2 | 70-130/30 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 250 | 226 | 90 | 250 | 239 | 96 | 6 | 70-130/30 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 250 | 239 | 96 | 250 | 245 | 98 | 2 | 70-130/30 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 250 | 239 | 96 | 250 | 247 | 99 | 3 | 70-130/30 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 250 | 160 | 64* a | 250 | 160 | 64* a | 0 | 70-130/30 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 250 | 230 | 92 | 250 | 234 | 94 | 2 | 70-130/30 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 250 | 219 | 88 | 250 | 218 | 87 | 0 | 70-130/30 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 250 | 245 | 98 | 250 | 249 | 100 | 2 | 70-130/30 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 250 | 236 | 94 | 250 | 238 | 95 | 1 | 70-130/30 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 250 | 233 | 93 | 250 | 235 | 94 | 1 | 70-130/30 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 250 | 253 | 101 | 250 | 256 | 102 | 1 | 70-130/30 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 250 | 250 | 100 | 250 | 246 | 98 | 2 | 70-130/30 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 250 | 188 | 75 | 250 | 188 | 75 | 0 | 70-130/30 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 250 | 243 | 97 | 250 | 244 | 98 | 0 | 70-130/30 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29640-1MS | V30006.D | 5 | 04/19/14 | AMY | n/a | n/a | MSV1121 |
| MC29640-1MSD | V30007.D | 5 | 04/19/14 | AMY | n/a | n/a | MSV1121 |
| MC29640-1 | V29988.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29684-1, MC29684-2, MC29684-3, MC29684-4, MC29684-5, MC29684-6, MC29684-7, MC29684-8

| CAS No. | Compound | MC29640-1 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 | 205 | 82 | 250 | 205 | 82 | 0 | 70-130/30 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 250 | 268 | 107 | 250 | 267 | 107 | 0 | 70-130/30 |
| 123-91-1 | 1,4-Dioxane | ND | | 1250 | 802 | 64* [a] | 1250 | 958 | 77 | 18 | 70-130/30 |
| 97-63-2 | Ethyl methacrylate | ND | | 250 | 232 | 93 | 250 | 225 | 90 | 3 | 72-139/30 |
| 100-41-4 | Ethylbenzene | ND | | 250 | 265 | 106 | 250 | 264 | 106 | 0 | 70-130/30 |
| 87-68-3 | Hexachlorobutadiene | ND | | 250 | 207 | 83 | 250 | 236 | 94 | 13 | 70-130/30 |
| 591-78-6 | 2-Hexanone | ND | | 250 | 197 | 79 | 250 | 191 | 76 | 3 | 70-130/30 |
| 98-82-8 | Isopropylbenzene | ND | | 250 | 260 | 104 | 250 | 268 | 107 | 3 | 70-130/30 |
| 99-87-6 | p-Isopropyltoluene | ND | | 250 | 258 | 103 | 250 | 267 | 107 | 3 | 70-130/30 |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | | 250 | 229 | 92 | 250 | 227 | 91 | 1 | 70-130/30 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 250 | 223 | 89 | 250 | 218 | 87 | 2 | 70-130/30 |
| 74-95-3 | Methylene bromide | ND | | 250 | 232 | 93 | 250 | 233 | 93 | 0 | 70-130/30 |
| 75-09-2 | Methylene chloride | ND | | 250 | 233 | 93 | 250 | 233 | 93 | 0 | 70-130/30 |
| 91-20-3 | Naphthalene | ND | | 250 | 156 | 62* [a] | 250 | 251 | 100 | 47* [b] | 70-130/30 |
| 103-65-1 | n-Propylbenzene | ND | | 250 | 251 | 100 | 250 | 256 | 102 | 2 | 70-130/30 |
| 100-42-5 | Styrene | ND | | 250 | 267 | 107 | 250 | 267 | 107 | 0 | 70-130/30 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 250 | 266 | 106 | 250 | 266 | 106 | 0 | 70-130/30 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 250 | 256 | 102 | 250 | 266 | 106 | 4 | 70-130/30 |
| 127-18-4 | Tetrachloroethene | ND | | 250 | 256 | 102 | 250 | 256 | 102 | 0 | 70-130/30 |
| 108-88-3 | Toluene | ND | | 250 | 259 | 104 | 250 | 260 | 104 | 0 | 70-130/30 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 250 | 161 | 64* [a] | 250 | 251 | 100 | 44* [b] | 70-130/30 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 250 | 177 | 71 | 250 | 222 | 89 | 23 | 70-130/30 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 250 | 230 | 92 | 250 | 231 | 92 | 0 | 70-130/30 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 250 | 249 | 100 | 250 | 249 | 100 | 0 | 70-130/30 |
| 79-01-6 | Trichloroethene | ND | | 250 | 232 | 93 | 250 | 234 | 94 | 1 | 70-130/30 |
| 75-69-4 | Trichlorofluoromethane | ND | | 250 | 225 | 90 | 250 | 225 | 90 | 0 | 70-130/30 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 250 | 228 | 91 | 250 | 230 | 92 | 1 | 70-130/30 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 250 | 255 | 102 | 250 | 263 | 105 | 3 | 70-130/30 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 250 | 257 | 103 | 250 | 266 | 106 | 3 | 70-130/30 |
| 108-05-4 | Vinyl Acetate | ND | | 250 | 214 | 86 | 250 | 214 | 86 | 0 | 70-130/30 |
| 75-01-4 | Vinyl chloride | ND | | 250 | 259 | 104 | 250 | 260 | 104 | 0 | 70-130/30 |
| | m,p-Xylene | ND | | 500 | 531 | 106 | 500 | 531 | 106 | 0 | 70-130/30 |
| 95-47-6 | o-Xylene | ND | | 250 | 261 | 104 | 250 | 263 | 105 | 1 | 70-130/30 |
| 1330-20-7 | Xylene (total) | ND | | 750 | 793 | 106 | 750 | 794 | 106 | 0 | 70-130/30 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29640-1MS | V30006.D | 5 | 04/19/14 | AMY | n/a | n/a | MSV1121 |
| MC29640-1MSD | V30007.D | 5 | 04/19/14 | AMY | n/a | n/a | MSV1121 |
| MC29640-1 | V29988.D | 1 | 04/19/14 | AMY | n/a | n/a | MSV1121 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29684-1, MC29684-2, MC29684-3, MC29684-4, MC29684-5, MC29684-6, MC29684-7, MC29684-8

| CAS No. | Surrogate Recoveries | MS | MSD | MC29640-1 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 79% | 79% | 98% | 70-130% |
| 2037-26-5 | Toluene-D8 | 88% | 88% | 87% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 91% | 90% | 89% | 70-130% |

(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:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29893-1MS | V30047.D | 5 | 04/22/14 | AMY | n/a | n/a | MSV1123 |
| MC29893-1MSD | V30048.D | 5 | 04/22/14 | AMY | n/a | n/a | MSV1123 |
| MC29893-1 | V30046.D | 1 | 04/21/14 | AMY | n/a | n/a | MSV1123 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29684-5, MC29684-6, MC29684-7

| CAS No. | Compound | MC29893-1 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 | 265 | 106 | 250 | 250 | 100 | 6 | 70-130/30 |
| 100-41-4 | Ethylbenzene | ND | | 250 | 291 | 116 | 250 | 279 | 112 | 4 | 70-130/30 |
| 91-20-3 | Naphthalene | ND | | 250 | 144 | 58* [a] | 250 | 248 | 99 | 53* [b] | 70-130/30 |
| 108-88-3 | Toluene | ND | | 250 | 287 | 115 | 250 | 272 | 109 | 5 | 70-130/30 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 250 | 274 | 110 | 250 | 267 | 107 | 3 | 70-130/30 |
| | m,p-Xylene | ND | | 500 | 559 | 112 | 500 | 542 | 108 | 3 | 70-130/30 |
| 95-47-6 | o-Xylene | ND | | 250 | 277 | 111 | 250 | 269 | 108 | 3 | 70-130/30 |
| 1330-20-7 | Xylene (total) | ND | | 750 | 836 | 111 | 750 | 811 | 108 | 3 | 70-130/30 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29893-1 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 86% | 85% | 101% | 70-130% |
| 2037-26-5 | Toluene-D8 | 91% | 89% | 89% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 89% | 90% | 91% | 70-130% |

(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.

# Volatile Internal Standard Area Summary



**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSV1121-CC1058 | **Injection Date:** | 04/19/14 |
| **Lab File ID:** | V29981.D | **Injection Time:** | 08:18 |
| **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 | 303408 | 6.54 | 403111 | 7.72 | 192622 | 11.07 | 204497 | 13.28 | 45385 | 3.49 |
| Upper Limit [a] | 606816 | 7.04 | 806222 | 8.22 | 385244 | 11.57 | 408994 | 13.78 | 90770 | 3.99 |
| Lower Limit [b] | 151704 | 6.04 | 201556 | 7.22 | 96311 | 10.57 | 102249 | 12.78 | 22693 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| MSV1121-BS | 297302 | 6.53 | 397730 | 7.72 | 189553 | 11.07 | 199177 | 13.28 | 44281 | 3.48 |
| MSV1121-MB | 234115 | 6.54 | 333256 | 7.72 | 169551 | 11.07 | 162070 | 13.28 | 34600 | 3.49 |
| MC29684-8 | 207308 | 6.54 | 295276 | 7.72 | 150238 | 11.07 | 143416 | 13.28 | 30387 | 3.48 |
| MC29684-3 | 192458 | 6.53 | 274580 | 7.72 | 139981 | 11.07 | 133045 | 13.28 | 32995 | 3.48 |
| MC29640-1 | 198583 | 6.53 | 283208 | 7.72 | 144102 | 11.07 | 140364 | 13.28 | 33711 | 3.48 |
| ZZZZZZ | 181600 | 6.53 | 260775 | 7.72 | 136614 | 11.07 | 132852 | 13.28 | 30345 | 3.48 |
| ZZZZZZ | 180258 | 6.53 | 258841 | 7.72 | 134167 | 11.07 | 126262 | 13.28 | 30040 | 3.48 |
| ZZZZZZ | 235988 | 6.53 | 290904 | 7.72 | 148625 | 11.07 | 142075 | 13.28 | 40896 | 3.49 |
| MC29684-1 | 217533 | 6.53 | 281991 | 7.72 | 144893 | 11.07 | 140975 | 13.28 | 40988 | 3.48 |
| MC29684-2 | 240601 | 6.53 | 299561 | 7.72 | 145307 | 11.07 | 147815 | 13.28 | 67573 | 3.48 |
| MC29684-4 | 257322 | 6.54 | 315566 | 7.72 | 168172 | 11.07 | 166111 | 13.28 | 49190 | 3.49 |
| MC29684-5 | 325444 | 6.54 | 437917 | 7.72 | 214625 | 11.07 | 209094 | 13.28 | 117146[c] | 3.51 |
| MC29684-6 | 377310 | 6.54 | 577770 | 7.73 | 274416 | 11.07 | 325618 | 13.28 | 136812[c] | 3.51 |
| MC29684-7 | 450636 | 6.54 | 693943 | 7.73 | 326250 | 11.07 | 379848 | 13.28 | 161653[c] | 3.51 |
| ZZZZZZ | 314296 | 6.53 | 447566 | 7.72 | 206872 | 11.07 | 207372 | 13.28 | 52756 | 3.48 |
| ZZZZZZ | 357126 | 6.53 | 488523 | 7.72 | 237912 | 11.06 | 237896 | 13.28 | 65954 | 3.49 |
| ZZZZZZ | 405848 | 6.53 | 555886 | 7.72 | 248663 | 11.06 | 243739 | 13.28 | 90315 | 3.50 |
| ZZZZZZ | 336958 | 6.53 | 464213 | 7.71 | 216490 | 11.06 | 226853 | 13.28 | 47274 | 3.48 |
| MC29640-1MS | 386838 | 6.53 | 527120 | 7.72 | 243278 | 11.06 | 256191 | 13.28 | 55439 | 3.48 |
| MC29640-1MSD | 381357 | 6.53 | 518387 | 7.72 | 239500 | 11.06 | 245390 | 13.28 | 51334 | 3.48 |

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:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSV1123-CC1058 | **Injection Date:** | 04/21/14 |
| **Lab File ID:** | V30041.D | **Injection Time:** | 21:11 |
| **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 | 267879 | 6.56 | 355556 | 7.74 | 173294 | 11.08 | 188388 | 13.29 | 42350 | 3.51 |
| Upper Limit [a] | 535758 | 7.06 | 711112 | 8.24 | 346588 | 11.58 | 376776 | 13.79 | 84700 | 4.01 |
| Lower Limit [b] | 133940 | 6.06 | 177778 | 7.24 | 86647 | 10.58 | 94194 | 12.79 | 21175 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| MSV1123-BS | 274572 | 6.56 | 364363 | 7.74 | 177597 | 11.08 | 192303 | 13.29 | 44421 | 3.50 |
| MSV1123-MB | 190260 | 6.56 | 272744 | 7.74 | 141057 | 11.08 | 135309 | 13.29 | 33168 | 3.50 |
| ZZZZZZ | 181025 | 6.56 | 257729 | 7.74 | 137501 | 11.08 | 136177 | 13.30 | 31762 | 3.50 |
| MC29893-1 | 178762 | 6.56 | 259819 | 7.74 | 139495 | 11.08 | 134767 | 13.30 | 31373 | 3.50 |
| MC29893-1MS | 231450 | 6.56 | 301072 | 7.74 | 152012 | 11.08 | 168202 | 13.29 | 34449 | 3.50 |
| MC29893-1MSD | 260769 | 6.56 | 349983 | 7.75 | 169544 | 11.08 | 183476 | 13.30 | 39531 | 3.51 |
| MC29684-5 | 277355 | 6.57 | 360152 | 7.75 | 185573 | 11.08 | 186545 | 13.30 | 45603 | 3.52 |
| MC29684-6 | 247657 | 6.57 | 328606 | 7.75 | 166650 | 11.08 | 175314 | 13.30 | 39856 | 3.51 |
| MC29684-7 | 252873 | 6.57 | 338602 | 7.75 | 172306 | 11.09 | 177904 | 13.30 | 40365 | 3.51 |
| ZZZZZZ | 247244 | 6.57 | 309807 | 7.75 | 156700 | 11.09 | 170175 | 13.30 | 39388 | 3.51 |
| ZZZZZZ | 263926 | 6.57 | 332109 | 7.75 | 167696 | 11.09 | 176931 | 13.30 | 42758 | 3.51 |
| ZZZZZZ | 224682 | 6.57 | 318699 | 7.75 | 164369 | 11.09 | 158921 | 13.30 | 36993 | 3.51 |
| MC29893-3 | 210498 | 6.57 | 295486 | 7.75 | 157486 | 11.09 | 148877 | 13.30 | 35764 | 3.51 |
| ZZZZZZ | 178593 | 6.57 | 250172 | 7.75 | 137765 | 11.09 | 132893 | 13.30 | 30884 | 3.50 |
| ZZZZZZ | 233192 | 6.57 | 294642 | 7.75 | 165280 | 11.09 | 164153 | 13.30 | 45595 | 3.51 |
| ZZZZZZ | 221631 | 6.57 | 313354 | 7.75 | 163666 | 11.09 | 159043 | 13.30 | 42091 | 3.51 |
| ZZZZZZ | 266804 | 6.57 | 362585 | 7.75 | 195572 | 11.09 | 201319 | 13.30 | 50232 | 3.51 |
| ZZZZZZ | 334143 | 6.57 | 455782 | 7.75 | 211686 | 11.09 | 215861 | 13.30 | 50306 | 3.51 |
| ZZZZZZ | 329680 | 6.57 | 449946 | 7.75 | 220904 | 11.09 | 218453 | 13.30 | 46703 | 3.51 |
| ZZZZZZ | 374344 | 6.57 | 495664 | 7.75 | 249465 | 11.09 | 249028 | 13.30 | 52879 | 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.

# Volatile Surrogate Recovery Summary



**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 |
|---|---|---|---|---|
| MC29684-1 | V29992.D | 87 | 93 | 92 |
| MC29684-2 | V29993.D | 77 | 93 | 89 |
| MC29684-3 | V29987.D | 94 | 87 | 91 |
| MC29684-4 | V29994.D | 80 | 93 | 92 |
| MC29684-5 | V30049.D | 79 | 92 | 92 |
| MC29684-5 | V29995.D | 75 | 90 | 96 |
| MC29684-6 | V30050.D | 83 | 89 | 92 |
| MC29684-6 | V29996.D | 79 | 89 | 99 |
| MC29684-7 | V30051.D | 83 | 90 | 93 |
| MC29684-7 | V29997.D | 75 | 88 | 90 |
| MC29684-8 | V29986.D | 96 | 87 | 90 |
| MC29640-1MS | V30006.D | 79 | 88 | 91 |
| MC29640-1MSD | V30007.D | 79 | 88 | 90 |
| MC29893-1MS | V30047.D | 86 | 91 | 89 |
| MC29893-1MSD | V30048.D | 85 | 89 | 90 |
| MSV1121-BS | V29982.D | 82 | 88 | 91 |
| MSV1121-MB | V29985.D | 93 | 88 | 92 |
| MSV1123-BS | V30042.D | 84 | 89 | 92 |
| MSV1123-MB | V30044.D | 97 | 88 | 90 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = Dibromofluoromethane | 70-130% |
| S2 = Toluene-D8 | 70-130% |
| S3 = 4-Bromofluorobenzene | 70-130% |

## GC/MS Semi-volatiles

7

### 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:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37586-MB | F72362.D | 1 | 04/18/14 | WK | 04/12/14 | OP37586 | MSF3219 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29684-1, MC29684-2, MC29684-3, MC29684-4, MC29684-5, MC29684-6, MC29684-7

| 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 | 0.31 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 10 | 0.83 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 10 | 0.40 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 10 | 0.56 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 20 | 2.5 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 10 | 0.23 | ug/l | |
| | 3&4-Methylphenol | ND | 10 | 0.47 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 10 | 2.9 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 20 | 0.53 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 10 | 1.1 | ug/l | |
| 108-95-2 | Phenol | ND | 5.0 | 0.30 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 10 | 0.37 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 10 | 0.18 | ug/l | |
| 62-53-3 | Aniline | ND | 10 | 0.64 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.0 | 0.47 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.0 | 0.53 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 10 | 2.3 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.0 | 0.31 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 10 | 0.56 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.0 | 0.29 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.0 | 0.35 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.0 | 0.33 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.0 | 0.25 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.0 | 0.24 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 10 | 0.46 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 10 | 0.30 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.0 | 0.27 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.0 | 0.26 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.54 | 5.0 | 0.17 | ug/l | J |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.0 | 0.28 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.0 | 0.20 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.0 | 0.34 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 2.8 | 2.0 | 0.33 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.0 | 0.29 | ug/l | |

# Method Blank Summary

**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37586-MB | F72362.D | 1 | 04/18/14 | WK | 04/12/14 | OP37586 | MSF3219 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29684-1, MC29684-2, MC29684-3, MC29684-4, MC29684-5, MC29684-6, MC29684-7

| 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 | 0.30 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.0 | 0.45 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 0.40 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 1.4 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 2.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.0 | 0.39 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.0 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.0 | 0.40 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.0 | 0.19 | ug/l | |
| 110-86-1 | Pyridine | ND | 10 | 0.52 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 46% | 15-110% |
| 4165-62-2 | Phenol-d5 | 29% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 74% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 70% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 71% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 88% | 30-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile | | 0 | ug/l | |

# Method Blank Summary



**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37587-MB | I88586.D | 1 | 04/16/14 | MR | 04/12/14 | OP37587 | MSI3299 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D BY SIM

MC29684-1, MC29684-2, MC29684-3, MC29684-4, MC29684-5, MC29684-6, MC29684-7



| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | ND | 0.10 | 0.069 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.10 | 0.050 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.10 | 0.092 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.050 | 0.020 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.10 | 0.029 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.050 | 0.032 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.10 | 0.027 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.10 | 0.039 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.10 | 0.024 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.10 | 0.032 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.10 | 0.041 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.10 | 0.099 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.10 | 0.031 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.20 | 0.050 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.20 | 0.074 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 0.050 | 0.013 | ug/l | |
| 129-00-0 | Pyrene | ND | 0.10 | 0.038 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 35% | 15-110% |
| 4165-62-2 | Phenol-d5 | 23% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 70% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 67% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 62% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 90% | 30-130% |

# Blank Spike Summary



**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37586-BS | F72363.D | 1 | 04/18/14 | WK | 04/12/14 | OP37586 | MSF3219 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29684-1, MC29684-2, MC29684-3, MC29684-4, MC29684-5, MC29684-6, MC29684-7

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | 50 | 11.1 | 22* [a] | 30-130 |
| 95-57-8 | 2-Chlorophenol | 50 | 37.0 | 74 | 30-130 |
| 59-50-7 | 4-Chloro-3-methyl phenol | 50 | 36.6 | 73 | 30-130 |
| 120-83-2 | 2,4-Dichlorophenol | 50 | 38.3 | 77 | 30-130 |
| 105-67-9 | 2,4-Dimethylphenol | 50 | 29.2 | 58 | 30-130 |
| 51-28-5 | 2,4-Dinitrophenol | 50 | 27.7 | 55 | 30-130 |
| 534-52-1 | 4,6-Dinitro-o-cresol | 50 | 39.8 | 80 | 30-130 |
| 95-48-7 | 2-Methylphenol | 50 | 32.6 | 65 | 30-130 |
| | 3&4-Methylphenol | 100 | 58.6 | 59 | 30-130 |
| 88-75-5 | 2-Nitrophenol | 50 | 40.5 | 81 | 30-130 |
| 100-02-7 | 4-Nitrophenol | 50 | 14.9 | 30 | 30-130 |
| 87-86-5 | Pentachlorophenol | 50 | 35.7 | 71 | 30-130 |
| 108-95-2 | Phenol | 50 | 16.7 | 33 | 30-130 |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | 41.8 | 84 | 30-130 |
| 88-06-2 | 2,4,6-Trichlorophenol | 50 | 40.9 | 82 | 30-130 |
| 62-53-3 | Aniline | 50 | 29.0 | 58 | 40-140 |
| 101-55-3 | 4-Bromophenyl phenyl ether | 50 | 49.6 | 99 | 40-140 |
| 85-68-7 | Butyl benzyl phthalate | 50 | 47.5 | 95 | 40-140 |
| 100-51-6 | Benzyl Alcohol | 50 | 33.6 | 67 | 40-140 |
| 91-58-7 | 2-Chloronaphthalene | 50 | 47.2 | 94 | 40-140 |
| 106-47-8 | 4-Chloroaniline | 50 | 38.3 | 77 | 40-140 |
| 111-91-1 | bis(2-Chloroethoxy)methane | 50 | 45.6 | 91 | 40-140 |
| 111-44-4 | bis(2-Chloroethyl)ether | 50 | 45.6 | 91 | 40-140 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 50 | 50.5 | 101 | 40-140 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 50 | 45.5 | 91 | 40-140 |
| 122-66-7 | 1,2-Diphenylhydrazine | 50 | 48.0 | 96 | 40-140 |
| 121-14-2 | 2,4-Dinitrotoluene | 50 | 46.3 | 93 | 40-140 |
| 606-20-2 | 2,6-Dinitrotoluene | 50 | 48.1 | 96 | 40-140 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 50 | 45.0 | 90 | 40-140 |
| 132-64-9 | Dibenzofuran | 50 | 43.3 | 87 | 40-140 |
| 84-74-2 | Di-n-butyl phthalate | 50 | 45.6 | 91 | 40-140 |
| 117-84-0 | Di-n-octyl phthalate | 50 | 48.8 | 98 | 40-140 |
| 84-66-2 | Diethyl phthalate | 50 | 46.3 | 93 | 40-140 |
| 131-11-3 | Dimethyl phthalate | 50 | 47.3 | 95 | 40-140 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 50 | 49.3 | 99 | 40-140 |
| 118-74-1 | Hexachlorobenzene | 50 | 48.4 | 97 | 40-140 |

* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37586-BS | F72363.D | 1 | 04/18/14 | WK | 04/12/14 | OP37586 | MSF3219 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29684-1, MC29684-2, MC29684-3, MC29684-4, MC29684-5, MC29684-6, MC29684-7

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 77-47-4 | Hexachlorocyclopentadiene | 50 | 22.7 | 45 | 40-140 |
| 67-72-1 | Hexachloroethane | 50 | 26.0 | 52 | 40-140 |
| 78-59-1 | Isophorone | 50 | 40.0 | 80 | 40-140 |
| 88-74-4 | 2-Nitroaniline | 50 | 47.2 | 94 | 40-140 |
| 99-09-2 | 3-Nitroaniline | 50 | 43.8 | 88 | 40-140 |
| 100-01-6 | 4-Nitroaniline | 50 | 43.9 | 88 | 40-140 |
| 98-95-3 | Nitrobenzene | 50 | 43.5 | 87 | 40-140 |
| 62-75-9 | n-Nitrosodimethylamine | 50 | 30.1 | 60 | 40-140 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 50 | 44.8 | 90 | 40-140 |
| 86-30-6 | N-Nitrosodiphenylamine | 50 | 45.6 | 91 | 40-140 |
| 110-86-1 | Pyridine | 50 | 26.5 | 53 | 40-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 52% | 15-110% |
| 4165-62-2 | Phenol-d5 | 33% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 86% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 76% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 78% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 88% | 30-130% |

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

# Blank Spike Summary



Job Number: MC29684
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37587-BS | I88587.D | 1 | 04/16/14 | MR | 04/12/14 | OP37587 | MSI3299 |

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC29684-1, MC29684-2, MC29684-3, MC29684-4, MC29684-5, MC29684-6, MC29684-7

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 50 | 39.2 | 78 | 40-140 |
| 208-96-8 | Acenaphthylene | 50 | 35.9 | 72 | 40-140 |
| 120-12-7 | Anthracene | 50 | 39.8 | 80 | 40-140 |
| 56-55-3 | Benzo(a)anthracene | 50 | 43.6 | 87 | 40-140 |
| 50-32-8 | Benzo(a)pyrene | 50 | 41.2 | 82 | 40-140 |
| 205-99-2 | Benzo(b)fluoranthene | 50 | 43.2 | 86 | 40-140 |
| 191-24-2 | Benzo(g,h,i)perylene | 50 | 47.2 | 94 | 40-140 |
| 207-08-9 | Benzo(k)fluoranthene | 50 | 44.6 | 89 | 40-140 |
| 218-01-9 | Chrysene | 50 | 41.8 | 84 | 40-140 |
| 53-70-3 | Dibenzo(a,h)anthracene | 50 | 49.8 | 100 | 40-140 |
| 206-44-0 | Fluoranthene | 50 | 41.5 | 83 | 40-140 |
| 86-73-7 | Fluorene | 50 | 42.5 | 85 | 40-140 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 50 | 48.1 | 96 | 40-140 |
| 90-12-0 | 1-Methylnaphthalene | 50 | 35.8 | 72 | 40-140 |
| 91-57-6 | 2-Methylnaphthalene | 50 | 34.9 | 70 | 40-140 |
| 85-01-8 | Phenanthrene | 50 | 40.3 | 81 | 40-140 |
| 129-00-0 | Pyrene | 50 | 41.5 | 83 | 40-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 41% | 15-110% |
| 4165-62-2 | Phenol-d5 | 26% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 82% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 73% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 68% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 86% | 30-130% |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37586-MS | F72364.D | 1 | 04/18/14 | WK | 04/12/14 | OP37586 | MSF3219 |
| OP37586-MSD | F72365.D | 1 | 04/18/14 | WK | 04/12/14 | OP37586 | MSF3219 |
| MC29400-1 | F72366.D | 1 | 04/18/14 | WK | 04/12/14 | OP37586 | MSF3219 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29684-1, MC29684-2, MC29684-3, MC29684-4, MC29684-5, MC29684-6, MC29684-7



| CAS No. | Compound | MC29400-1 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 | | 50 | 8.8 | 18* [a] | 50 | 10.3 | 21* [a] | 16 | 30-130/20 |
| 95-57-8 | 2-Chlorophenol | ND | | 50 | 32.1 | 64 | 50 | 35.0 | 70 | 9 | 30-130/20 |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | | 50 | 32.1 | 64 | 50 | 33.6 | 67 | 5 | 30-130/20 |
| 120-83-2 | 2,4-Dichlorophenol | ND | | 50 | 33.9 | 68 | 50 | 36.0 | 72 | 6 | 30-130/20 |
| 105-67-9 | 2,4-Dimethylphenol | ND | | 50 | 25.9 | 52 | 50 | 20.0 | 40 | 26* [b] | 30-130/20 |
| 51-28-5 | 2,4-Dinitrophenol | ND | | 50 | 26.9 | 54 | 50 | 28.2 | 56 | 5 | 30-130/20 |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | | 50 | 38.3 | 77 | 50 | 39.7 | 79 | 4 | 30-130/20 |
| 95-48-7 | 2-Methylphenol | ND | | 50 | 28.6 | 57 | 50 | 29.4 | 59 | 3 | 30-130/20 |
| | 3&4-Methylphenol | ND | | 100 | 49.8 | 50 | 100 | 52.2 | 52 | 5 | 30-130/20 |
| 88-75-5 | 2-Nitrophenol | ND | | 50 | 36.9 | 74 | 50 | 39.0 | 78 | 6 | 30-130/20 |
| 100-02-7 | 4-Nitrophenol | ND | | 50 | 13.5 | 27* [c] | 50 | 14.1 | 28* [c] | 4 | 30-130/20 |
| 87-86-5 | Pentachlorophenol | ND | | 50 | 33.9 | 68 | 50 | 34.1 | 68 | 1 | 30-130/20 |
| 108-95-2 | Phenol | ND | | 50 | 14.3 | 29* [c] | 50 | 15.4 | 31 | 7 | 30-130/20 |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | | 50 | 36.9 | 74 | 50 | 39.1 | 78 | 6 | 30-130/20 |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | | 50 | 36.5 | 73 | 50 | 38.7 | 77 | 6 | 30-130/20 |
| 62-53-3 | Aniline | ND | | 50 | 26.9 | 54 | 50 | 27.7 | 55 | 3 | 40-140/20 |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | | 50 | 47.8 | 96 | 50 | 48.3 | 97 | 1 | 40-140/20 |
| 85-68-7 | Butyl benzyl phthalate | ND | | 50 | 48.3 | 97 | 50 | 48.3 | 97 | 0 | 40-140/20 |
| 100-51-6 | Benzyl Alcohol | ND | | 50 | 30.4 | 61 | 50 | 32.3 | 65 | 6 | 40-140/20 |
| 91-58-7 | 2-Chloronaphthalene | ND | | 50 | 42.9 | 86 | 50 | 45.2 | 90 | 5 | 40-140/20 |
| 106-47-8 | 4-Chloroaniline | ND | | 50 | 36.0 | 72 | 50 | 36.8 | 74 | 2 | 40-140/20 |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | | 50 | 42.1 | 84 | 50 | 44.2 | 88 | 5 | 40-140/20 |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | | 50 | 41.7 | 83 | 50 | 44.0 | 88 | 5 | 40-140/20 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | | 50 | 47.0 | 94 | 50 | 49.2 | 98 | 5 | 40-140/20 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | | 50 | 43.5 | 87 | 50 | 43.8 | 88 | 1 | 40-140/20 |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | | 50 | 45.4 | 91 | 50 | 47.4 | 95 | 4 | 40-140/20 |
| 121-14-2 | 2,4-Dinitrotoluene | ND | | 50 | 45.7 | 91 | 50 | 45.3 | 91 | 1 | 40-140/20 |
| 606-20-2 | 2,6-Dinitrotoluene | ND | | 50 | 46.3 | 93 | 50 | 46.0 | 92 | 1 | 40-140/20 |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | | 50 | 44.7 | 89 | 50 | 45.4 | 91 | 2 | 40-140/20 |
| 132-64-9 | Dibenzofuran | ND | | 50 | 40.1 | 80 | 50 | 41.2 | 82 | 3 | 40-140/20 |
| 84-74-2 | Di-n-butyl phthalate | 0.53 | JB | 50 | 45.4 | 90 | 50 | 44.6 | 88 | 2 | 40-140/20 |
| 117-84-0 | Di-n-octyl phthalate | ND | | 50 | 49.5 | 99 | 50 | 50.3 | 101 | 2 | 40-140/20 |
| 84-66-2 | Diethyl phthalate | ND | | 50 | 44.7 | 89 | 50 | 45.1 | 90 | 1 | 40-140/20 |
| 131-11-3 | Dimethyl phthalate | ND | | 50 | 45.5 | 91 | 50 | 46.3 | 93 | 2 | 40-140/20 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | | 50 | 50.2 | 100 | 50 | 49.7 | 99 | 1 | 40-140/20 |
| 118-74-1 | Hexachlorobenzene | ND | | 50 | 48.0 | 96 | 50 | 48.4 | 97 | 1 | 40-140/20 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC29684
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37586-MS | F72364.D | 1 | 04/18/14 | WK | 04/12/14 | OP37586 | MSF3219 |
| OP37586-MSD | F72365.D | 1 | 04/18/14 | WK | 04/12/14 | OP37586 | MSF3219 |
| MC29400-1 | F72366.D | 1 | 04/18/14 | WK | 04/12/14 | OP37586 | MSF3219 |

The QC reported here applies to the following samples: Method: SW846 8270D

MC29684-1, MC29684-2, MC29684-3, MC29684-4, MC29684-5, MC29684-6, MC29684-7

| CAS No. | Compound | MC29400-1 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 | | 50 | 21.5 | 43 | 50 | 22.7 | 45 | 5 | 40-140/20 |
| 67-72-1 | Hexachloroethane | ND | | 50 | 24.6 | 49 | 50 | 25.7 | 51 | 4 | 40-140/20 |
| 78-59-1 | Isophorone | ND | | 50 | 36.7 | 73 | 50 | 38.7 | 77 | 5 | 40-140/20 |
| 88-74-4 | 2-Nitroaniline | ND | | 50 | 44.8 | 90 | 50 | 46.6 | 93 | 4 | 40-140/20 |
| 99-09-2 | 3-Nitroaniline | ND | | 50 | 43.5 | 87 | 50 | 43.5 | 87 | 0 | 40-140/20 |
| 100-01-6 | 4-Nitroaniline | ND | | 50 | 43.6 | 87 | 50 | 43.0 | 86 | 1 | 40-140/20 |
| 98-95-3 | Nitrobenzene | ND | | 50 | 40.7 | 81 | 50 | 42.3 | 85 | 4 | 40-140/20 |
| 62-75-9 | n-Nitrosodimethylamine | ND | | 50 | 27.0 | 54 | 50 | 29.3 | 59 | 8 | 40-140/20 |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | | 50 | 40.3 | 81 | 50 | 42.4 | 85 | 5 | 40-140/20 |
| 86-30-6 | N-Nitrosodiphenylamine | ND | | 50 | 44.3 | 89 | 50 | 44.5 | 89 | 0 | 40-140/20 |
| 110-86-1 | Pyridine | ND | | 50 | 22.1 | 44 | 50 | 25.7 | 51 | 15 | 40-140/20 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29400-1 | Limits |
|---|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 46% | 49% | 49% | 15-110% |
| 4165-62-2 | Phenol-d5 | 28% | 31% | 30% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 84% | 87% | 79% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 71% | 75% | 75% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 73% | 76% | 74% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 88% | 91% | 87% | 30-130% |

(a) Outside control limits. Blank Spike meets program technical requirements.
(b) High RPD due to possible matrix interference and/or sample non-homogeneity.
(c) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: MC29684
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37587-MS | I88588.D | 1 | 04/16/14 | MR | 04/12/14 | OP37587 | MSI3299 |
| OP37587-MSD | I88589.D | 1 | 04/16/14 | MR | 04/12/14 | OP37587 | MSI3299 |
| MC29400-2 | I88590.D | 1 | 04/16/14 | MR | 04/12/14 | OP37587 | MSI3299 |

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC29684-1, MC29684-2, MC29684-3, MC29684-4, MC29684-5, MC29684-6, MC29684-7



| CAS No. | Compound | MC29400-2 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 | 36.7 | 73 | 50 | 36.9 | 74 | 1 | 40-140/20 |
| 208-96-8 | Acenaphthylene | ND | | 50 | 33.7 | 67 | 50 | 33.6 | 67 | 0 | 40-140/20 |
| 120-12-7 | Anthracene | ND | | 50 | 39.5 | 79 | 50 | 38.9 | 78 | 2 | 40-140/20 |
| 56-55-3 | Benzo(a)anthracene | ND | | 50 | 43.4 | 87 | 50 | 42.6 | 85 | 2 | 40-140/20 |
| 50-32-8 | Benzo(a)pyrene | ND | | 50 | 41.6 | 83 | 50 | 40.9 | 82 | 2 | 40-140/20 |
| 205-99-2 | Benzo(b)fluoranthene | ND | | 50 | 43.3 | 87 | 50 | 42.8 | 86 | 1 | 40-140/20 |
| 191-24-2 | Benzo(g,h,i)perylene | ND | | 50 | 47.2 | 94 | 50 | 46.5 | 93 | 1 | 40-140/20 |
| 207-08-9 | Benzo(k)fluoranthene | ND | | 50 | 44.4 | 89 | 50 | 44.0 | 88 | 1 | 40-140/20 |
| 218-01-9 | Chrysene | ND | | 50 | 41.4 | 83 | 50 | 41.0 | 82 | 1 | 40-140/20 |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | | 50 | 50.0 | 100 | 50 | 49.5 | 99 | 1 | 40-140/20 |
| 206-44-0 | Fluoranthene | ND | | 50 | 42.1 | 84 | 50 | 42.8 | 86 | 2 | 40-140/20 |
| 86-73-7 | Fluorene | ND | | 50 | 39.0 | 78 | 50 | 39.9 | 80 | 2 | 40-140/20 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | | 50 | 48.3 | 97 | 50 | 47.6 | 95 | 1 | 40-140/20 |
| 90-12-0 | 1-Methylnaphthalene | ND | | 50 | 31.9 | 64 | 50 | 34.4 | 69 | 8 | 40-140/20 |
| 91-57-6 | 2-Methylnaphthalene | ND | | 50 | 31.3 | 63 | 50 | 33.5 | 67 | 7 | 40-140/20 |
| 85-01-8 | Phenanthrene | 0.018 | J | 50 | 39.9 | 80 | 50 | 39.4 | 79 | 1 | 40-140/20 |
| 129-00-0 | Pyrene | ND | | 50 | 42.3 | 85 | 50 | 41.8 | 84 | 1 | 40-140/20 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29400-2 | Limits |
|---|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 35% | 39% | 39% | 15-110% |
| 4165-62-2 | Phenol-d5 | 23% | 25% | 24% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 80% | 80% | 78% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 65% | 71% | 73% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 63% | 64% | 65% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 88% | 88% | 89% | 30-130% |

* = Outside of Control Limits.

# Semivolatile Internal Standard Area Summary



**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSF3219-CC3181 | **Injection Date:** | 04/18/14 |
| **Lab File ID:** | F72361.D | **Injection Time:** | 08:13 |
| **Instrument ID:** | GCMSF | **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 | 660375 | 4.16 | 2309514 | 5.20 | 1326408 | 6.71 | 2237582 | 8.00 | 2364413 | 10.55 | 2260231 | 12.23 |
| Upper Limit [a] | 1320750 | 4.66 | 4619028 | 5.70 | 2652816 | 7.21 | 4475164 | 8.50 | 4728826 | 11.05 | 4520462 | 12.73 |
| Lower Limit [b] | 330188 | 3.66 | 1154757 | 4.70 | 663204 | 6.21 | 1118791 | 7.50 | 1182207 | 10.05 | 1130116 | 11.73 |
| **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** |
| OP37586-MB | 812968 | 4.15 | 2833987 | 5.20 | 1595395 | 6.71 | 2635849 | 8.00 | 2724140 | 10.55 | 2593509 | 12.23 |
| OP37586-BS | 778148 | 4.16 | 2722673 | 5.20 | 1554352 | 6.71 | 2541291 | 8.01 | 2628714 | 10.55 | 2537288 | 12.23 |
| OP37586-MS | 791087 | 4.16 | 2706426 | 5.20 | 1532781 | 6.71 | 2511936 | 8.00 | 2545001 | 10.55 | 2482145 | 12.23 |
| OP37586-MSD | 863129 | 4.16 | 2968500 | 5.20 | 1676992 | 6.71 | 2708641 | 8.00 | 2711655 | 10.55 | 2532752 | 12.23 |
| MC29400-1 | 778814 | 4.16 | 2791024 | 5.20 | 1613353 | 6.71 | 2710997 | 8.01 | 2841712 | 10.55 | 2716918 | 12.23 |
| MC29684-1 | 705360 | 4.15 | 2568023 | 5.20 | 1500507 | 6.71 | 2587139 | 8.00 | 2865694 | 10.55 | 2791979 | 12.23 |
| MC29684-2 | 746447 | 4.16 | 2665697 | 5.20 | 1566357 | 6.71 | 2646151 | 8.00 | 2779293 | 10.55 | 2712829 | 12.23 |
| MC29684-3 | 751998 | 4.16 | 2688138 | 5.20 | 1573294 | 6.71 | 2653997 | 8.00 | 2838307 | 10.55 | 2753545 | 12.23 |
| MC29684-4 | 775984 | 4.16 | 2689283 | 5.20 | 1555593 | 6.71 | 2512608 | 8.01 | 2647461 | 10.55 | 2559181 | 12.23 |
| MC29684-5 | 775833 | 4.16 | 2685165 | 5.20 | 1561251 | 6.71 | 2570639 | 8.00 | 2668416 | 10.55 | 2581801 | 12.23 |
| MC29684-6 | 677334 | 4.16 | 2362597 | 5.20 | 1396211 | 6.71 | 2303975 | 8.00 | 2438341 | 10.55 | 2359620 | 12.23 |
| MC29684-7 | 671269 | 4.16 | 2410217 | 5.20 | 1364256 | 6.71 | 2303668 | 8.00 | 2418659 | 10.55 | 2325045 | 12.23 |
| ZZZZZZ | 625293 | 4.16 | 2201304 | 5.20 | 1266201 | 6.71 | 2119277 | 8.00 | 2308904 | 10.55 | 2204815 | 12.23 |
| ZZZZZZ | 591191 | 4.15 | 2100814 | 5.20 | 1211759 | 6.71 | 2107524 | 8.01 | 2363015 | 10.55 | 2324390 | 12.23 |
| ZZZZZZ | 594730 | 4.16 | 2134983 | 5.20 | 1244153 | 6.71 | 2138032 | 8.00 | 2390735 | 10.55 | 2382888 | 12.23 |
| ZZZZZZ | 657737 | 4.16 | 2165467 | 5.20 | 1245422 | 6.72 | 2154707 | 8.02 | 2564281 | 10.55 | 2569140 | 12.23 |

**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:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSI3299-CC3238 | **Injection Date:** | 04/16/14 |
| **Lab File ID:** | I88579.D | **Injection Time:** | 07:55 |
| **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 | 370324 | 4.00 | 872147 | 5.05 | 514507 | 6.57 | 868405 | 7.95 | 640069 | 10.73 | 1569010 | 12.20 |
| Upper Limit [a] | 740648 | 4.50 | 1744294 | 5.55 | 1029014 | 7.07 | 1736810 | 8.45 | 1280138 | 11.23 | 3138020 | 12.70 |
| Lower Limit [b] | 185162 | 3.50 | 436074 | 4.55 | 257254 | 6.07 | 434203 | 7.45 | 320035 | 10.23 | 784505 | 11.70 |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OP37594-MB | 315183 | 4.00 | 755330 | 5.04 | 445330 | 6.57 | 765045 | 7.95 | 583321 | 10.72 | 1425017 | 12.20 |
| OP37594-BS | 339403 | 4.00 | 789058 | 5.05 | 456043 | 6.57 | 767490 | 7.95 | 571022 | 10.73 | 1382866 | 12.20 |
| ZZZZZZ | 323900 | 4.00 | 760896 | 5.04 | 452959 | 6.57 | 761304 | 7.95 | 546568 | 10.72 | 1338653 | 12.20 |
| OP37587-MB | 325242 | 4.00 | 750083 | 5.04 | 445625 | 6.57 | 726815 | 7.95 | 535708 | 10.72 | 1332242 | 12.20 |
| OP37587-BS | 315987 | 4.00 | 744779 | 5.05 | 443827 | 6.57 | 747078 | 7.95 | 575038 | 10.73 | 1376649 | 12.20 |
| OP37587-MS | 321593 | 4.00 | 764716 | 5.05 | 434523 | 6.57 | 720205 | 7.95 | 535725 | 10.73 | 1280924 | 12.20 |
| OP37587-MSD | 329250 | 4.00 | 758270 | 5.05 | 445891 | 6.57 | 728476 | 7.95 | 541609 | 10.73 | 1299335 | 12.20 |
| MC29400-2 | 309920 | 4.00 | 725153 | 5.04 | 441479 | 6.57 | 758750 | 7.94 | 569220 | 10.72 | 1380400 | 12.20 |
| MC29684-1 | 333182 | 4.00 | 788307 | 5.04 | 455447 | 6.57 | 772247 | 7.94 | 558611 | 10.72 | 1375887 | 12.20 |
| MC29684-2 | 324064 | 4.00 | 757862 | 5.04 | 447246 | 6.57 | 754882 | 7.95 | 550689 | 10.72 | 1355292 | 12.20 |
| MC29684-3 | 326472 | 4.00 | 781249 | 5.04 | 456951 | 6.57 | 751922 | 7.94 | 550624 | 10.72 | 1351710 | 12.20 |
| MC29684-4 | 314621 | 4.00 | 732048 | 5.04 | 428491 | 6.57 | 722669 | 7.95 | 533540 | 10.72 | 1312788 | 12.20 |
| MC29684-5 | 332163 | 4.00 | 765576 | 5.05 | 447068 | 6.57 | 734571 | 7.95 | 521254 | 10.72 | 1261821 | 12.20 |
| MC29684-6 | 336476 | 4.00 | 783265 | 5.05 | 457559 | 6.57 | 749424 | 7.95 | 545956 | 10.72 | 1346745 | 12.20 |
| MC29684-7 | 324598 | 4.00 | 752962 | 5.05 | 435051 | 6.57 | 721516 | 7.95 | 521677 | 10.72 | 1263969 | 12.20 |
| OP37612-MB | 320733 | 4.00 | 772649 | 5.04 | 453746 | 6.57 | 759956 | 7.94 | 563312 | 10.72 | 1370990 | 12.20 |
| OP37612-BS | 376369 | 4.00 | 877491 | 5.05 | 493867 | 6.57 | 785907 | 7.95 | 558219 | 10.73 | 1322152 | 12.20 |
| ZZZZZZ | 328215 | 3.99 | 754173 | 5.04 | 458665 | 6.57 | 773788 | 7.94 | 556646 | 10.72 | 1355766 | 12.20 |
| ZZZZZZ | 316930 | 3.99 | 767559 | 5.04 | 450047 | 6.57 | 746601 | 7.94 | 539304 | 10.72 | 1314866 | 12.20 |
| ZZZZZZ | 351293 | 4.00 | 831042 | 5.04 | 485482 | 6.57 | 808809 | 7.94 | 592723 | 10.72 | 1447029 | 12.20 |
| ZZZZZZ | 332035 | 4.00 | 760092 | 5.04 | 460804 | 6.57 | 765129 | 7.94 | 558150 | 10.72 | 1362382 | 12.20 |
| ZZZZZZ | 317910 | 4.00 | 754952 | 5.04 | 441839 | 6.57 | 739033 | 7.94 | 532047 | 10.72 | 1314733 | 12.19 |
| ZZZZZZ | 328173 | 3.99 | 771686 | 5.04 | 448642 | 6.57 | 743459 | 7.94 | 545353 | 10.72 | 1308336 | 12.19 |
| ZZZZZZ | 331494 | 4.00 | 784015 | 5.04 | 450989 | 6.57 | 740698 | 7.94 | 541484 | 10.72 | 1316760 | 12.19 |
| ZZZZZZ | 316438 | 3.97 | 737678 | 5.03 | 426166 | 6.57 | 702248 | 7.94 | 518224 | 10.72 | 1253025 | 12.19 |
| ZZZZZZ | 316722 | 3.99 | 758453 | 5.04 | 439698 | 6.57 | 730565 | 7.94 | 544072 | 10.72 | 1300827 | 12.19 |

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:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSI3299-CC3238 | **Injection Date:** | 04/16/14 |
| **Lab File ID:** | I88579.D | **Injection Time:** | 07:55 |
| **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.

# Semivolatile Surrogate Recovery Summary



**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 |
|---|---|---|---|---|---|---|---|
| MC29684-1 | F72367.D | 45 | 30 | 75 | 70 | 70 | 83 |
| MC29684-2 | F72368.D | 50 | 32 | 72 | 69 | 66 | 85 |
| MC29684-3 | F72369.D | 39 | 26 | 69 | 57 | 59 | 86 |
| MC29684-4 | F72370.D | 50 | 31 | 86 | 76 | 73 | 87 |
| MC29684-5 | F72371.D | 52 | 33 | 86 | 78 | 76 | 90 |
| MC29684-6 | F72372.D | 84 | 34 | 91 | 81 | 82 | 103 |
| MC29684-7 | F72373.D | 88 | 35 | 90 | 81 | 87 | 100 |
| OP37586-BS | F72363.D | 52 | 33 | 86 | 76 | 78 | 88 |
| OP37586-MB | F72362.D | 46 | 29 | 74 | 70 | 71 | 88 |
| OP37586-MS | F72364.D | 46 | 28 | 84 | 71 | 73 | 88 |
| OP37586-MSD | F72365.D | 49 | 31 | 87 | 75 | 76 | 91 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = 2-Fluorophenol | 15-110% |
| S2 = Phenol-d5 | 15-110% |
| S3 = 2,4,6-Tribromophenol | 15-110% |
| S4 = Nitrobenzene-d5 | 30-130% |
| S5 = 2-Fluorobiphenyl | 30-130% |
| S6 = Terphenyl-d14 | 30-130% |

# Semivolatile Surrogate Recovery Summary



**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 |
|---|---|---|---|---|
| MC29684-1 | I88591.D | 67 | 61 | 89 |
| MC29684-2 | I88592.D | 66 | 58 | 84 |
| MC29684-3 | I88593.D | 54 | 51 | 87 |
| MC29684-4 | I88594.D | 71 | 64 | 87 |
| MC29684-5 | I88595.D | 74 | 65 | 91 |
| MC29684-6 | I88596.D | 66 | 60 | 88 |
| MC29684-7 | I88597.D | 70 | 65 | 91 |
| OP37587-BS | I88587.D | 73 | 68 | 86 |
| OP37587-MB | I88586.D | 67 | 62 | 90 |
| OP37587-MS | I88588.D | 65 | 63 | 88 |
| OP37587-MSD | I88589.D | 71 | 64 | 88 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = Nitrobenzene-d5 | 30-130% |
| S2 = 2-Fluorobiphenyl | 30-130% |
| S3 = Terphenyl-d14 | 30-130% |

## 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:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37606-MB | YZ89225.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |

**The QC reported here applies to the following samples:** **Method:** SW846 8011

MC29684-1, MC29684-2, MC29684-3, MC29684-4, MC29684-5, MC29684-6, MC29684-7, MC29684-9

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.015 | 0.0054 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.015 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 74% | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 59% | 36-173% |

# Blank Spike Summary



**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37606-BS | YZ89226.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |

**The QC reported here applies to the following samples:** **Method:** SW846 8011

MC29684-1, MC29684-2, MC29684-3, MC29684-4, MC29684-5, MC29684-6, MC29684-7, MC29684-9

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 0.071 | 0.049 | 69 | 60-140 |
| 106-93-4 | 1,2-Dibromoethane | 0.071 | 0.046 | 65 | 60-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 52% | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 50% | 36-173% |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37606-MS | YZ89227.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |
| OP37606-MSD | YZ89228.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |
| MC29713-2 | YZ89229.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |

**The QC reported here applies to the following samples:** **Method:** SW846 8011

MC29684-1, MC29684-2, MC29684-3, MC29684-4, MC29684-5, MC29684-6, MC29684-7, MC29684-9

| CAS No. | Compound | MC29713-2 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 | | 0.0685 | 0.061 | 89 | 0.0675 | 0.063 | 93 | 3 | 64-141/29 |
| 106-93-4 | 1,2-Dibromoethane | ND | | 0.0685 | 0.045 | 66 | 0.0675 | 0.054 | 80 | 18 | 63-163/27 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29713-2 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 67% | 88% | 62% | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 63% | 73% | 54% | 36-173% |

* = Outside of Control Limits.

# Volatile Surrogate Recovery Summary



**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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] |
|---|---|---|---|
| MC29684-1 | YZ89239.D | 77 | 60 |
| MC29684-2 | YZ89240.D | 91 | 77 |
| MC29684-3 | YZ89241.D | 90 | 69 |
| MC29684-4 | YZ89242.D | 107 | 90 |
| MC29684-5 | YZ89243.D | 106 | 74 |
| MC29684-6 | YZ89244.D | 127 | 56 |
| MC29684-7 | YZ89245.D | 152 | 68 |
| MC29684-9 | YZ89247.D | 89 | 70 |
| OP37606-BS | YZ89226.D | 52 | 50 |
| OP37606-MB | YZ89225.D | 74 | 59 |
| OP37606-MS | YZ89227.D | 67 | 63 |
| OP37606-MSD | YZ89228.D | 88 | 73 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = Bromofluorobenzene (S) | 36-173% |

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

8.4.1

8

# GC Surrogate Retention Time Summary



**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | GYZ7541-ICC7541 | **Injection Date:** | 04/15/14 |
| **Lab File ID:** | YZ89221.D | **Injection Time:** | 10:38 |
| **Instrument ID:** | GCYZ | **Method:** | SW846 8011 |

| | S1 [a] RT | S1 [b] RT |
|---|---|---|
| Check Std | 4.08 | 4.76 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 [a] RT | S1 [b] RT |
|---|---|---|---|---|---|
| OP37606-MB | YZ89225.D | 04/15/14 | 13:15 | 4.08 | 4.76 |
| OP37606-BS | YZ89226.D | 04/15/14 | 13:42 | 4.08 | 4.76 |
| OP37606-MS | YZ89227.D | 04/15/14 | 14:10 | 4.08 | 4.76 |
| OP37606-MSD | YZ89228.D | 04/15/14 | 14:38 | 4.08 | 4.76 |
| MC29713-2 | YZ89229.D | 04/15/14 | 15:05 | 4.08 | 4.76 |
| ZZZZZZ | YZ89230.D | 04/15/14 | 15:33 | 4.08 | 4.76 |
| ZZZZZZ | YZ89231.D | 04/15/14 | 16:00 | 4.08 | 4.76 |
| ZZZZZZ | YZ89232.D | 04/15/14 | 16:28 | 4.08 | 4.76 |
| ZZZZZZ | YZ89233.D | 04/15/14 | 16:56 | 4.08 | 4.76 |
| ZZZZZZ | YZ89234.D | 04/15/14 | 17:25 | 4.08 | 4.76 |

**Surrogate Compounds**

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

# GC Surrogate Retention Time Summary



**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | GYZ7541-CC7541 | **Injection Date:** | 04/15/14 |
| **Lab File ID:** | YZ89235.D | **Injection Time:** | 17:53 |
| **Instrument ID:** | GCYZ | **Method:** | SW846 8011 |

| | S1 [a] RT | S1 [b] RT |
|---|---|---|
| Check Std | 4.08 | 4.76 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 [a] RT | S1 [b] RT |
|---|---|---|---|---|---|
| ZZZZZZ | YZ89236.D | 04/15/14 | 18:21 | 4.08 | 4.76 |
| ZZZZZZ | YZ89237.D | 04/15/14 | 18:49 | 4.08 | 4.76 |
| ZZZZZZ | YZ89238.D | 04/15/14 | 19:16 | 4.08 | 4.76 |
| MC29684-1 | YZ89239.D | 04/15/14 | 19:44 | 4.08 | 4.76 |
| MC29684-2 | YZ89240.D | 04/15/14 | 20:11 | 4.08 | 4.76 |
| MC29684-3 | YZ89241.D | 04/15/14 | 20:37 | 4.08 | 4.76 |
| MC29684-4 | YZ89242.D | 04/15/14 | 21:05 | 4.08 | 4.76 |
| MC29684-5 | YZ89243.D | 04/15/14 | 21:33 | 4.08 | 4.76 |
| MC29684-6 | YZ89244.D | 04/15/14 | 21:59 | 4.07 | 4.76 |
| MC29684-7 | YZ89245.D | 04/15/14 | 22:26 | 4.07 | 4.76 |

**Surrogate Compounds**

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

# GC Surrogate Retention Time Summary



**Job Number:** MC29684
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | GYZ7541-CC7541 | **Injection Date:** | 04/15/14 |
| **Lab File ID:** | YZ89246.D | **Injection Time:** | 22:53 |
| **Instrument ID:** | GCYZ | **Method:** | SW846 8011 |

| | S1 [a] RT | S1 [b] RT |
|---|---|---|
| Check Std | 4.08 | 4.76 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 [a] RT | S1 [b] RT |
|---|---|---|---|---|---|
| MC29684-9 | YZ89247.D | 04/15/14 | 23:19 | 4.08 | 4.76 |
| GYZ7541-ECC754 | YZ89248.D | 04/15/14 | 23:46 | 4.08 | 4.76 |

**Surrogate Compounds**

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.5.3

8

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*Automated Report*

# Technical Report for

## Shell Oil

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana,

SGS Accutest Job Number: MC29713

Sampling Date: 04/11/14



Report to:

AECOM, INC.

Melissa.mansker@aecom.com

ATTN: Melissa Mansker

Total number of pages in report: 73

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.

H. (Brad) Madadian
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO (MA00136) MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.



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SGS ACCUTEST

November 2, 2016

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

RE: SGS Accutest Job # MC29713

Dear Elizabeth Kunkel

As you are aware, SGS Accutest Inc. - Marlboroug has been conducting an extensive review of data associated with some historical Gas Chromatography-Mass Spectroscopy volatiles analyses. As a result of this review it was determined that some revisions of the original test report for this job were needed. These corrections have been incorporated into the revised report.

Please be assured that corrective actions have been put in place to address this matter and prevent a recurrence.

We apologize for any inconvenience that this issue may have caused. Please don't hesitate to contact us if we can be of further assistance.

Sincerely



**H. (Brad) Madadian**

Regional Laboratory Director
SGS Accutest Inc. - Marlborough

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# Sample Summary

Shell Oil

Job No: MC29713

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample Number | Collected Date | Time | By | Received | Matrix Code | Type | Client Sample ID |
|---|---|---|---|---|---|---|---|
| MC29713-1 | 04/11/14 | 10:25 | DMMM | 04/12/14 | AQ | Ground Water | MW13-ROX-041114 |
| MC29713-2 | 04/11/14 | 12:40 | DMMM | 04/12/14 | AQ | Ground Water | MW14-ROX-041114 |
| MC29713-2D | 04/11/14 | 12:40 | DMMM | 04/12/14 | AQ | Water Dup/MSD | MW14-ROX-041114 |
| MC29713-2S | 04/11/14 | 12:40 | DMMM | 04/12/14 | AQ | Water Matrix Spike | MW14-ROX-041114 |
| MC29713-3 | 04/11/14 | 14:20 | DMMM | 04/12/14 | AQ | Ground Water | P66-ROX-041114 |
| MC29713-4 | 04/11/14 | 00:00 | DMMM | 04/12/14 | AQ | Trip Blank Water | TB-ROX-041114-HCL |
| MC29713-5 | 04/11/14 | 00:00 | DMMM | 04/12/14 | AQ | Trip Blank Water | TB-ROX-041114-ST |

# SAMPLE DELIVERY GROUP CASE NARRATIVE



**Client:** She O **Job No** MC297 3

**Site:** URSMOSTL:Roxana 2Q 4 GW/ 2 562973 03002 900 South Centra **Report Date** /2/20 6 3:23:32 PM

3 Samp e(s), 2 Tr p B ank(s) were co ected on 04/ /20 4 and were rece ved at SGS Accutest New Eng and on 04/ 2/20 4 proper y preserved, at 5 Deg C and ntact These Samp es rece ved a job number of MC297 3 A st ng of the Laboratory Samp e ID, C ent Samp e ID and dates of co ect on are presented n the Resu ts Summary Sect on of th s report -Ch orohexane, Benzeneth o , D benz(a,h)acr d ne, Indene, and Qu no ne were searched n the bra y search and reported on y f detect ons were found

Except as noted be ow, a method spec f ed ca brat ons and qua ty contro performance cr ter a were met for th s job For more nformat on, p ease refer to QC summary pages

## Volatiles by GCMS By Method SW846 8260C

**Matrix:** AQ **Batch ID:** MSV 26

- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC297 3-2MS, MC297 3-2MSD were used as the QC samp es nd cated
- A method b anks for th s batch meet method spec f c cr ter a
- B ank Sp ke Recovery(s) for Acro e n are outs de contro m ts
- Matr x Sp ke Recovery(s) for ,4-D oxane, 2-Ch oroethy v ny ether, Acro e n, Ch oroethane are outs de contro m ts Outs de contro m ts due to poss b e matr x nterference
- Matr x Sp ke Dup cate Recove y(s) for 2-Ch oroethy v ny ether, Acro e n, Benzene, D ch orod f uoromethane are outs de contro m ts Outs de contro m ts due to poss b e matr x nterference
- RPD(s) for MSD for Ch oromethane, Tr ch orof uoromethane are outs de contro m ts for samp e MC297 3-2MSD H gh RPD due to poss b e matr x nterference and/or samp e non-homogene ty
- ,4-D oxane, 2-Ch oroethy v ny ether: Cont nu ng Ca brat on Ver f cat on outs de of acceptance cr ter a Samp e resu t may be b ased ow

## Extractables by GCMS By Method SW846 8270D

**Matrix:** AQ **Batch ID:** OP3759

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC297 3-2MS, MC297 3-2MSD were used as the QC samp es nd cated
- Samp e(s) MC297 3- , MC297 3-2, MC297 3-3 have compound(s) reported w th a “B” qua f er, nd cat ng ana yte s found n the assoc ated method b ank
- Matr x Sp ke Recovery(s) for 3,3'-D ch orobenz d ne are outs de contro m ts Outs de contro m ts due to poss b e matr x nterference Refer to B ank Sp ke
- RPD(s) for MSD for 3,3'-D ch orobenz d ne are outs de contro m ts for samp e OP3759 -MSD H gh RPD due to poss b e matr x nterference and/or samp e non-homogene ty

## Extractables by GCMS By Method SW846 8270D BY SIM

**Matrix:** AQ **Batch ID:** OP37592

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- A method b anks for th s batch meet method spec f c cr ter a
- Samp e(s) MC297 3-2MS, MC297 3-2MSD were used as the QC samp es nd cated

## Volatiles by GC By Method SW846 8011

**Matrix:** AQ **Batch ID:** OP37606

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC297 3-2MS, MC297 3-2MSD were used as the QC samp es nd cated
- A method b anks for th s batch meet method spec f c cr ter a

SGS Accutest New Eng and cert f es that a ana ys s were performed w th n method spec f cat on It s further recommended that th s report to be used n ts ent rety The Laborato y D rector for SGS Accutest New Eng and or ass gnee as ver f ed by the s gnature on the cover page has author zed the re ease of th s repo t(MC297 3)

# Summary of Hits



**Job Number:** MC29713
**Account:** Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Collected:** 04/11/14



| Lab Sample ID / Analyte | Client Sample ID | Result/ Qual | RL | MDL | Units | Method |
|---|---|---|---|---|---|---|
| MC29713-1 | MW13-ROX-041114 | | | | | |
| Benzene | | 0.58 | 0.50 | 0.32 | ug/l | SW846 8260C |
| Methyl Tert Butyl Ether | | 6.2 | 1.0 | 0.51 | ug/l | SW846 8260C |
| Di-n-butyl phthalate | | 0.79 JB | 6.0 | 0.21 | ug/l | SW846 8270D |
| bis(2-Ethylhexyl)phthalate | | 0.69 JB | 2.4 | 0.40 | ug/l | SW846 8270D |
| Acenaphthene | | 0.13 | 0.12 | 0.083 | ug/l | SW846 8270D BY SIM |
| Acenaphthylene | | 0.066 J | 0.12 | 0.060 | ug/l | SW846 8270D BY SIM |
| Phenanthrene | | 0.033 J | 0.060 | 0.015 | ug/l | SW846 8270D BY SIM |
| MC29713-2 | MW14-ROX-041114 | | | | | |
| Benzene | | 1.7 | 0.50 | 0.32 | ug/l | SW846 8260C |
| tert-Butylbenzene | | 0.46 J | 5.0 | 0.39 | ug/l | SW846 8260C |
| Di-n-butyl phthalate | | 0.82 JB | 6.0 | 0.21 | ug/l | SW846 8270D |
| bis(2-Ethylhexyl)phthalate | | 0.69 JB | 2.4 | 0.40 | ug/l | SW846 8270D |
| Acenaphthene | | 0.37 | 0.11 | 0.079 | ug/l | SW846 8270D BY SIM |
| Acenaphthylene | | 0.089 J | 0.11 | 0.057 | ug/l | SW846 8270D BY SIM |
| Fluorene | | 0.30 | 0.11 | 0.11 | ug/l | SW846 8270D BY SIM |
| 1-Methylnaphthalene | | 1.8 | 0.23 | 0.057 | ug/l | SW846 8270D BY SIM |
| MC29713-3 | P66-ROX-041114 | | | | | |
| Benzene | | 5.2 | 0.50 | 0.32 | ug/l | SW846 8260C |
| n-Butylbenzene | | 12.9 | 5.0 | 1.1 | ug/l | SW846 8260C |
| sec-Butylbenzene | | 16.8 | 5.0 | 0.42 | ug/l | SW846 8260C |
| tert-Butylbenzene | | 4.1 J | 5.0 | 0.39 | ug/l | SW846 8260C |
| Chlorobenzene | | 0.52 J | 1.0 | 0.43 | ug/l | SW846 8260C |
| Ethylbenzene | | 1.4 | 1.0 | 0.38 | ug/l | SW846 8260C |
| Isopropylbenzene | | 115 | 5.0 | 0.35 | ug/l | SW846 8260C |
| Naphthalene | | 1.4 J | 5.0 | 0.69 | ug/l | SW846 8260C |
| n-Propylbenzene | | 136 | 5.0 | 0.49 | ug/l | SW846 8260C |
| Toluene | | 1.7 | 1.0 | 0.33 | ug/l | SW846 8260C |
| o-Xylene | | 0.72 J | 1.0 | 0.36 | ug/l | SW846 8260C |
| Xylene (total) | | 1.3 | 1.0 | 0.36 | ug/l | SW846 8260C |
| Di-n-butyl phthalate | | 0.88 JB | 5.8 | 0.20 | ug/l | SW846 8270D |
| bis(2-Ethylhexyl)phthalate | | 0.68 JB | 2.3 | 0.39 | ug/l | SW846 8270D |
| Acenaphthene | | 0.58 | 0.12 | 0.080 | ug/l | SW846 8270D BY SIM |
| Acenaphthylene | | 0.17 | 0.12 | 0.058 | ug/l | SW846 8270D BY SIM |
| Fluorene | | 1.3 | 0.12 | 0.12 | ug/l | SW846 8270D BY SIM |
| 1-Methylnaphthalene | | 64.9 | 0.23 | 0.058 | ug/l | SW846 8270D BY SIM |
| 2-Methylnaphthalene | | 23.0 | 0.23 | 0.086 | ug/l | SW846 8270D BY SIM |
| Phenanthrene | | 0.49 | 0.058 | 0.015 | ug/l | SW846 8270D BY SIM |
| Pyrene | | 0.049 J | 0.12 | 0.045 | ug/l | SW846 8270D BY SIM |

# Summary of Hits

**Job Number:** MC29713
**Account:** Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Collected:** 04/11/14



| Lab Sample ID / Analyte | Client Sample ID | Result/ Qual | RL | MDL | Units | Method |
|---|---|---|---|---|---|---|
| MC29713-4 | TB-ROX-041114-HCL | | | | | |
| No hits reported in this sample. | | | | | | |
| MC29713-5 | TB-ROX-041114-ST | | | | | |
| No hits reported in this sample. | | | | | | |

## Sample Results

Report of Analysis

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW13-ROX-041114 | | |
| **Lab Sample ID:** | MC29713-1 | **Date Sampled:** | 04/11/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/12/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V30136.D | 1 | 04/23/14 | AMY | n/a | n/a | MSV1126 |
| 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 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | 0.58 | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [a] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-041114 | | |
| **Lab Sample ID:** | MC29713-1 | **Date Sampled:** | 04/11/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/12/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane [a] | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | 6.2 | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-041114 | | |
| **Lab Sample ID:** | MC29713-1 | **Date Sampled:** | 04/11/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/12/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 102% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 76% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 96% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041114 | | |
| **Lab Sample ID:** | MC29713-1 | **Date Sampled:** | 04/11/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/12/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | F72258.D | 1 | 04/16/14 | WK | 04/14/14 | OP37591 | MSF3215 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 830 ml | 1.0 ml |
| Run #2 | | |

**ABN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 12 | 3.0 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 6.0 | 0.37 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 12 | 0.99 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 12 | 0.48 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 12 | 0.68 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 3.0 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 12 | 2.3 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 12 | 0.27 | ug/l | |
| | 3&4-Methylphenol | ND | 12 | 0.56 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 12 | 3.5 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 0.64 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 12 | 1.3 | ug/l | |
| 108-95-2 | Phenol | ND | 6.0 | 0.36 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 12 | 0.45 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 12 | 0.21 | ug/l | |
| 62-53-3 | Aniline | ND | 12 | 0.77 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 6.0 | 0.57 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 6.0 | 0.64 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 12 | 2.7 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 6.0 | 0.38 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 12 | 0.67 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 6.0 | 0.35 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 6.0 | 0.42 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 6.0 | 0.40 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 6.0 | 0.30 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 6.0 | 0.29 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 12 | 0.55 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 12 | 0.36 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 6.0 | 0.32 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.4 | 0.31 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.79 | 6.0 | 0.21 | ug/l | JB |
| 117-84-0 | Di-n-octyl phthalate | ND | 6.0 | 0.34 | 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-041114 | | |
| **Lab Sample ID:** | MC29713-1 | **Date Sampled:** | 04/11/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/12/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**ABN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 84-66-2 | Diethyl phthalate | ND | 6.0 | 0.24 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 6.0 | 0.41 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 0.69 | 2.4 | 0.40 | ug/l | JB |
| 118-74-1 | Hexachlorobenzene | ND | 6.0 | 0.35 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 12 | 1.5 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 6.0 | 0.36 | ug/l | |
| 78-59-1 | Isophorone | ND | 6.0 | 0.54 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 12 | 0.48 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 12 | 1.7 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 12 | 2.6 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 6.0 | 0.47 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 6.0 | 1.2 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 6.0 | 0.49 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 6.0 | 0.23 | ug/l | |
| 110-86-1 | Pyridine | ND | 12 | 0.62 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 48% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 32% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 83% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 74% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 76% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 87% | | 30-130% |

| 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-041114 | | |
| **Lab Sample ID:** | MC29713-1 | **Date Sampled:** | 04/11/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/12/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88570.D | 1 | 04/15/14 | MR | 04/14/14 | OP37592 | MSI3298 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 830 ml | 1.0 ml |
| Run #2 | | |

**BN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 0.13 | 0.12 | 0.083 | ug/l | |
| 208-96-8 | Acenaphthylene | 0.066 | 0.12 | 0.060 | ug/l | J |
| 120-12-7 | Anthracene | ND | 0.12 | 0.11 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.060 | 0.023 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.12 | 0.035 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.060 | 0.038 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.12 | 0.032 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.12 | 0.047 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.12 | 0.029 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.12 | 0.038 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.12 | 0.049 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.12 | 0.12 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.12 | 0.037 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.24 | 0.060 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.24 | 0.089 | ug/l | |
| 85-01-8 | Phenanthrene | 0.033 | 0.060 | 0.015 | ug/l | J |
| 129-00-0 | Pyrene | ND | 0.12 | 0.046 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 72% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 66% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 92% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates 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-041114 | | |
| **Lab Sample ID:** | MC29713-1 | **Date Sampled:** | 04/11/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/12/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89230.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 37.1 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0051 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 94% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 85% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041114 | | |
| **Lab Sample ID:** | MC29713-2 | **Date Sampled:** | 04/11/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/12/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V30130.D | 1 | 04/23/14 | AMY | n/a | n/a | MSV1126 |
| 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 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | 1.7 | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | 0.46 | 5.0 | 0.39 | ug/l | J |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [a] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-041114 | | |
| **Lab Sample ID:** | MC29713-2 | **Date Sampled:** | 04/11/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/12/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane [a] | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-041114 | | |
| **Lab Sample ID:** | MC29713-2 | **Date Sampled:** | 04/11/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/12/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 80% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 92% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 92% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041114 | | |
| **Lab Sample ID:** | MC29713-2 | **Date Sampled:** | 04/11/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/12/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | F72262.D | 1 | 04/16/14 | WK | 04/14/14 | OP37591 | MSF3215 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 840 ml | 1.0 ml |
| Run #2 | | |

**ABN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 12 | 3.0 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 6.0 | 0.37 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 12 | 0.98 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 12 | 0.47 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 12 | 0.67 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 3.0 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 12 | 2.3 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 12 | 0.27 | ug/l | |
| | 3&4-Methylphenol | ND | 12 | 0.56 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 12 | 3.4 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 0.64 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 12 | 1.3 | ug/l | |
| 108-95-2 | Phenol | ND | 6.0 | 0.36 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 12 | 0.44 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 12 | 0.21 | ug/l | |
| 62-53-3 | Aniline | ND | 12 | 0.76 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 6.0 | 0.56 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 6.0 | 0.63 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 12 | 2.7 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 6.0 | 0.37 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 12 | 0.66 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 6.0 | 0.34 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 6.0 | 0.42 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 6.0 | 0.40 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 6.0 | 0.30 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 6.0 | 0.29 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 12 | 0.54 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 12 | 0.36 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 6.0 | 0.32 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.4 | 0.31 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.82 | 6.0 | 0.21 | ug/l | JB |
| 117-84-0 | Di-n-octyl phthalate | ND | 6.0 | 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:** | MW14-ROX-041114 | | |
| **Lab Sample ID:** | MC29713-2 | **Date Sampled:** | 04/11/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/12/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**ABN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 84-66-2 | Diethyl phthalate | ND | 6.0 | 0.24 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 6.0 | 0.40 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 0.69 | 2.4 | 0.40 | ug/l | JB |
| 118-74-1 | Hexachlorobenzene | ND | 6.0 | 0.34 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 12 | 1.5 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 6.0 | 0.36 | ug/l | |
| 78-59-1 | Isophorone | ND | 6.0 | 0.53 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 12 | 0.47 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 12 | 1.6 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 12 | 2.6 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 6.0 | 0.47 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 6.0 | 1.2 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 6.0 | 0.48 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 6.0 | 0.23 | ug/l | |
| 110-86-1 | Pyridine | ND | 12 | 0.61 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 51% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 34% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 86% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 78% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 78% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 93% | | 30-130% |

| 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-041114 | | |
| **Lab Sample ID:** | MC29713-2 | **Date Sampled:** | 04/11/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/12/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88569.D | 1 | 04/15/14 | MR | 04/14/14 | OP37592 | MSI3298 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 870 ml | 1.0 ml |
| Run #2 | | |

**BN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 0.37 | 0.11 | 0.079 | ug/l | |
| 208-96-8 | Acenaphthylene | 0.089 | 0.11 | 0.057 | ug/l | J |
| 120-12-7 | Anthracene | ND | 0.11 | 0.11 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.057 | 0.022 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.11 | 0.033 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.057 | 0.036 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.11 | 0.031 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.11 | 0.044 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.11 | 0.027 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.11 | 0.037 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.11 | 0.047 | ug/l | |
| 86-73-7 | Fluorene | 0.30 | 0.11 | 0.11 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.11 | 0.035 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | 1.8 | 0.23 | 0.057 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.23 | 0.085 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 0.057 | 0.014 | ug/l | |
| 129-00-0 | Pyrene | ND | 0.11 | 0.044 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 73% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 69% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 99% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041114 | | |
| **Lab Sample ID:** | MC29713-2 | **Date Sampled:** | 04/11/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/12/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89229.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.8 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0052 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 62% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 54% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041114 | | |
| **Lab Sample ID:** | MC29713-3 | **Date Sampled:** | 04/11/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/12/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V30137.D | 1 | 04/23/14 | AMY | n/a | n/a | MSV1126 |
| 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 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | 5.2 | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | 12.9 | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | 16.8 | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | 4.1 | 5.0 | 0.39 | ug/l | J |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | 0.52 | 1.0 | 0.43 | ug/l | J |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [a] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-041114 | | |
| **Lab Sample ID:** | MC29713-3 | **Date Sampled:** | 04/11/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/12/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane [a] | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | 1.4 | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | 115 | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | 1.4 | 5.0 | 0.69 | ug/l | J |
| 103-65-1 | n-Propylbenzene | 136 | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | 1.7 | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | 0.72 | 1.0 | 0.36 | ug/l | J |
| 1330-20-7 | Xylene (total) | 1.3 | 1.0 | 0.36 | 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-041114 | | |
| **Lab Sample ID:** | MC29713-3 | **Date Sampled:** | 04/11/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/12/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 81% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 106% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 93% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041114 | | |
| **Lab Sample ID:** | MC29713-3 | **Date Sampled:** | 04/11/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/12/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | F72286.D | 1 | 04/16/14 | WK | 04/14/14 | OP37591 | MSF3216 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 860 ml | 1.0 ml |
| Run #2 | | |

**ABN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 12 | 2.9 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 5.8 | 0.36 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 12 | 0.96 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 12 | 0.46 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 12 | 0.65 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 23 | 2.9 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 12 | 2.2 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 12 | 0.26 | ug/l | |
| | 3&4-Methylphenol | ND | 12 | 0.54 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 12 | 3.4 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 23 | 0.62 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 12 | 1.3 | ug/l | |
| 108-95-2 | Phenol | ND | 5.8 | 0.35 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 12 | 0.43 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 12 | 0.20 | ug/l | |
| 62-53-3 | Aniline | ND | 12 | 0.74 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.8 | 0.55 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.8 | 0.62 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 12 | 2.6 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.8 | 0.36 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 12 | 0.65 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.8 | 0.33 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.8 | 0.41 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.8 | 0.39 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.8 | 0.29 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.8 | 0.28 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 12 | 0.53 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 12 | 0.35 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.8 | 0.31 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.3 | 0.30 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.88 | 5.8 | 0.20 | ug/l | JB |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.8 | 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:** | P66-ROX-041114 | | |
| **Lab Sample ID:** | MC29713-3 | **Date Sampled:** | 04/11/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/12/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**ABN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 84-66-2 | Diethyl phthalate | ND | 5.8 | 0.23 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.8 | 0.40 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 0.68 | 2.3 | 0.39 | ug/l | JB |
| 118-74-1 | Hexachlorobenzene | ND | 5.8 | 0.34 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 12 | 1.5 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.8 | 0.35 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.8 | 0.52 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 12 | 0.46 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 12 | 1.6 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 12 | 2.5 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.8 | 0.45 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.8 | 1.2 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.8 | 0.47 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.8 | 0.22 | ug/l | |
| 110-86-1 | Pyridine | ND | 12 | 0.60 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 49% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 32% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 86% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 79% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 73% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 88% | | 30-130% |

| 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-041114 | | |
| **Lab Sample ID:** | MC29713-3 | **Date Sampled:** | 04/11/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/12/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88571.D | 1 | 04/15/14 | MR | 04/14/14 | OP37592 | MSI3298 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 860 ml | 1.0 ml |
| Run #2 | | |

**BN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 0.58 | 0.12 | 0.080 | ug/l | |
| 208-96-8 | Acenaphthylene | 0.17 | 0.12 | 0.058 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.12 | 0.11 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.058 | 0.023 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.12 | 0.033 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.058 | 0.037 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.12 | 0.031 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.12 | 0.045 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.12 | 0.028 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.12 | 0.037 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.12 | 0.047 | ug/l | |
| 86-73-7 | Fluorene | 1.3 | 0.12 | 0.12 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.12 | 0.036 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | 64.9 | 0.23 | 0.058 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 23.0 | 0.23 | 0.086 | ug/l | |
| 85-01-8 | Phenanthrene | 0.49 | 0.058 | 0.015 | ug/l | |
| 129-00-0 | Pyrene | 0.049 | 0.12 | 0.045 | ug/l | J |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 71% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 68% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 92% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041114 | | |
| **Lab Sample ID:** | MC29713-3 | **Date Sampled:** | 04/11/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/12/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89231.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.4 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0052 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 127% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 77% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041114-HCL | | |
| **Lab Sample ID:** | MC29713-4 | **Date Sampled:** | 04/11/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/12/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V30129.D | 1 | 04/23/14 | AMY | n/a | n/a | MSV1126 |
| 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 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [a] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-041114-HCL | | |
| **Lab Sample ID:** | MC29713-4 | **Date Sampled:** | 04/11/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/12/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane [a] | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-041114-HCL | | |
| **Lab Sample ID:** | MC29713-4 | **Date Sampled:** | 04/11/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/12/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 94% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 93% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 90% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041114-ST | | |
| **Lab Sample ID:** | MC29713-5 | **Date Sampled:** | 04/11/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/12/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89232.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.9 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0051 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 81% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 64% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

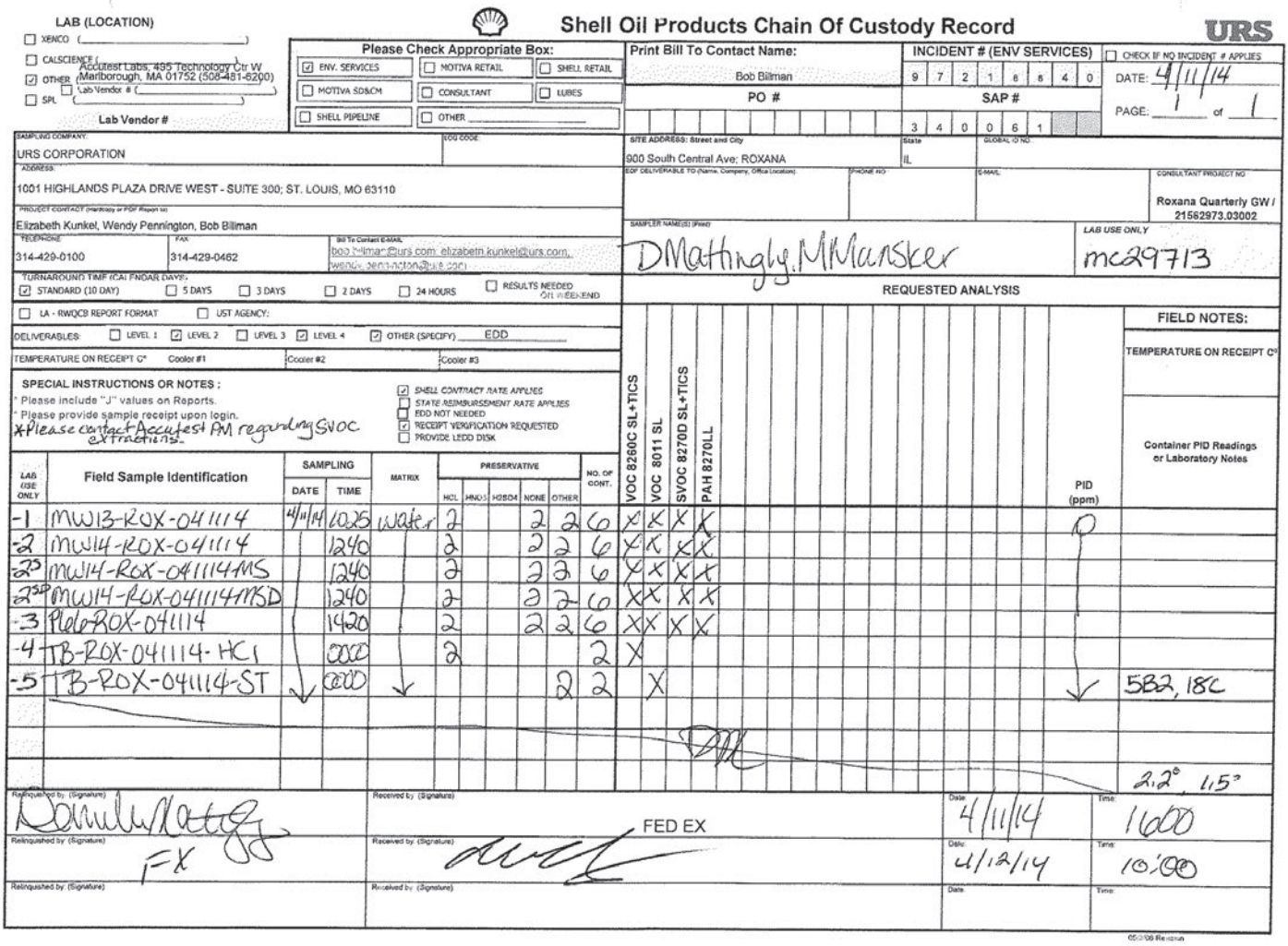
## Misc. Forms



# 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

URS

LAB (LOCATION)
☐ XENCO (_____)
☐ CALSCIENCE (_____)
☑ OTHER Accutest Labs, 495 Technology Ctr W (Marlborough, MA 01752 (508-481-6200)
☐ SPL (_____)
Lab Vendor # (_____)
Lab Vendor #

Please Check Appropriate Box:
☑ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SD&CM ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name: Bob Billman
INCIDENT # (ENV SERVICES): 9 7 2 1 8 8 4 0
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 4/11/14
PAGE: 1 of 1
PO #
SAP #: 3 4 0 0 6 1

SAMPLING COMPANY: URS CORPORATION
LOG CODE:
ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300; ST. LOUIS, MO 63110
PROJECT CONTACT (Hardcopy or PDF Report to): Elizabeth Kunkel, Wendy Pennington, Bob Billman
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: bob.billman@urs.com; elizabeth.kunkel@urs.com; wendy.pennington@urs.com
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

SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA
State: IL
GLOBAL ID NO.:
EDF DELIVERABLE TO (Name, Company, Office Location):
PHONE NO:
E-MAIL:
CONSULTANT PROJECT NO: Roxana Quarterly GW / 21562973.03002
SAMPLER NAME(S) (Print): DMathingly, MMansker
LAB USE ONLY: mc29713

SPECIAL INSTRUCTIONS OR NOTES:
* Please include "J" values on Reports.
* Please provide sample receipt upon login.
*Please contact Accutest PM regarding SVOC extractions.

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD 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 | PID (ppm) | Container PID Readings or Laboratory Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -1 | MW13-ROX-041114 | 4/11/14 | 1025 | water | 2 | | | 2 | 2 | 6 | X | X | X | X | 0 | |
| -2 | MW14-ROX-041114 | | 1240 | | 2 | | | 2 | 2 | 6 | X | X | X | X | | |
| -2S | MW14-ROX-041114MS | | 1240 | | 2 | | | 2 | 2 | 6 | X | X | X | X | | |
| -2SD | MW14-ROX-041114MSD | | 1240 | | 2 | | | 2 | 2 | 6 | X | X | X | X | | |
| -3 | FieldROX-041114 | | 1420 | | 2 | | | 2 | 2 | 6 | X | X | X | X | | |
| -4 | TB-ROX-041114-HCl | | 0000 | | 2 | | | | 2 | 2 | X | | | | | |
| -5 | TB-ROX-041114-ST | | 0000 | | | | | | 2 | 2 | | X | | | | 582, 18C |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | 2.2°, 1.5° |

FIELD NOTES:
TEMPERATURE ON RECEIPT C°

| Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|---|---|---|---|
| DMathingly | FED EX | 4/11/14 | 1600 |
| FX | | 4/12/14 | 10:00 |
| | | | |

05/06 Revision

MC29713: Chain of Custody
Page 1 of 2

# Accutest Laboratories Sample Receipt Summary

**Accutest Job Number:** MC29713 **Client:** URS **Immediate Client Services Action Required:** No

**Date / Time Received:** 4/12/2014 **Delivery Method:** **Client Service Action Required at Login:** No

**Project:** 900 SOUTH CENTRAL **No. Coolers:** 2 **Airbill #'s:**

| 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. Cooler temp verification: | Infared gun | | |
| 3. Cooler media: | Ice (bag) | | |

| 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
www/accutest.com



MC29713: Chain of Custody
Page 2 of 2

# Internal Sample Tracking Chronicle

Shell Oil

Job No: MC29713

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample Number | Method | Analyzed | By | Prepped | By | Test Codes |
|---|---|---|---|---|---|---|
| MC29713-1 Collected: 11-APR-14 10:25 By: DMMM Received: 12-APR-14 By: MW13-ROX-041114 | | | | | | |
| MC29713-1 | SW846 8011 | 15-APR-14 15:33 | SZ | 14-APR-14 | MT | V8011SL |
| MC29713-1 | SW846 8270D BY SIM | 15-APR-14 15:46 | MR | 14-APR-14 | MEW | B8270SIMSL |
| MC29713-1 | SW846 8270D | 16-APR-14 10:21 | WK | 14-APR-14 | MEW | AB8270SL+ |
| MC29713-1 | SW846 8260C | 23-APR-14 15:29 | AMY | | | V8260SL+ |
| MC29713-2 Collected: 11-APR-14 12:40 By: DMMM Received: 12-APR-14 By: MW14-ROX-041114 | | | | | | |
| MC29713-2 | SW846 8011 | 15-APR-14 15:05 | SZ | 14-APR-14 | MT | V8011SL |
| MC29713-2 | SW846 8270D BY SIM | 15-APR-14 15:23 | MR | 14-APR-14 | MEW | B8270SIMSL |
| MC29713-2 | SW846 8270D | 16-APR-14 11:54 | WK | 14-APR-14 | MEW | AB8270SL+ |
| MC29713-2 | SW846 8260C | 23-APR-14 12:52 | AMY | | | V8260SL+ |
| MC29713-3 Collected: 11-APR-14 14:20 By: DMMM Received: 12-APR-14 By: P66-ROX-041114 | | | | | | |
| MC29713-3 | SW846 8011 | 15-APR-14 16:00 | SZ | 14-APR-14 | MT | V8011SL |
| MC29713-3 | SW846 8270D BY SIM | 15-APR-14 16:10 | MR | 14-APR-14 | MEW | B8270SIMSL |
| MC29713-3 | SW846 8270D | 16-APR-14 21:23 | WK | 14-APR-14 | MEW | AB8270SL+ |
| MC29713-3 | SW846 8260C | 23-APR-14 15:56 | AMY | | | V8260SL+ |
| MC29713-4 Collected: 11-APR-14 00:00 By: DMMM Received: 12-APR-14 By: TB-ROX-041114-HCL | | | | | | |
| MC29713-4 | SW846 8260C | 23-APR-14 12:25 | AMY | | | V8260SL+ |
| MC29713-5 Collected: 11-APR-14 00:00 By: DMMM Received: 12-APR-14 By: TB-ROX-041114-ST | | | | | | |
| MC29713-5 | SW846 8011 | 15-APR-14 16:28 | SZ | 14-APR-14 | MT | V8011SL |

# SGS Accutest Internal Chain of Custody



**Job Number:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Received:** 04/12/14



| Sample.Bottle Number | Transfer FROM | Transfer TO | Date/Time | Reason |
|---|---|---|---|---|
| MC29713-1.2 | Walk In Ref #22 | Thomas Abruzzise | 04/14/14 14:09 | Retrieve from Storage |
| MC29713-1.2 | Thomas Abruzzise | | 04/30/14 21:28 | Depleted |
| MC29713-1.3 | VOC Ref #5 | Amy Min Yang | 04/23/14 12:01 | Retrieve from Storage |
| MC29713-1.3 | Amy Min Yang | GCMSV | 04/23/14 12:01 | Load on Instrument |
| MC29713-1.3 | GCMSV | Amy Min Yang | 04/24/14 11:59 | Unload from Instrument |
| MC29713-1.3 | Amy Min Yang | VOC Ref #5 | 04/24/14 11:59 | Return to Storage |
| MC29713-1.3 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29713-1.6 | VOC Ref #5 | Marc Tahtamoni | 04/14/14 19:14 | Retrieve from Storage |
| MC29713-1.6 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29713-2.1 | Walk In Ref #22 | Thomas Abruzzise | 04/14/14 14:09 | Retrieve from Storage |
| MC29713-2.1 | Thomas Abruzzise | | 04/30/14 21:28 | Depleted |
| MC29713-2.4 | Walk In Ref #22 | Thomas Abruzzise | 04/14/14 14:09 | Retrieve from Storage |
| MC29713-2.4 | Thomas Abruzzise | | 04/30/14 21:28 | Depleted |
| MC29713-2.6 | Walk In Ref #22 | Thomas Abruzzise | 04/14/14 14:09 | Retrieve from Storage |
| MC29713-2.6 | Thomas Abruzzise | | 04/30/14 21:28 | Depleted |
| MC29713-2.7 | VOC Ref #5 | Amy Min Yang | 04/23/14 12:01 | Retrieve from Storage |
| MC29713-2.7 | Amy Min Yang | GCMSV | 04/23/14 12:01 | Load on Instrument |
| MC29713-2.7 | GCMSV | Amy Min Yang | 04/24/14 11:59 | Unload from Instrument |
| MC29713-2.7 | Amy Min Yang | VOC Ref #5 | 04/24/14 11:59 | Return to Storage |
| MC29713-2.7 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29713-2.9 | VOC Ref #5 | Amy Min Yang | 04/23/14 12:01 | Retrieve from Storage |
| MC29713-2.9 | Amy Min Yang | GCMSV | 04/23/14 12:01 | Load on Instrument |
| MC29713-2.9 | GCMSV | Amy Min Yang | 04/24/14 11:59 | Unload from Instrument |
| MC29713-2.9 | Amy Min Yang | VOC Ref #5 | 04/24/14 11:59 | Return to Storage |
| MC29713-2.9 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29713-2.11 | VOC Ref #5 | Amy Min Yang | 04/23/14 12:01 | Retrieve from Storage |
| MC29713-2.11 | Amy Min Yang | GCMSV | 04/23/14 12:01 | Load on Instrument |
| MC29713-2.11 | GCMSV | Amy Min Yang | 04/24/14 11:59 | Unload from Instrument |
| MC29713-2.11 | Amy Min Yang | VOC Ref #5 | 04/24/14 11:59 | Return to Storage |
| MC29713-2.11 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29713-2.12 | VOC Ref #5 | Amy Min Yang | 04/23/14 12:01 | Retrieve from Storage |
| MC29713-2.12 | Amy Min Yang | GCMSV | 04/23/14 12:01 | Load on Instrument |
| MC29713-2.12 | GCMSV | Amy Min Yang | 04/24/14 11:59 | Unload from Instrument |
| MC29713-2.12 | Amy Min Yang | VOC Ref #5 | 04/24/14 11:59 | Return to Storage |
| MC29713-2.12 | Scott Parsick | | 06/25/14 13:20 | Disposed |

# SGS Accutest Internal Chain of Custody



**Job Number:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Received:** 04/12/14



| Sample.Bottle Number | Transfer FROM | Transfer TO | Date/Time | Reason |
|---|---|---|---|---|
| MC29713-2.13 | VOC Ref #5 | Marc Tahtamoni | 04/14/14 19:14 | Retrieve from Storage |
| MC29713-2.13 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29713-2.14 | VOC Ref #5 | Marc Tahtamoni | 04/14/14 19:14 | Retrieve from Storage |
| MC29713-2.14 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29713-2.17 | VOC Ref #5 | Marc Tahtamoni | 04/14/14 19:14 | Retrieve from Storage |
| MC29713-2.17 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29713-3.2 | Walk In Ref #22 | Thomas Abruzzise | 04/14/14 14:09 | Retrieve from Storage |
| MC29713-3.2 | Thomas Abruzzise | | 04/30/14 21:28 | Depleted |
| MC29713-3.3 | VOC Ref #5 | Amy Min Yang | 04/23/14 12:01 | Retrieve from Storage |
| MC29713-3.3 | Amy Min Yang | GCMSV | 04/23/14 12:01 | Load on Instrument |
| MC29713-3.3 | GCMSV | Amy Min Yang | 04/24/14 11:59 | Unload from Instrument |
| MC29713-3.3 | Amy Min Yang | VOC Ref #5 | 04/24/14 11:59 | Return to Storage |
| MC29713-3.3 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29713-3.5 | VOC Ref #5 | Marc Tahtamoni | 04/14/14 19:14 | Retrieve from Storage |
| MC29713-3.5 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29713-4.1 | VOC Ref #5 | Amy Min Yang | 04/23/14 12:01 | Retrieve from Storage |
| MC29713-4.1 | Amy Min Yang | GCMSV | 04/23/14 12:01 | Load on Instrument |
| MC29713-4.1 | GCMSV | Amy Min Yang | 04/24/14 11:59 | Unload from Instrument |
| MC29713-4.1 | Amy Min Yang | VOC Ref #5 | 04/24/14 11:59 | Return to Storage |
| MC29713-4.1 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29713-5.2 | VOC Ref #5 | Marc Tahtamoni | 04/14/14 19:14 | Retrieve from Storage |
| MC29713-5.2 | Scott Parsick | | 06/25/14 13:20 | Disposed |

## 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:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1126-MB | V30128.D | 1 | 04/23/14 | AMY | n/a | n/a | MSV1126 |



**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29713-1, MC29713-2, MC29713-3, MC29713-4

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 2.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |

# Method Blank Summary

**Job Number:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1126-MB | V30128.D | 1 | 04/23/14 | AMY | n/a | n/a | MSV1126 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29713-1, MC29713-2, MC29713-3, MC29713-4

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | ug/l | |

# Method Blank Summary



**Job Number:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1126-MB | V30128.D | 1 | 04/23/14 | AMY | n/a | n/a | MSV1126 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29713-1, MC29713-2, MC29713-3, MC29713-4

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 93% | 70-130% |
| 2037-26-5 | Toluene-D8 | 92% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 92% | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

# Blank Spike Summary



**Job Number:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1126-BS | V30125.D | 1 | 04/23/14 | AMY | n/a | n/a | MSV1126 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29713-1, MC29713-2, MC29713-3, MC29713-4

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 50 | 52.2 | 104 | 70-130 |
| 107-02-8 | Acrolein | 250 | 448 | 179* [a] | 70-130 |
| 107-13-1 | Acrylonitrile | 50 | 47.6 | 95 | 70-130 |
| 71-43-2 | Benzene | 50 | 49.7 | 99 | 70-130 |
| 108-86-1 | Bromobenzene | 50 | 50.5 | 101 | 70-130 |
| 74-97-5 | Bromochloromethane | 50 | 47.6 | 95 | 70-130 |
| 75-27-4 | Bromodichloromethane | 50 | 47.3 | 95 | 70-130 |
| 75-25-2 | Bromoform | 50 | 43.5 | 87 | 70-130 |
| 74-83-9 | Bromomethane | 50 | 53.7 | 107 | 70-130 |
| 78-93-3 | 2-Butanone (MEK) | 50 | 51.8 | 104 | 70-130 |
| 104-51-8 | n-Butylbenzene | 50 | 51.2 | 102 | 70-130 |
| 135-98-8 | sec-Butylbenzene | 50 | 51.3 | 103 | 70-130 |
| 98-06-6 | tert-Butylbenzene | 50 | 48.8 | 98 | 70-130 |
| 75-15-0 | Carbon disulfide | 50 | 44.0 | 88 | 70-130 |
| 56-23-5 | Carbon tetrachloride | 50 | 52.4 | 105 | 70-130 |
| 108-90-7 | Chlorobenzene | 50 | 49.8 | 100 | 70-130 |
| 75-00-3 | Chloroethane | 50 | 63.6 | 127 | 70-130 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 50 | 38.7 | 77 | 70-130 |
| 67-66-3 | Chloroform | 50 | 46.3 | 93 | 70-130 |
| 74-87-3 | Chloromethane | 50 | 57.1 | 114 | 70-130 |
| 95-49-8 | o-Chlorotoluene | 50 | 48.7 | 97 | 70-130 |
| 106-43-4 | p-Chlorotoluene | 50 | 49.9 | 100 | 70-130 |
| 124-48-1 | Dibromochloromethane | 50 | 44.2 | 88 | 70-130 |
| 95-50-1 | 1,2-Dichlorobenzene | 50 | 46.9 | 94 | 70-130 |
| 541-73-1 | 1,3-Dichlorobenzene | 50 | 48.6 | 97 | 70-130 |
| 106-46-7 | 1,4-Dichlorobenzene | 50 | 48.9 | 98 | 70-130 |
| 75-71-8 | Dichlorodifluoromethane | 50 | 38.6 | 77 | 70-130 |
| 75-34-3 | 1,1-Dichloroethane | 50 | 48.8 | 98 | 70-130 |
| 107-06-2 | 1,2-Dichloroethane | 50 | 46.7 | 93 | 70-130 |
| 75-35-4 | 1,1-Dichloroethene | 50 | 51.0 | 102 | 70-130 |
| 156-59-2 | cis-1,2-Dichloroethene | 50 | 48.9 | 98 | 70-130 |
| 156-60-5 | trans-1,2-Dichloroethene | 50 | 48.8 | 98 | 70-130 |
| 78-87-5 | 1,2-Dichloropropane | 50 | 52.8 | 106 | 70-130 |
| 142-28-9 | 1,3-Dichloropropane | 50 | 50.4 | 101 | 70-130 |
| 594-20-7 | 2,2-Dichloropropane | 50 | 48.1 | 96 | 70-130 |
| 563-58-6 | 1,1-Dichloropropene | 50 | 49.9 | 100 | 70-130 |

* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1126-BS | V30125.D | 1 | 04/23/14 | AMY | n/a | n/a | MSV1126 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29713-1, MC29713-2, MC29713-3, MC29713-4

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | 50 | 45.3 | 91 | 70-130 |
| 10061-02-6 | trans-1,3-Dichloropropene | 50 | 57.0 | 114 | 70-130 |
| 123-91-1 | 1,4-Dioxane | 250 | 186 | 74 | 70-130 |
| 97-63-2 | Ethyl methacrylate | 50 | 48.2 | 96 | 77-137 |
| 100-41-4 | Ethylbenzene | 50 | 52.8 | 106 | 70-130 |
| 87-68-3 | Hexachlorobutadiene | 50 | 43.8 | 88 | 70-130 |
| 591-78-6 | 2-Hexanone | 50 | 56.6 | 113 | 70-130 |
| 98-82-8 | Isopropylbenzene | 50 | 50.5 | 101 | 70-130 |
| 99-87-6 | p-Isopropyltoluene | 50 | 51.1 | 102 | 70-130 |
| 1634-04-4 | Methyl Tert Butyl Ether | 50 | 47.6 | 95 | 70-130 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 50 | 49.4 | 99 | 70-130 |
| 74-95-3 | Methylene bromide | 50 | 48.8 | 98 | 70-130 |
| 75-09-2 | Methylene chloride | 50 | 48.6 | 97 | 70-130 |
| 91-20-3 | Naphthalene | 50 | 51.9 | 104 | 70-130 |
| 103-65-1 | n-Propylbenzene | 50 | 50.1 | 100 | 70-130 |
| 100-42-5 | Styrene | 50 | 54.6 | 109 | 70-130 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 50 | 52.6 | 105 | 70-130 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 50 | 52.5 | 105 | 70-130 |
| 127-18-4 | Tetrachloroethene | 50 | 50.4 | 101 | 70-130 |
| 108-88-3 | Toluene | 50 | 53.1 | 106 | 70-130 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 50 | 54.2 | 108 | 70-130 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 50 | 45.7 | 91 | 70-130 |
| 71-55-6 | 1,1,1-Trichloroethane | 50 | 49.7 | 99 | 70-130 |
| 79-00-5 | 1,1,2-Trichloroethane | 50 | 52.8 | 106 | 70-130 |
| 79-01-6 | Trichloroethene | 50 | 48.0 | 96 | 70-130 |
| 75-69-4 | Trichlorofluoromethane | 50 | 56.3 | 113 | 70-130 |
| 96-18-4 | 1,2,3-Trichloropropane | 50 | 61.5 | 123 | 70-130 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 50 | 50.6 | 101 | 70-130 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 50 | 50.8 | 102 | 70-130 |
| 108-05-4 | Vinyl Acetate | 50 | 46.5 | 93 | 70-130 |
| 75-01-4 | Vinyl chloride | 50 | 60.3 | 121 | 70-130 |
| | m,p-Xylene | 100 | 106 | 106 | 70-130 |
| 95-47-6 | o-Xylene | 50 | 52.6 | 105 | 70-130 |
| 1330-20-7 | Xylene (total) | 150 | 158 | 105 | 70-130 |

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1126-BS | V30125.D | 1 | 04/23/14 | AMY | n/a | n/a | MSV1126 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29713-1, MC29713-2, MC29713-3, MC29713-4

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 81% | 70-130% |
| 2037-26-5 | Toluene-D8 | 90% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 90% | 70-130% |

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29713-2MS | V30138.D | 1 | 04/23/14 | AMY | n/a | n/a | MSV1126 |
| MC29713-2MSD | V30139.D | 1 | 04/23/14 | AMY | n/a | n/a | MSV1126 |
| MC29713-2 | V30130.D | 1 | 04/23/14 | AMY | n/a | n/a | MSV1126 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29713-1, MC29713-2, MC29713-3, MC29713-4

| CAS No. | Compound | MC29713-2 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 | 38.1 | 76 | 50 | 44.8 | 90 | 16 | 70-130/30 |
| 107-02-8 | Acrolein | ND | | 250 | 404 | 162* a | 250 | 453 | 181* a | 11 | 70-130/30 |
| 107-13-1 | Acrylonitrile | ND | | 50 | 57.0 | 114 | 50 | 62.0 | 124 | 8 | 70-130/30 |
| 71-43-2 | Benzene | 1.7 | | 50 | 52.6 | 102 | 50 | 67.2 | 131* a | 24 | 70-130/30 |
| 108-86-1 | Bromobenzene | ND | | 50 | 50.6 | 101 | 50 | 49.0 | 98 | 3 | 70-130/30 |
| 74-97-5 | Bromochloromethane | ND | | 50 | 48.6 | 97 | 50 | 48.7 | 97 | 0 | 70-130/30 |
| 75-27-4 | Bromodichloromethane | ND | | 50 | 51.2 | 102 | 50 | 47.7 | 95 | 7 | 70-130/30 |
| 75-25-2 | Bromoform | ND | | 50 | 43.2 | 86 | 50 | 40.7 | 81 | 6 | 70-130/30 |
| 74-83-9 | Bromomethane | ND | | 50 | 57.1 | 114 | 50 | 43.4 | 87 | 27 | 70-130/30 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 50 | 41.2 | 82 | 50 | 42.6 | 85 | 3 | 70-130/30 |
| 104-51-8 | n-Butylbenzene | ND | | 50 | 51.4 | 103 | 50 | 49.0 | 98 | 5 | 70-130/30 |
| 135-98-8 | sec-Butylbenzene | ND | | 50 | 49.6 | 99 | 50 | 48.8 | 98 | 2 | 70-130/30 |
| 98-06-6 | tert-Butylbenzene | 0.46 | J | 50 | 48.5 | 96 | 50 | 46.2 | 91 | 5 | 70-130/30 |
| 75-15-0 | Carbon disulfide | ND | | 50 | 45.1 | 90 | 50 | 48.5 | 97 | 7 | 70-130/30 |
| 56-23-5 | Carbon tetrachloride | ND | | 50 | 58.3 | 117 | 50 | 63.0 | 126 | 8 | 70-130/30 |
| 108-90-7 | Chlorobenzene | ND | | 50 | 49.6 | 99 | 50 | 47.7 | 95 | 4 | 70-130/30 |
| 75-00-3 | Chloroethane | ND | | 50 | 68.4 | 137* a | 50 | 53.1 | 106 | 25 | 70-130/30 |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | | 50 | ND | 0* a | 50 | ND | 0* a | nc | 70-130/30 |
| 67-66-3 | Chloroform | ND | | 50 | 49.6 | 99 | 50 | 46.0 | 92 | 8 | 70-130/30 |
| 74-87-3 | Chloromethane | ND | | 50 | 61.5 | 123 | 50 | 44.3 | 89 | 33* b | 70-130/30 |
| 95-49-8 | o-Chlorotoluene | ND | | 50 | 48.5 | 97 | 50 | 45.9 | 92 | 6 | 70-130/30 |
| 106-43-4 | p-Chlorotoluene | ND | | 50 | 50.8 | 102 | 50 | 48.9 | 98 | 4 | 70-130/30 |
| 124-48-1 | Dibromochloromethane | ND | | 50 | 45.8 | 92 | 50 | 43.0 | 86 | 6 | 70-130/30 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 50 | 46.0 | 92 | 50 | 45.1 | 90 | 2 | 70-130/30 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 50 | 48.5 | 97 | 50 | 46.3 | 93 | 5 | 70-130/30 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 50 | 48.6 | 97 | 50 | 46.8 | 94 | 4 | 70-130/30 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 50 | 37.5 | 75 | 50 | 28.4 | 57* a | 28 | 70-130/30 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 50 | 51.4 | 103 | 50 | 51.0 | 102 | 1 | 70-130/30 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 50 | 52.0 | 104 | 50 | 54.4 | 109 | 5 | 70-130/30 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 50 | 53.1 | 106 | 50 | 54.1 | 108 | 2 | 70-130/30 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 50 | 50.2 | 100 | 50 | 51.3 | 103 | 2 | 70-130/30 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 50 | 51.1 | 102 | 50 | 51.3 | 103 | 0 | 70-130/30 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 50 | 54.8 | 110 | 50 | 51.8 | 104 | 6 | 70-130/30 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 50 | 50.4 | 101 | 50 | 49.2 | 98 | 2 | 70-130/30 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 50 | 51.1 | 102 | 50 | 46.4 | 93 | 10 | 70-130/30 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 50 | 54.6 | 109 | 50 | 64.0 | 128 | 16 | 70-130/30 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29713-2MS | V30138.D | 1 | 04/23/14 | AMY | n/a | n/a | MSV1126 |
| MC29713-2MSD | V30139.D | 1 | 04/23/14 | AMY | n/a | n/a | MSV1126 |
| MC29713-2 | V30130.D | 1 | 04/23/14 | AMY | n/a | n/a | MSV1126 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29713-1, MC29713-2, MC29713-3, MC29713-4

| CAS No. | Compound | MC29713-2 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 | 46.1 | 92 | 50 | 44.5 | 89 | 4 | 70-130/30 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 50 | 62.1 | 124 | 50 | 59.6 | 119 | 4 | 70-130/30 |
| 123-91-1 | 1,4-Dioxane | ND | | 250 | 169 | 68* [a] | 250 | 179 | 72 | 6 | 70-130/30 |
| 97-63-2 | Ethyl methacrylate | ND | | 50 | 54.7 | 109 | 50 | 52.8 | 106 | 4 | 72-139/30 |
| 100-41-4 | Ethylbenzene | ND | | 50 | 52.9 | 106 | 50 | 50.9 | 102 | 4 | 70-130/30 |
| 87-68-3 | Hexachlorobutadiene | ND | | 50 | 41.4 | 83 | 50 | 42.6 | 85 | 3 | 70-130/30 |
| 591-78-6 | 2-Hexanone | ND | | 50 | 42.8 | 86 | 50 | 41.8 | 84 | 2 | 70-130/30 |
| 98-82-8 | Isopropylbenzene | ND | | 50 | 49.1 | 98 | 50 | 47.3 | 95 | 4 | 70-130/30 |
| 99-87-6 | p-Isopropyltoluene | ND | | 50 | 50.2 | 100 | 50 | 48.8 | 98 | 3 | 70-130/30 |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | | 50 | 49.6 | 99 | 50 | 49.2 | 98 | 1 | 70-130/30 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 50 | 51.8 | 104 | 50 | 50.2 | 100 | 3 | 70-130/30 |
| 74-95-3 | Methylene bromide | ND | | 50 | 52.4 | 105 | 50 | 49.4 | 99 | 6 | 70-130/30 |
| 75-09-2 | Methylene chloride | ND | | 50 | 49.8 | 100 | 50 | 53.1 | 106 | 6 | 70-130/30 |
| 91-20-3 | Naphthalene | ND | | 50 | 39.3 | 79 | 50 | 53.1 | 106 | 30 | 70-130/30 |
| 103-65-1 | n-Propylbenzene | ND | | 50 | 50.1 | 100 | 50 | 47.3 | 95 | 6 | 70-130/30 |
| 100-42-5 | Styrene | ND | | 50 | 53.9 | 108 | 50 | 51.7 | 103 | 4 | 70-130/30 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 50 | 51.7 | 103 | 50 | 49.1 | 98 | 5 | 70-130/30 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 50 | 51.8 | 104 | 50 | 51.5 | 103 | 1 | 70-130/30 |
| 127-18-4 | Tetrachloroethene | ND | | 50 | 49.3 | 99 | 50 | 47.5 | 95 | 4 | 70-130/30 |
| 108-88-3 | Toluene | ND | | 50 | 55.6 | 111 | 50 | 53.3 | 107 | 4 | 70-130/30 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 50 | 38.3 | 77 | 50 | 50.6 | 101 | 28 | 70-130/30 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 50 | 41.4 | 83 | 50 | 45.5 | 91 | 9 | 70-130/30 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 50 | 53.6 | 107 | 50 | 47.5 | 95 | 12 | 70-130/30 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 50 | 56.6 | 113 | 50 | 54.9 | 110 | 3 | 70-130/30 |
| 79-01-6 | Trichloroethene | ND | | 50 | 50.5 | 101 | 50 | 46.9 | 94 | 7 | 70-130/30 |
| 75-69-4 | Trichlorofluoromethane | ND | | 50 | 63.7 | 127 | 50 | 45.4 | 91 | 34* [b] | 70-130/30 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 50 | 61.8 | 124 | 50 | 58.2 | 116 | 6 | 70-130/30 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 50 | 49.2 | 98 | 50 | 47.7 | 95 | 3 | 70-130/30 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 50 | 49.3 | 99 | 50 | 47.7 | 95 | 3 | 70-130/30 |
| 108-05-4 | Vinyl Acetate | ND | | 50 | 48.3 | 97 | 50 | 49.1 | 98 | 2 | 70-130/30 |
| 75-01-4 | Vinyl chloride | ND | | 50 | 64.8 | 130 | 50 | 49.0 | 98 | 28 | 70-130/30 |
| | m,p-Xylene | ND | | 100 | 105 | 105 | 100 | 100 | 100 | 5 | 70-130/30 |
| 95-47-6 | o-Xylene | ND | | 50 | 50.7 | 101 | 50 | 49.4 | 99 | 3 | 70-130/30 |
| 1330-20-7 | Xylene (total) | ND | | 150 | 155 | 103 | 150 | 150 | 100 | 3 | 70-130/30 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29713-2MS | V30138.D | 1 | 04/23/14 | AMY | n/a | n/a | MSV1126 |
| MC29713-2MSD | V30139.D | 1 | 04/23/14 | AMY | n/a | n/a | MSV1126 |
| MC29713-2 | V30130.D | 1 | 04/23/14 | AMY | n/a | n/a | MSV1126 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29713-1, MC29713-2, MC29713-3, MC29713-4

| CAS No. | Surrogate Recoveries | MS | MSD | MC29713-2 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 83% | 81% | 80% | 70-130% |
| 2037-26-5 | Toluene-D8 | 92% | 92% | 92% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 92% | 92% | 92% | 70-130% |

(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.

# Volatile Internal Standard Area Summary



**Job Number:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSV1126-CC1058 | **Injection Date:** | 04/23/14 |
| **Lab File ID:** | V30124.D | **Injection Time:** | 10:15 |
| **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 | 338780 | 6.59 | 467554 | 7.77 | 235437 | 11.10 | 256981 | 13.31 | 47320 | 3.53 |
| Upper Limit [a] | 677560 | 7.09 | 935108 | 8.27 | 470874 | 11.60 | 513962 | 13.81 | 94640 | 4.03 |
| Lower Limit [b] | 169390 | 6.09 | 233777 | 7.27 | 117719 | 10.60 | 128491 | 12.81 | 23660 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| MSV1126-BS | 334921 | 6.59 | 460754 | 7.77 | 225846 | 11.10 | 247886 | 13.31 | 46635 | 3.52 |
| MSV1126-MB | 237484 | 6.59 | 350347 | 7.77 | 192761 | 11.10 | 184586 | 13.31 | 37728 | 3.52 |
| MC29713-4 | 230775 | 6.59 | 341807 | 7.77 | 186616 | 11.10 | 180524 | 13.31 | 35879 | 3.53 |
| MC29713-2 | 275159 | 6.59 | 350156 | 7.77 | 194396 | 11.10 | 193875 | 13.31 | 44081 | 3.53 |
| ZZZZZZ | 242359 | 6.59 | 338958 | 7.77 | 194285 | 11.10 | 187016 | 13.31 | 39878 | 3.53 |
| ZZZZZZ | 209909 | 6.59 | 310684 | 7.77 | 178170 | 11.10 | 173406 | 13.31 | 48133 | 3.52 |
| ZZZZZZ | 209054 | 6.59 | 299495 | 7.77 | 171864 | 11.10 | 162799 | 13.31 | 36430 | 3.52 |
| ZZZZZZ | 203461 | 6.59 | 299648 | 7.77 | 172857 | 11.10 | 156786 | 13.31 | 36372 | 3.53 |
| ZZZZZZ | 190141 | 6.60 | 287180 | 7.77 | 167039 | 11.10 | 154874 | 13.31 | 40081 | 3.53 |
| MC29713-1 | 235503 | 6.59 | 337392 | 7.77 | 158759 | 11.10 | 162689 | 13.31 | 50463 | 3.53 |
| MC29713-3 | 247708 | 6.59 | 317357 | 7.77 | 195342 | 11.10 | 202566 | 13.31 | 44649 | 3.53 |
| MC29713-2MS | 312452 | 6.59 | 419072 | 7.77 | 223149 | 11.10 | 243823 | 13.31 | 52715 | 3.53 |
| MC29713-2MSD | 401199 | 6.58 | 432339 | 7.76 | 226936 | 11.10 | 249652 | 13.31 | 71079 | 3.52 |
| ZZZZZZ | 275946 | 6.59 | 407894 | 7.77 | 221271 | 11.10 | 237528 | 13.31 | 60316 | 3.53 |
| ZZZZZZ | 261885 | 6.58 | 384192 | 7.76 | 209880 | 11.10 | 212237 | 13.31 | 44314 | 3.52 |
| ZZZZZZ | 301640 | 6.58 | 462145 | 7.76 | 255177 | 11.10 | 239536 | 13.31 | 53762 | 3.52 |
| ZZZZZZ | 225324 | 6.58 | 328568 | 7.76 | 190669 | 11.10 | 184253 | 13.31 | 40631 | 3.52 |
| ZZZZZZ | 213312 | 6.58 | 318255 | 7.76 | 179131 | 11.10 | 176268 | 13.31 | 40863 | 3.52 |
| ZZZZZZ | 264450 | 6.59 | 515521 | 7.76 | 177427 | 11.10 | 164140 | 13.31 | 49911 | 3.52 |
| ZZZZZZ | 200371 | 6.59 | 303318 | 7.76 | 171294 | 11.10 | 162373 | 13.31 | 42353 | 3.53 |
| ZZZZZZ | 178918 | 6.58 | 267629 | 7.76 | 159574 | 11.10 | 151938 | 13.31 | 39230 | 3.52 |
| ZZZZZZ | 242957 | 6.59 | 381552 | 7.76 | 222923 | 11.10 | 201308 | 13.31 | 41086 | 3.52 |
| ZZZZZZ | 202932 | 6.58 | 285257 | 7.76 | 153855 | 11.09 | 146882 | 13.31 | 32544 | 3.52 |
| ZZZZZZ | 204244 | 6.58 | 282688 | 7.76 | 159209 | 11.09 | 149042 | 13.31 | 32287 | 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.

# Volatile Surrogate Recovery Summary



**Job Number:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 |
|---|---|---|---|---|
| MC29713-1 | V30136.D | 102 | 76 | 96 |
| MC29713-2 | V30130.D | 80 | 92 | 92 |
| MC29713-3 | V30137.D | 81 | 106 | 93 |
| MC29713-4 | V30129.D | 94 | 93 | 90 |
| MC29713-2MS | V30138.D | 83 | 92 | 92 |
| MC29713-2MSD | V30139.D | 81 | 92 | 92 |
| MSV1126-BS | V30125.D | 81 | 90 | 90 |
| MSV1126-MB | V30128.D | 93 | 92 | 92 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = Dibromofluoromethane | 70-130% |
| S2 = Toluene-D8 | 70-130% |
| S3 = 4-Bromofluorobenzene | 70-130% |

## GC/MS Semi-volatiles

7

### 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:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37591-MB | F72254.D | 1 | 04/16/14 | WK | 04/14/14 | OP37591 | MSF3215 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29713-1, MC29713-2, MC29713-3

| 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 | 0.31 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 10 | 0.83 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 10 | 0.40 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 10 | 0.56 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 20 | 2.5 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 10 | 0.23 | ug/l | |
| | 3&4-Methylphenol | ND | 10 | 0.47 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 10 | 2.9 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 20 | 0.53 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 10 | 1.1 | ug/l | |
| 108-95-2 | Phenol | ND | 5.0 | 0.30 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 10 | 0.37 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 10 | 0.18 | ug/l | |
| 62-53-3 | Aniline | ND | 10 | 0.64 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.0 | 0.47 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.0 | 0.53 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 10 | 2.3 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.0 | 0.31 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 10 | 0.56 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.0 | 0.29 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.0 | 0.35 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.0 | 0.33 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.0 | 0.25 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.0 | 0.24 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 10 | 0.46 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 10 | 0.30 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.0 | 0.27 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.0 | 0.26 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.72 | 5.0 | 0.17 | ug/l | J |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.0 | 0.28 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.0 | 0.20 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.0 | 0.34 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 0.41 | 2.0 | 0.33 | ug/l | J |
| 118-74-1 | Hexachlorobenzene | ND | 5.0 | 0.29 | ug/l | |

# Method Blank Summary

**Job Number:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37591-MB | F72254.D | 1 | 04/16/14 | WK | 04/14/14 | OP37591 | MSF3215 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29713-1, MC29713-2, MC29713-3

| 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 | 0.30 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.0 | 0.45 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 0.40 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 1.4 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 2.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.0 | 0.39 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.0 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.0 | 0.40 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.0 | 0.19 | ug/l | |
| 110-86-1 | Pyridine | ND | 10 | 0.52 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 49% | 15-110% |
| 4165-62-2 | Phenol-d5 | 32% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 80% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 78% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 78% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 90% | 30-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile | | 0 | ug/l | |

# Method Blank Summary



**Job Number:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37592-MB | I88565.D | 1 | 04/15/14 | MR | 04/14/14 | OP37592 | MSI3298 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D BY SIM

MC29713-1, MC29713-2, MC29713-3



| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | ND | 0.10 | 0.069 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.10 | 0.050 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.10 | 0.092 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.050 | 0.020 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.10 | 0.029 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.050 | 0.032 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.10 | 0.027 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.10 | 0.039 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.10 | 0.024 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.10 | 0.032 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.10 | 0.041 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.10 | 0.099 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.10 | 0.031 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.20 | 0.050 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.20 | 0.074 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 0.050 | 0.013 | ug/l | |
| 129-00-0 | Pyrene | ND | 0.10 | 0.038 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 70% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 68% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 97% | 30-130% |

# Blank Spike Summary



**Job Number:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37591-BS | F72255.D | 1 | 04/16/14 | WK | 04/14/14 | OP37591 | MSF3215 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29713-1, MC29713-2, MC29713-3

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | 50 | 16.5 | 33 | 30-130 |
| 95-57-8 | 2-Chlorophenol | 50 | 39.0 | 78 | 30-130 |
| 59-50-7 | 4-Chloro-3-methyl phenol | 50 | 41.5 | 83 | 30-130 |
| 120-83-2 | 2,4-Dichlorophenol | 50 | 40.9 | 82 | 30-130 |
| 105-67-9 | 2,4-Dimethylphenol | 50 | 36.3 | 73 | 30-130 |
| 51-28-5 | 2,4-Dinitrophenol | 50 | 39.6 | 79 | 30-130 |
| 534-52-1 | 4,6-Dinitro-o-cresol | 50 | 48.3 | 97 | 30-130 |
| 95-48-7 | 2-Methylphenol | 50 | 35.3 | 71 | 30-130 |
| | 3&4-Methylphenol | 100 | 66.2 | 66 | 30-130 |
| 88-75-5 | 2-Nitrophenol | 50 | 41.6 | 83 | 30-130 |
| 100-02-7 | 4-Nitrophenol | 50 | 19.2 | 38 | 30-130 |
| 87-86-5 | Pentachlorophenol | 50 | 41.4 | 83 | 30-130 |
| 108-95-2 | Phenol | 50 | 17.6 | 35 | 30-130 |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | 47.3 | 95 | 30-130 |
| 88-06-2 | 2,4,6-Trichlorophenol | 50 | 45.5 | 91 | 30-130 |
| 62-53-3 | Aniline | 50 | 29.3 | 59 | 40-140 |
| 101-55-3 | 4-Bromophenyl phenyl ether | 50 | 48.4 | 97 | 40-140 |
| 85-68-7 | Butyl benzyl phthalate | 50 | 50.3 | 101 | 40-140 |
| 100-51-6 | Benzyl Alcohol | 50 | 34.7 | 69 | 40-140 |
| 91-58-7 | 2-Chloronaphthalene | 50 | 46.8 | 94 | 40-140 |
| 106-47-8 | 4-Chloroaniline | 50 | 38.5 | 77 | 40-140 |
| 111-91-1 | bis(2-Chloroethoxy)methane | 50 | 45.6 | 91 | 40-140 |
| 111-44-4 | bis(2-Chloroethyl)ether | 50 | 45.4 | 91 | 40-140 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 50 | 54.0 | 108 | 40-140 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 50 | 46.0 | 92 | 40-140 |
| 122-66-7 | 1,2-Diphenylhydrazine | 50 | 50.8 | 102 | 40-140 |
| 121-14-2 | 2,4-Dinitrotoluene | 50 | 48.1 | 96 | 40-140 |
| 606-20-2 | 2,6-Dinitrotoluene | 50 | 47.9 | 96 | 40-140 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 50 | 44.1 | 88 | 40-140 |
| 132-64-9 | Dibenzofuran | 50 | 44.0 | 88 | 40-140 |
| 84-74-2 | Di-n-butyl phthalate | 50 | 48.6 | 97 | 40-140 |
| 117-84-0 | Di-n-octyl phthalate | 50 | 54.2 | 108 | 40-140 |
| 84-66-2 | Diethyl phthalate | 50 | 49.0 | 98 | 40-140 |
| 131-11-3 | Dimethyl phthalate | 50 | 49.1 | 98 | 40-140 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 50 | 52.4 | 105 | 40-140 |
| 118-74-1 | Hexachlorobenzene | 50 | 46.3 | 93 | 40-140 |

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37591-BS | F72255.D | 1 | 04/16/14 | WK | 04/14/14 | OP37591 | MSF3215 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29713-1, MC29713-2, MC29713-3

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 77-47-4 | Hexachlorocyclopentadiene | 50 | 22.4 | 45 | 40-140 |
| 67-72-1 | Hexachloroethane | 50 | 27.7 | 55 | 40-140 |
| 78-59-1 | Isophorone | 50 | 41.1 | 82 | 40-140 |
| 88-74-4 | 2-Nitroaniline | 50 | 47.2 | 94 | 40-140 |
| 99-09-2 | 3-Nitroaniline | 50 | 45.6 | 91 | 40-140 |
| 100-01-6 | 4-Nitroaniline | 50 | 46.5 | 93 | 40-140 |
| 98-95-3 | Nitrobenzene | 50 | 42.6 | 85 | 40-140 |
| 62-75-9 | n-Nitrosodimethylamine | 50 | 29.1 | 58 | 40-140 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 50 | 48.8 | 98 | 40-140 |
| 86-30-6 | N-Nitrosodiphenylamine | 50 | 45.3 | 91 | 40-140 |
| 110-86-1 | Pyridine | 50 | 24.6 | 49 | 40-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 46% | 15-110% |
| 4165-62-2 | Phenol-d5 | 30% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 80% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 74% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 79% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 91% | 30-130% |

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37592-BS | I88566.D | 1 | 04/15/14 | MR | 04/14/14 | OP37592 | MSI3298 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D BY SIM

MC29713-1, MC29713-2, MC29713-3



| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 50 | 38.5 | 77 | 40-140 |
| 208-96-8 | Acenaphthylene | 50 | 35.8 | 72 | 40-140 |
| 120-12-7 | Anthracene | 50 | 39.8 | 80 | 40-140 |
| 56-55-3 | Benzo(a)anthracene | 50 | 43.8 | 88 | 40-140 |
| 50-32-8 | Benzo(a)pyrene | 50 | 41.5 | 83 | 40-140 |
| 205-99-2 | Benzo(b)fluoranthene | 50 | 46.8 | 94 | 40-140 |
| 191-24-2 | Benzo(g,h,i)perylene | 50 | 46.6 | 93 | 40-140 |
| 207-08-9 | Benzo(k)fluoranthene | 50 | 41.4 | 83 | 40-140 |
| 218-01-9 | Chrysene | 50 | 41.7 | 83 | 40-140 |
| 53-70-3 | Dibenzo(a,h)anthracene | 50 | 49.8 | 100 | 40-140 |
| 206-44-0 | Fluoranthene | 50 | 42.6 | 85 | 40-140 |
| 86-73-7 | Fluorene | 50 | 41.4 | 83 | 40-140 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 50 | 48.0 | 96 | 40-140 |
| 90-12-0 | 1-Methylnaphthalene | 50 | 36.7 | 73 | 40-140 |
| 91-57-6 | 2-Methylnaphthalene | 50 | 34.5 | 69 | 40-140 |
| 85-01-8 | Phenanthrene | 50 | 40.4 | 81 | 40-140 |
| 129-00-0 | Pyrene | 50 | 42.3 | 85 | 40-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 69% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 67% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 90% | 30-130% |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: MC29713
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37591-MS | F72256.D | 1 | 04/16/14 | WK | 04/14/14 | OP37591 | MSF3215 |
| OP37591-MSD | F72257.D | 1 | 04/16/14 | WK | 04/14/14 | OP37591 | MSF3215 |
| MC29713-2 | F72262.D | 1 | 04/16/14 | WK | 04/14/14 | OP37591 | MSF3215 |

The QC reported here applies to the following samples: Method: SW846 8270D

MC29713-1, MC29713-2, MC29713-3

| CAS No. | Compound | MC29713-2 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 | | 58.1 | 26.2 | 45 | 58.8 | 26.5 | 45 | 1 | 30-130/20 |
| 95-57-8 | 2-Chlorophenol | ND | | 58.1 | 48.3 | 83 | 58.8 | 47.4 | 81 | 2 | 30-130/20 |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | | 58.1 | 53.4 | 92 | 58.8 | 53.4 | 91 | 0 | 30-130/20 |
| 120-83-2 | 2,4-Dichlorophenol | ND | | 58.1 | 51.8 | 89 | 58.8 | 51.8 | 88 | 0 | 30-130/20 |
| 105-67-9 | 2,4-Dimethylphenol | ND | | 58.1 | 52.2 | 90 | 58.8 | 51.2 | 87 | 2 | 30-130/20 |
| 51-28-5 | 2,4-Dinitrophenol | ND | | 58.1 | 54.6 | 94 | 58.8 | 55.8 | 95 | 2 | 30-130/20 |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | | 58.1 | 62.4 | 107 | 58.8 | 61.3 | 104 | 2 | 30-130/20 |
| 95-48-7 | 2-Methylphenol | ND | | 58.1 | 46.1 | 79 | 58.8 | 43.9 | 75 | 5 | 30-130/20 |
| | 3&4-Methylphenol | ND | | 116 | 86.7 | 75 | 118 | 84.6 | 72 | 2 | 30-130/20 |
| 88-75-5 | 2-Nitrophenol | ND | | 58.1 | 54.1 | 93 | 58.8 | 52.5 | 89 | 3 | 30-130/20 |
| 100-02-7 | 4-Nitrophenol | ND | | 58.1 | 25.6 | 44 | 58.8 | 25.9 | 44 | 1 | 30-130/20 |
| 87-86-5 | Pentachlorophenol | ND | | 58.1 | 55.7 | 96 | 58.8 | 53.0 | 90 | 5 | 30-130/20 |
| 108-95-2 | Phenol | ND | | 58.1 | 24.0 | 41 | 58.8 | 23.0 | 39 | 4 | 30-130/20 |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | | 58.1 | 57.1 | 98 | 58.8 | 55.5 | 94 | 3 | 30-130/20 |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | | 58.1 | 55.7 | 96 | 58.8 | 56.7 | 96 | 2 | 30-130/20 |
| 62-53-3 | Aniline | ND | | 58.1 | 31.8 | 55 | 58.8 | 34.5 | 59 | 8 | 40-140/20 |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | | 58.1 | 57.3 | 99 | 58.8 | 57.3 | 97 | 0 | 40-140/20 |
| 85-68-7 | Butyl benzyl phthalate | ND | | 58.1 | 61.6 | 106 | 58.8 | 61.0 | 104 | 1 | 40-140/20 |
| 100-51-6 | Benzyl Alcohol | ND | | 58.1 | 43.6 | 75 | 58.8 | 41.8 | 71 | 4 | 40-140/20 |
| 91-58-7 | 2-Chloronaphthalene | ND | | 58.1 | 55.3 | 95 | 58.8 | 55.7 | 95 | 1 | 40-140/20 |
| 106-47-8 | 4-Chloroaniline | ND | | 58.1 | 42.6 | 73 | 58.8 | 45.4 | 77 | 6 | 40-140/20 |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | | 58.1 | 55.3 | 95 | 58.8 | 54.9 | 93 | 1 | 40-140/20 |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | | 58.1 | 54.3 | 93 | 58.8 | 53.4 | 91 | 2 | 40-140/20 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | | 58.1 | 65.4 | 112 | 58.8 | 63.0 | 107 | 4 | 40-140/20 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | | 58.1 | 54.9 | 94 | 58.8 | 54.8 | 93 | 0 | 40-140/20 |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | | 58.1 | 60.3 | 104 | 58.8 | 59.0 | 100 | 2 | 40-140/20 |
| 121-14-2 | 2,4-Dinitrotoluene | ND | | 58.1 | 57.8 | 99 | 58.8 | 57.1 | 97 | 1 | 40-140/20 |
| 606-20-2 | 2,6-Dinitrotoluene | ND | | 58.1 | 56.8 | 98 | 58.8 | 56.5 | 96 | 1 | 40-140/20 |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | | 58.1 | 14.8 | 25* [a] | 58.8 | 33.0 | 56 | 76* [b] | 40-140/20 |
| 132-64-9 | Dibenzofuran | ND | | 58.1 | 52.7 | 91 | 58.8 | 51.3 | 87 | 3 | 40-140/20 |
| 84-74-2 | Di-n-butyl phthalate | 0.82 | JB | 58.1 | 60.4 | 102 | 58.8 | 58.8 | 99 | 3 | 40-140/20 |
| 117-84-0 | Di-n-octyl phthalate | ND | | 58.1 | 65.0 | 112 | 58.8 | 64.8 | 110 | 0 | 40-140/20 |
| 84-66-2 | Diethyl phthalate | ND | | 58.1 | 58.4 | 100 | 58.8 | 57.9 | 98 | 1 | 40-140/20 |
| 131-11-3 | Dimethyl phthalate | ND | | 58.1 | 58.5 | 101 | 58.8 | 57.6 | 98 | 2 | 40-140/20 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 0.69 | JB | 58.1 | 64.1 | 109 | 58.8 | 64.0 | 108 | 0 | 40-140/20 |
| 118-74-1 | Hexachlorobenzene | ND | | 58.1 | 55.3 | 95 | 58.8 | 55.5 | 94 | 0 | 40-140/20 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37591-MS | F72256.D | 1 | 04/16/14 | WK | 04/14/14 | OP37591 | MSF3215 |
| OP37591-MSD | F72257.D | 1 | 04/16/14 | WK | 04/14/14 | OP37591 | MSF3215 |
| MC29713-2 | F72262.D | 1 | 04/16/14 | WK | 04/14/14 | OP37591 | MSF3215 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29713-1, MC29713-2, MC29713-3



| CAS No. | Compound | MC29713-2 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 | | 58.1 | 27.9 | 48 | 58.8 | 27.2 | 46 | 3 | 40-140/20 |
| 67-72-1 | Hexachloroethane | ND | | 58.1 | 34.1 | 59 | 58.8 | 35.2 | 60 | 3 | 40-140/20 |
| 78-59-1 | Isophorone | ND | | 58.1 | 50.6 | 87 | 58.8 | 50.3 | 86 | 1 | 40-140/20 |
| 88-74-4 | 2-Nitroaniline | ND | | 58.1 | 56.3 | 97 | 58.8 | 57.8 | 98 | 3 | 40-140/20 |
| 99-09-2 | 3-Nitroaniline | ND | | 58.1 | 49.7 | 85 | 58.8 | 52.0 | 88 | 5 | 40-140/20 |
| 100-01-6 | 4-Nitroaniline | ND | | 58.1 | 52.2 | 90 | 58.8 | 54.1 | 92 | 4 | 40-140/20 |
| 98-95-3 | Nitrobenzene | ND | | 58.1 | 52.6 | 90 | 58.8 | 51.5 | 88 | 2 | 40-140/20 |
| 62-75-9 | n-Nitrosodimethylamine | ND | | 58.1 | 37.4 | 64 | 58.8 | 35.7 | 61 | 5 | 40-140/20 |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | | 58.1 | 57.9 | 100 | 58.8 | 56.7 | 96 | 2 | 40-140/20 |
| 86-30-6 | N-Nitrosodiphenylamine | ND | | 58.1 | 55.7 | 96 | 58.8 | 54.7 | 93 | 2 | 40-140/20 |
| 110-86-1 | Pyridine | ND | | 58.1 | 30.3 | 52 | 58.8 | 30.4 | 52 | 0 | 40-140/20 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29713-2 | Limits |
|---|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 50% | 48% | 51% | 15-110% |
| 4165-62-2 | Phenol-d5 | 34% | 32% | 34% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 90% | 82% | 86% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 84% | 81% | 78% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 78% | 76% | 78% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 92% | 89% | 93% | 30-130% |

(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:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37592-MS | I88567.D | 1 | 04/15/14 | MR | 04/14/14 | OP37592 | MSI3298 |
| OP37592-MSD | I88568.D | 1 | 04/15/14 | MR | 04/14/14 | OP37592 | MSI3298 |
| MC29713-2 | I88569.D | 1 | 04/15/14 | MR | 04/14/14 | OP37592 | MSI3298 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D BY SIM

MC29713-1, MC29713-2, MC29713-3



| CAS No. | Compound | MC29713-2 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 | 0.37 | | 58.1 | 47.6 | 81 | 58.8 | 46.9 | 79 | 1 | 40-140/20 |
| 208-96-8 | Acenaphthylene | 0.089 | J | 58.1 | 44.5 | 76 | 58.8 | 43.5 | 74 | 2 | 40-140/20 |
| 120-12-7 | Anthracene | ND | | 58.1 | 48.3 | 83 | 58.8 | 47.5 | 81 | 2 | 40-140/20 |
| 56-55-3 | Benzo(a)anthracene | ND | | 58.1 | 53.0 | 91 | 58.8 | 53.3 | 91 | 1 | 40-140/20 |
| 50-32-8 | Benzo(a)pyrene | ND | | 58.1 | 50.5 | 87 | 58.8 | 50.7 | 86 | 0 | 40-140/20 |
| 205-99-2 | Benzo(b)fluoranthene | ND | | 58.1 | 55.9 | 96 | 58.8 | 56.6 | 96 | 1 | 40-140/20 |
| 191-24-2 | Benzo(g,h,i)perylene | ND | | 58.1 | 56.1 | 96 | 58.8 | 56.6 | 96 | 1 | 40-140/20 |
| 207-08-9 | Benzo(k)fluoranthene | ND | | 58.1 | 50.2 | 86 | 58.8 | 50.7 | 86 | 1 | 40-140/20 |
| 218-01-9 | Chrysene | ND | | 58.1 | 50.4 | 87 | 58.8 | 50.4 | 86 | 0 | 40-140/20 |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | | 58.1 | 60.2 | 104 | 58.8 | 60.2 | 102 | 0 | 40-140/20 |
| 206-44-0 | Fluoranthene | ND | | 58.1 | 51.3 | 88 | 58.8 | 51.8 | 88 | 1 | 40-140/20 |
| 86-73-7 | Fluorene | 0.30 | | 58.1 | 51.5 | 88 | 58.8 | 49.3 | 83 | 4 | 40-140/20 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | | 58.1 | 58.2 | 100 | 58.8 | 58.0 | 99 | 0 | 40-140/20 |
| 90-12-0 | 1-Methylnaphthalene | 1.8 | | 58.1 | 47.3 | 78 | 58.8 | 45.2 | 74 | 5 | 40-140/20 |
| 91-57-6 | 2-Methylnaphthalene | ND | | 58.1 | 42.9 | 74 | 58.8 | 41.6 | 71 | 3 | 40-140/20 |
| 85-01-8 | Phenanthrene | ND | | 58.1 | 47.9 | 82 | 58.8 | 48.3 | 82 | 1 | 40-140/20 |
| 129-00-0 | Pyrene | ND | | 58.1 | 50.7 | 87 | 58.8 | 51.8 | 88 | 2 | 40-140/20 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29713-2 | Limits |
|---|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 72% | 68% | 73% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 71% | 67% | 69% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 95% | 92% | 99% | 30-130% |

* = Outside of Control Limits.

# Semivolatile Internal Standard Area Summary



**Job Number:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSF3215-CC3181 | **Injection Date:** | 04/16/14 |
| **Lab File ID:** | F72253.D | **Injection Time:** | 08:03 |
| **Instrument ID:** | GCMSF | **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 | 427461 | 4.21 | 1552163 | 5.26 | 907082 | 6.77 | 1524506 | 8.07 | 1581238 | 10.65 | 1469359 | 12.33 |
| Upper Limit [a] | 854922 | 4.71 | 3104326 | 5.76 | 1814164 | 7.27 | 3049012 | 8.57 | 3162476 | 11.15 | 2938718 | 12.83 |
| Lower Limit [b] | 213731 | 3.71 | 776082 | 4.76 | 453541 | 6.27 | 762253 | 7.57 | 790619 | 10.15 | 734680 | 11.83 |
| **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** |
| OP37591-MB | 364791 | 4.21 | 1338636 | 5.25 | 782025 | 6.77 | 1343731 | 8.07 | 1446139 | 10.64 | 1360191 | 12.33 |
| OP37591-BS | 388967 | 4.21 | 1428659 | 5.25 | 815322 | 6.77 | 1372781 | 8.07 | 1442809 | 10.64 | 1335992 | 12.33 |
| OP37591-MS | 370143 | 4.21 | 1344949 | 5.26 | 801894 | 6.77 | 1332389 | 8.07 | 1428703 | 10.64 | 1354569 | 12.33 |
| OP37591-MSD | 349289 | 4.21 | 1262960 | 5.26 | 757121 | 6.77 | 1291675 | 8.07 | 1378454 | 10.64 | 1295894 | 12.33 |
| MC29713-1 | 346933 | 4.21 | 1272414 | 5.25 | 732561 | 6.77 | 1270672 | 8.07 | 1375355 | 10.64 | 1331542 | 12.33 |
| ZZZZZZ | 333966 | 4.21 | 1212494 | 5.25 | 718193 | 6.77 | 1224062 | 8.07 | 1357191 | 10.64 | 1273737 | 12.33 |
| ZZZZZZ | 383757 | 4.21 | 1406878 | 5.25 | 826531 | 6.77 | 1418251 | 8.07 | 1524211 | 10.64 | 1587502 | 12.33 |
| ZZZZZZ | 336588 | 4.21 | 1230139 | 5.25 | 732035 | 6.77 | 1254345 | 8.07 | 1381422 | 10.64 | 1375273 | 12.33 |
| MC29713-2 | 276182 | 4.21 | 1010486 | 5.25 | 617123 | 6.77 | 1086938 | 8.07 | 1230875 | 10.64 | 1223227 | 12.33 |
| OP37599-MB | 494843 | 4.21 | 1822976 | 5.25 | 1059270 | 6.77 | 1759537 | 8.07 | 1782372 | 10.64 | 1620008 | 12.33 |
| OP37599-BS | 429894 | 4.21 | 1566849 | 5.26 | 895199 | 6.77 | 1510772 | 8.07 | 1575937 | 10.64 | 1468044 | 12.33 |
| OP37599-MS | 400947 | 4.21 | 1456310 | 5.26 | 835719 | 6.78 | 1411423 | 8.07 | 1459800 | 10.64 | 1397661 | 12.33 |
| OP37599-MSD | 448746 | 4.21 | 1622118 | 5.26 | 953499 | 6.77 | 1602832 | 8.07 | 1667638 | 10.64 | 1553735 | 12.33 |
| MC29722-1 | 405184 | 4.21 | 1450826 | 5.26 | 840230 | 6.77 | 1400777 | 8.07 | 1497276 | 10.64 | 1429893 | 12.33 |

**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:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSF3216-CC3181 | **Injection Date:** | 04/16/14 |
| **Lab File ID:** | F72269.D | **Injection Time:** | 14:43 |
| **Instrument ID:** | GCMSF | **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 | 532860 | 4.21 | 1942999 | 5.26 | 1142898 | 6.77 | 1958306 | 8.07 | 2047693 | 10.64 | 1964039 | 12.33 |
| Upper Limit [a] | 1065720 | 4.71 | 3885998 | 5.76 | 2285796 | 7.27 | 3916612 | 8.57 | 4095386 | 11.14 | 3928078 | 12.83 |
| Lower Limit [b] | 266430 | 3.71 | 971500 | 4.76 | 571449 | 6.27 | 979153 | 7.57 | 1023847 | 10.14 | 982020 | 11.83 |
| **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** |
| OP37623-MB | 430408 | 4.21 | 1544327 | 5.26 | 905478 | 6.77 | 1547462 | 8.07 | 1700085 | 10.64 | 1602197 | 12.33 |
| OP37623-BS | 399927 | 4.21 | 1451318 | 5.26 | 851046 | 6.77 | 1482694 | 8.07 | 1598771 | 10.64 | 1515750 | 12.33 |
| OP37623-MS | 453764 | 4.21 | 1628066 | 5.26 | 956526 | 6.77 | 1630540 | 8.07 | 1768304 | 10.64 | 1724429 | 12.33 |
| OP37623-MSD | 518830 | 4.21 | 1874514 | 5.26 | 1108702 | 6.77 | 1906164 | 8.07 | 1953512 | 10.65 | 1850083 | 12.33 |
| MC29400-8 | 519605 | 4.21 | 1847270 | 5.26 | 1087088 | 6.77 | 1834740 | 8.07 | 1968709 | 10.64 | 1848156 | 12.33 |
| ZZZZZZ | 513356 | 4.21 | 1865665 | 5.25 | 1088301 | 6.77 | 1860334 | 8.07 | 2031244 | 10.64 | 1961573 | 12.33 |
| ZZZZZZ | 462482 | 4.21 | 1650839 | 5.26 | 985442 | 6.77 | 1678039 | 8.07 | 1862777 | 10.64 | 1784045 | 12.33 |
| ZZZZZZ | 473156 | 4.21 | 1687534 | 5.26 | 996939 | 6.77 | 1668717 | 8.07 | 1760650 | 10.64 | 1643548 | 12.33 |
| ZZZZZZ | 514408 | 4.21 | 1846921 | 5.25 | 1067837 | 6.77 | 1816621 | 8.07 | 1937232 | 10.64 | 1821908 | 12.33 |
| ZZZZZZ | 519766 | 4.21 | 1868159 | 5.25 | 1089802 | 6.77 | 1846276 | 8.07 | 1939409 | 10.64 | 1815337 | 12.33 |
| ZZZZZZ | 505250 | 4.21 | 1844517 | 5.25 | 1065250 | 6.77 | 1818859 | 8.07 | 1934319 | 10.64 | 1812412 | 12.33 |
| ZZZZZZ | 514207 | 4.21 | 1814889 | 5.25 | 1090067 | 6.77 | 1811297 | 8.07 | 1921826 | 10.64 | 1888500 | 12.33 |
| ZZZZZZ | 532564 | 4.21 | 1926562 | 5.25 | 1136033 | 6.77 | 1934895 | 8.07 | 2077383 | 10.64 | 2007288 | 12.33 |
| ZZZZZZ | 520805 | 4.21 | 1877449 | 5.25 | 1121284 | 6.78 | 1876584 | 8.07 | 2049082 | 10.64 | 2168167 | 12.34 |
| ZZZZZZ | 455031 | 4.21 | 1656459 | 5.26 | 975525 | 6.77 | 1648671 | 8.07 | 1782208 | 10.64 | 1826052 | 12.33 |
| ZZZZZZ | 464837 | 4.21 | 1681675 | 5.26 | 978944 | 6.77 | 1669751 | 8.07 | 1781607 | 10.64 | 1824242 | 12.33 |
| MC29713-3 | 507071 | 4.21 | 1781983 | 5.26 | 1142059 | 6.77 | 1791218 | 8.07 | 1929940 | 10.64 | 1912833 | 12.33 |
| ZZZZZZ | 469836 | 4.21 | 1690415 | 5.26 | 986548 | 6.77 | 1681861 | 8.07 | 1766372 | 10.64 | 1741389 | 12.32 |
| ZZZZZZ | 505498 | 4.21 | 1833625 | 5.26 | 1083125 | 6.77 | 1850211 | 8.07 | 1995004 | 10.64 | 2004572 | 12.33 |
| ZZZZZZ | 570696 | 4.21 | 2029894 | 5.25 | 1190550 | 6.77 | 1989575 | 8.07 | 2097587 | 10.64 | 2133505 | 12.33 |
| ZZZZZZ | 883567 | 4.21 | 3051673 | 5.26 | 1706789 | 6.77 | 2598714 | 8.07 | 2461234 | 10.64 | 2455977 | 12.34 |
| ZZZZZZ | 831709 | 4.21 | 2848401 | 5.26 | 1591127 | 6.77 | 2491649 | 8.07 | 2296711 | 10.64 | 2232661 | 12.33 |
| ZZZZZZ | 876883 | 4.21 | 2990179 | 5.26 | 1656607 | 6.78 | 2609477 | 8.07 | 2369140 | 10.64 | 2448554 | 12.33 |
| ZZZZZZ | 861105 | 4.21 | 2998352 | 5.26 | 1641799 | 6.78 | 2512454 | 8.07 | 2316266 | 10.64 | 2466420 | 12.33 |

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:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSI3298-CC3238 | **Injection Date:** | 04/15/14 |
| **Lab File ID:** | I88552.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 | 332886 | 4.01 | 819718 | 5.05 | 495991 | 6.58 | 858008 | 7.96 | 639528 | 10.74 | 1535582 | 12.21 |
| Upper Limit [a] | 665772 | 4.51 | 1639436 | 5.55 | 991982 | 7.08 | 1716016 | 8.46 | 1279056 | 11.24 | 3071164 | 12.71 |
| Lower Limit [b] | 166443 | 3.51 | 409859 | 4.55 | 247996 | 6.08 | 429004 | 7.46 | 319764 | 10.24 | 767791 | 11.71 |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OP37572-MB | 272532 | 4.01 | 659884 | 5.05 | 395853 | 6.58 | 677617 | 7.95 | 496140 | 10.73 | 1205487 | 12.21 |
| OP37572-BS | 283867 | 4.01 | 691516 | 5.06 | 409526 | 6.58 | 676338 | 7.96 | 510226 | 10.74 | 1236309 | 12.21 |
| OP37572-MS | 324112 | 4.01 | 791786 | 5.06 | 463626 | 6.59 | 772032 | 7.96 | 578640 | 10.74 | 1374022 | 12.21 |
| OP37572-MSD | 302862 | 4.01 | 736896 | 5.06 | 431611 | 6.59 | 711900 | 7.96 | 536251 | 10.74 | 1274288 | 12.21 |
| MC29655-8 | 303674 | 4.01 | 734132 | 5.05 | 433775 | 6.58 | 740229 | 7.95 | 544578 | 10.73 | 1313763 | 12.21 |
| ZZZZZZ | 288676 | 4.01 | 700105 | 5.05 | 418815 | 6.58 | 697419 | 7.95 | 531679 | 10.73 | 1281182 | 12.21 |
| ZZZZZZ | 294835 | 4.01 | 717415 | 5.05 | 419366 | 6.58 | 714615 | 7.95 | 520532 | 10.73 | 1269528 | 12.21 |
| ZZZZZZ | 308799 | 4.01 | 748955 | 5.05 | 439741 | 6.58 | 741967 | 7.95 | 542531 | 10.73 | 1340419 | 12.21 |
| ZZZZZZ | 313592 | 4.01 | 750259 | 5.05 | 439861 | 6.58 | 740368 | 7.96 | 550369 | 10.74 | 1280554 | 12.22 |
| ZZZZZZ | 306787 | 4.01 | 717908 | 5.05 | 430123 | 6.59 | 717171 | 7.96 | 542663 | 10.75 | 1247764 | 12.23 |
| OP37592-MB | 253094 | 4.01 | 602458 | 5.05 | 371179 | 6.58 | 631776 | 7.95 | 458945 | 10.73 | 1097505 | 12.21 |
| OP37592-BS | 263228 | 4.01 | 630638 | 5.05 | 379151 | 6.58 | 633550 | 7.96 | 478241 | 10.74 | 1131010 | 12.21 |
| OP37592-MS | 255549 | 4.01 | 618800 | 5.06 | 370534 | 6.58 | 618859 | 7.96 | 463165 | 10.74 | 1100783 | 12.21 |
| OP37592-MSD | 243867 | 4.01 | 600478 | 5.05 | 357815 | 6.59 | 596542 | 7.96 | 443409 | 10.74 | 1040269 | 12.21 |
| MC29713-2 | 228892 | 4.01 | 563094 | 5.05 | 334970 | 6.58 | 556519 | 7.95 | 415843 | 10.73 | 1005946 | 12.20 |
| MC29713-1 | 249476 | 4.01 | 573832 | 5.05 | 352542 | 6.58 | 595657 | 7.95 | 434377 | 10.73 | 1037550 | 12.21 |
| MC29713-3 | 261552 | 4.01 | 626699 | 5.05 | 371703 | 6.58 | 627018 | 7.96 | 454700 | 10.73 | 1076886 | 12.21 |
| ZZZZZZ | 230838 | 4.01 | 537634 | 5.05 | 329982 | 6.58 | 559317 | 7.95 | 409290 | 10.73 | 968130 | 12.20 |
| ZZZZZZ | 247420 | 4.01 | 605197 | 5.05 | 360628 | 6.58 | 600230 | 7.95 | 438983 | 10.73 | 1041824 | 12.20 |

**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:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 |
|---|---|---|---|---|---|---|---|
| MC29713-1 | F72258.D | 48 | 32 | 83 | 74 | 76 | 87 |
| MC29713-2 | F72262.D | 51 | 34 | 86 | 78 | 78 | 93 |
| MC29713-3 | F72286.D | 49 | 32 | 86 | 79 | 73 | 88 |
| OP37591-BS | F72255.D | 46 | 30 | 80 | 74 | 79 | 91 |
| OP37591-MB | F72254.D | 49 | 32 | 80 | 78 | 78 | 90 |
| OP37591-MS | F72256.D | 50 | 34 | 90 | 84 | 78 | 92 |
| OP37591-MSD | F72257.D | 48 | 32 | 82 | 81 | 76 | 89 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = 2-Fluorophenol | 15-110% |
| S2 = Phenol-d5 | 15-110% |
| S3 = 2,4,6-Tribromophenol | 15-110% |
| S4 = Nitrobenzene-d5 | 30-130% |
| S5 = 2-Fluorobiphenyl | 30-130% |
| S6 = Terphenyl-d14 | 30-130% |

# Semivolatile Surrogate Recovery Summary



**Job Number:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 |
|---|---|---|---|---|
| MC29713-1 | I88570.D | 72 | 66 | 92 |
| MC29713-2 | I88569.D | 73 | 69 | 99 |
| MC29713-3 | I88571.D | 71 | 68 | 92 |
| OP37592-BS | I88566.D | 69 | 67 | 90 |
| OP37592-MB | I88565.D | 70 | 68 | 97 |
| OP37592-MS | I88567.D | 72 | 71 | 95 |
| OP37592-MSD | I88568.D | 68 | 67 | 92 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = Nitrobenzene-d5 | 30-130% |
| S2 = 2-Fluorobiphenyl | 30-130% |
| S3 = Terphenyl-d14 | 30-130% |

## 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:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37606-MB | YZ89225.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |

**The QC reported here applies to the following samples:** **Method:** SW846 8011

MC29713-1, MC29713-2, MC29713-3, MC29713-5

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.015 | 0.0054 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.015 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 74% | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 59% | 36-173% |

# Blank Spike Summary



**Job Number:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37606-BS | YZ89226.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |

**The QC reported here applies to the following samples:** **Method:** SW846 8011

MC29713-1, MC29713-2, MC29713-3, MC29713-5

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 0.071 | 0.049 | 69 | 60-140 |
| 106-93-4 | 1,2-Dibromoethane | 0.071 | 0.046 | 65 | 60-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 52% | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 50% | 36-173% |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37606-MS | YZ89227.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |
| OP37606-MSD | YZ89228.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |
| MC29713-2 | YZ89229.D | 1 | 04/15/14 | SZ | 04/14/14 | OP37606 | GYZ7541 |

**The QC reported here applies to the following samples:** **Method:** SW846 8011

MC29713-1, MC29713-2, MC29713-3, MC29713-5

| CAS No. | Compound | MC29713-2 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 | | 0.0685 | 0.061 | 89 | 0.0675 | 0.063 | 93 | 3 | 64-141/29 |
| 106-93-4 | 1,2-Dibromoethane | ND | | 0.0685 | 0.045 | 66 | 0.0675 | 0.054 | 80 | 18 | 63-163/27 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29713-2 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 67% | 88% | 62% | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 63% | 73% | 54% | 36-173% |

* = Outside of Control Limits.

# Volatile Surrogate Recovery Summary



**Job Number:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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] |
|---|---|---|---|
| MC29713-1 | YZ89230.D | 94 | 85 |
| MC29713-2 | YZ89229.D | 62 | 54 |
| MC29713-3 | YZ89231.D | 127 | 77 |
| MC29713-5 | YZ89232.D | 81 | 64 |
| OP37606-BS | YZ89226.D | 52 | 50 |
| OP37606-MB | YZ89225.D | 74 | 59 |
| OP37606-MS | YZ89227.D | 67 | 63 |
| OP37606-MSD | YZ89228.D | 88 | 73 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = Bromofluorobenzene (S) | 36-173% |

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

8.4.1

8

# GC Surrogate Retention Time Summary



**Job Number:** MC29713
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | GYZ7541-ICC7541 | **Injection Date:** | 04/15/14 |
| **Lab File ID:** | YZ89221.D | **Injection Time:** | 10:38 |
| **Instrument ID:** | GCYZ | **Method:** | SW846 8011 |

| | S1 [a] RT | S1 [b] RT |
|---|---|---|
| Check Std | 4.08 | 4.76 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 [a] RT | S1 [b] RT |
|---|---|---|---|---|---|
| OP37606-MB | YZ89225.D | 04/15/14 | 13:15 | 4.08 | 4.76 |
| OP37606-BS | YZ89226.D | 04/15/14 | 13:42 | 4.08 | 4.76 |
| OP37606-MS | YZ89227.D | 04/15/14 | 14:10 | 4.08 | 4.76 |
| OP37606-MSD | YZ89228.D | 04/15/14 | 14:38 | 4.08 | 4.76 |
| MC29713-2 | YZ89229.D | 04/15/14 | 15:05 | 4.08 | 4.76 |
| MC29713-1 | YZ89230.D | 04/15/14 | 15:33 | 4.08 | 4.76 |
| MC29713-3 | YZ89231.D | 04/15/14 | 16:00 | 4.08 | 4.76 |
| MC29713-5 | YZ89232.D | 04/15/14 | 16:28 | 4.08 | 4.76 |
| ZZZZZZ | YZ89233.D | 04/15/14 | 16:56 | 4.08 | 4.76 |
| ZZZZZZ | YZ89234.D | 04/15/14 | 17:25 | 4.08 | 4.76 |

**Surrogate Compounds**

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

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*Automated Report*

# Technical Report for

## Shell Oil

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana,

SGS Accutest Job Number: MC29805

Sampling Date: 04/15/14



Report to:

AECOM, INC.

Melissa.mansker@aecom.com

ATTN: Melissa Mansker

Total number of pages in report: 113

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.

H. (Brad) Madadian
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO (MA00136) MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.



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SGS ACCUTEST

November 2, 2016

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

RE: SGS Accutest Job # MC29805

Dear Elizabeth Kunkel

As you are aware, SGS Accutest Inc. - Marlboroug has been conducting an extensive review of data associated with some historical Gas Chromatography-Mass Spectroscopy volatiles analyses. As a result of this review it was determined that some revisions of the original test report for this job were needed. These corrections have been incorporated into the revised report.

Please be assured that corrective actions have been put in place to address this matter and prevent a recurrence.

We apologize for any inconvenience that this issue may have caused. Please don't hesitate to contact us if we can be of further assistance.

Sincerely

**H. (Brad) Madadian**

Regional Laboratory Director
SGS Accutest Inc. - Marlborough

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# Sample Summary

Shell Oil

Job No: MC29805

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample Number | Collected Date | Time | By | Received | Matrix Code | Type | Client Sample ID |
|---|---|---|---|---|---|---|---|
| MC29805-1 | 04/15/14 | 09:40 | DMMM | 04/16/14 | AQ | Ground Water | T12-ROX-041514 |
| MC29805-2 | 04/15/14 | 10:00 | DMMM | 04/16/14 | AQ | Equipment Blank | P74-ROX-041514-EB |
| MC29805-3 | 04/15/14 | 10:55 | DMMM | 04/16/14 | AQ | Ground Water | P74-ROX-041514 |
| MC29805-4 | 04/15/14 | 13:00 | DMMM | 04/16/14 | AQ | Ground Water | P59-ROX-041514 |
| MC29805-5 | 04/15/14 | 13:55 | DMMM | 04/16/14 | AQ | Ground Water | P57-ROX-041514 |
| MC29805-6 | 04/15/14 | 14:40 | DMMM | 04/16/14 | AQ | Ground Water | P58-ROX-041514 |
| MC29805-7 | 04/15/14 | 00:00 | DMMM | 04/16/14 | AQ | Trip Blank Water | TB-ROX-041514-HCL |
| MC29805-8 | 04/15/14 | 00:00 | DMMM | 04/16/14 | AQ | Trip Blank Water | TB-ROX-041514-ST |

# SAMPLE DELIVERY GROUP CASE NARRATIVE



**Client:** She O **Job No** MC29805

**Site:** URSMOSTL:Roxana 2Q 4 GW/ 2 562973 03002 900 South Centra **Report Date** /2/20 6 3:39:22 PM

6 Samp e(s), 2 Tr p B ank(s) were co ected on 04/ 5/20 4 and were rece ved at SGS Accutest New Eng and on 04/ 6/20 4 proper y preserved, at 0 6 Deg C and ntact These Samp es rece ved a job number of MC29805 A st ng of the Laboratory Samp e ID, C ent Samp e ID and dates of co ect on are presented n the Resu ts Summary Sect on of th s report -Ch orohexane, Benzeneth o , D benz(a,h)acr d ne, Indene, and Qu no ne were searched n the bra y search and reported on y f detect ons were found

Except as noted be ow, a method spec f ed ca brat ons and qua ty contro performance cr ter a were met for th s job For more nformat on, p ease refer to QC summary pages

## Volatiles by GCMS By Method SW846 8260C

**Matrix:** AQ **Batch ID:** MSV 33

- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29804- MS, MC29804- MSD were used as the QC samp es nd cated
- A method b anks for th s batch meet method spec f c cr ter a
- B ank Sp ke Recovery(s) for 2-Hexanone, Acetone are outs de contro m ts
- Matr x Sp ke Recovery(s) for ,2,3-Tr ch orobenzene, ,2,4-Tr ch orobenzene, 2-Ch oroethy v ny ether, D ch orod f uoromethane are outs de contro m ts Outs de contro m ts due to poss b e matr x nterference
- Matr x Sp ke Dup cate Recove y(s) for 2,2-D ch oropropane, 2-Ch oroethy v ny ether are outs de contro m ts Outs de contro m ts due to poss b e matr x nterference
- RPD(s) for MSD for ,2,3-Tr ch orobenzene are outs de contro m ts for samp e MC29804- MSD H gh RPD due to poss b e matr x nterference and/or samp e non-homogene ty
- Bromoform, 2-Ch oroethy v ny ether, D ch orod f uoromethane: Cont nu ng Ca brat on Ver f cat on outs de of acceptance cr ter a Samp e resu t may be b ased ow
- 2-Butanone (MEK): Cont nu ng Ca brat on Ver f cat on outs de of acceptance cr ter a Samp e resu t may be b ased h gh or non-detect for th s compound

**Matrix:** AQ **Batch ID:** MSV 34

- A samp es were ana yzed w th n the recommended method ho d ng t me
- A method b anks for th s batch meet method spec f c cr ter a
- Samp e(s) MC29804-4MS, MC29804-4MSD were used as the QC samp es nd cated
- MC29805-6 has nterna standards outs de contro m ts due to poss b e matr x nterference Conf rmed by reana ys s
- Samp e(s) MC29805-5, MC29805-6 have compounds reported w th "E" qua f ers nd cat ng est mated va ue exceed ng ca brat on range Est mated va ue Concentrat on exceeds near ca brat on range
- B ank Sp ke Recovery(s) for Acetone are outs de contro m ts
- Matr x Sp ke Recovery(s) for ,2,3-Tr ch orobenzene, 2-Ch oroethy v ny ether are outs de contro m ts Outs de contro m ts due to poss b e matr x nterference
- Matr x Sp ke Dup cate Recove y(s) for , ,2,2-Tetrach oroethane, ,2,3-Tr ch oropropane, 2-Ch oroethy v ny ether are outs de contro m ts Outs de contro m ts due to poss b e matr x nterference
- RPD(s) for MSD for ,2,3-Tr ch orobenzene are outs de contro m ts for samp e MC29804-4MSD H gh RPD due to poss b e matr x nterference and/or samp e non-homogene ty
- MC29805-6 for D bromof uoromethane: Outs de contro m ts due to poss b e matr x nte ference Conf rmed by reana ys s
- MSV 34-BS for ,2,3-Tr ch oropropane: Outs de contro m ts Assoc ated samp es are non-detect for th s compound
- Acetone, Bromoform, 2-Butanone (MEK), 2-Ch oroethy v ny ether, D ch orod f uoromethane: Cont nu ng Ca brat on Ver f cat on outs de of acceptance cr ter a Samp e resu t may be b ased ow

**Matrix:** AQ **Batch ID:** MSV 36

- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC3002 - MS, MC3002 - MSD were used as the QC samp es nd cated

## Volatiles by GCMS By Method SW846 8260C

**Matrix:** AQ **Batch ID:** MSV 36

- A method b anks for th s batch meet method spec f c cr ter a

## Extractables by GCMS By Method SW846 8270D

**Matrix:** AQ **Batch ID:** OP37647

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29400- 4MS, MC29400- 4MSD were used as the QC samp es nd cated
- Samp e(s) MC29805- , MC29805-2, MC29805-3, MC29805-5, MC29805-6 have compound(s) reported w th a "B" qua f er, nd cat ng ana yte s found n the assoc ated method b ank
- B ank Sp ke Recovery(s) for 2,4-D methy pheno , 4-N tropheno , Hexach orocyc opentad ene, N-N troso-d -n-propy am ne, n-N trosod methy am ne, Pheno , Pyr d ne are outs de contro m ts
- Matr x Sp ke Recovery(s) for 2,4-D methy pheno , 4-N tropheno , n-N trosod methy am ne are outs de contro m ts
- RPD(s) for MSD for 2,4-D methy pheno are outs de contro m ts for samp e OP37647-MSD H gh RPD due to poss b e matr x nterference and/or samp e non-homogene ty

## Extractables by GCMS By Method SW846 8270D BY SIM

**Matrix:** AQ **Batch ID:** OP37648

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29400- 7MS, MC29400- 7MSD were used as the QC samp es nd cated
- Samp e(s) MC29805-2, MC29805-3 have compound(s) reported w th a "B" qua f er, nd cat ng ana yte s found n the assoc ated method b ank

## Volatiles by GC By Method SW846 8011

**Matrix:** AQ **Batch ID:** OP3767

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29400-22MS, MC29400-22MSD were used as the QC samp es nd cated
- A method b anks for th s batch meet method spec f c cr ter a
- Cont nu ng ca brat on check standard GBB3222-CC3222 for ,2-D bromo-3-ch oropropane exceed cr ter a (response b as h gh) Assoc ated samp es are non-detect for th s compound

SGS Accutest New Eng and cert f es that a ana ys s were performed w th n method spec f cat on It s further recommended that th s report to be used n ts ent rety The Laborato y D rector for SGS Accutest New Eng and or ass gnee as ver f ed by the s gnature on the cover page has author zed the re ease of th s repo t(MC29805)

# Summary of Hits



Job Number: MC29805
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
Collected: 04/15/14



| Lab Sample ID / Analyte | Client Sample ID | Result/ Qual | RL | MDL | Units | Method |
|---|---|---|---|---|---|---|
| MC29805-1 | T12-ROX-041514 | | | | | |
| Benzene | | 2070 | 25 | 16 | ug/l | SW846 8260C |
| 2-Butanone (MEK) [a] | | 17.0 | 5.0 | 2.3 | ug/l | SW846 8260C |
| n-Butylbenzene | | 6.2 | 5.0 | 1.1 | ug/l | SW846 8260C |
| sec-Butylbenzene | | 2.4 J | 5.0 | 0.42 | ug/l | SW846 8260C |
| Ethylbenzene | | 376 | 50 | 19 | ug/l | SW846 8260C |
| Isopropylbenzene | | 30.6 | 5.0 | 0.35 | ug/l | SW846 8260C |
| p-Isopropyltoluene | | 1.8 J | 5.0 | 0.37 | ug/l | SW846 8260C |
| Naphthalene | | 120 | 5.0 | 0.69 | ug/l | SW846 8260C |
| n-Propylbenzene | | 53.4 | 5.0 | 0.49 | ug/l | SW846 8260C |
| Toluene | | 406 | 50 | 17 | ug/l | SW846 8260C |
| 1,2,4-Trimethylbenzene | | 220 J | 250 | 16 | ug/l | SW846 8260C |
| 1,3,5-Trimethylbenzene | | 33.9 | 5.0 | 0.38 | ug/l | SW846 8260C |
| m,p-Xylene | | 841 | 50 | 47 | ug/l | SW846 8260C |
| o-Xylene | | 40.1 | 1.0 | 0.36 | ug/l | SW846 8260C |
| Xylene (total) | | 864 | 50 | 18 | ug/l | SW846 8260C |
| Phenol | | 67.2 | 5.6 | 0.34 | ug/l | SW846 8270D |
| Dibenzofuran | | 0.31 J | 2.2 | 0.29 | ug/l | SW846 8270D |
| Di-n-butyl phthalate | | 0.34 JB | 5.6 | 0.19 | ug/l | SW846 8270D |
| Acenaphthene | | 0.37 | 0.11 | 0.077 | ug/l | SW846 8270D BY SIM |
| Anthracene | | 0.12 | 0.11 | 0.10 | ug/l | SW846 8270D BY SIM |
| Fluorene | | 0.30 | 0.11 | 0.11 | ug/l | SW846 8270D BY SIM |
| 1-Methylnaphthalene | | 18.9 | 0.22 | 0.055 | ug/l | SW846 8270D BY SIM |
| 2-Methylnaphthalene | | 28.3 | 0.22 | 0.082 | ug/l | SW846 8270D BY SIM |
| Phenanthrene | | 0.78 | 0.056 | 0.014 | ug/l | SW846 8270D BY SIM |
| Pyrene | | 0.050 J | 0.11 | 0.043 | ug/l | SW846 8270D BY SIM |
| MC29805-2 | P74-ROX-041514-EB | | | | | |
| Benzene | | 0.36 J | 0.50 | 0.32 | ug/l | SW846 8260C |
| 3&4-Methylphenol | | 6.1 J | 11 | 0.51 | ug/l | SW846 8270D |
| Phenol | | 24.3 | 5.4 | 0.33 | ug/l | SW846 8270D |
| Di-n-butyl phthalate | | 0.37 JB | 5.4 | 0.19 | ug/l | SW846 8270D |
| 1-Methylnaphthalene | | 0.70 | 0.22 | 0.054 | ug/l | SW846 8270D BY SIM |
| 2-Methylnaphthalene | | 1.3 | 0.22 | 0.081 | ug/l | SW846 8270D BY SIM |
| Phenanthrene | | 0.12 B | 0.054 | 0.014 | ug/l | SW846 8270D BY SIM |
| MC29805-3 | P74-ROX-041514 | | | | | |
| Acetone [b] | | 39.8 | 10 | 2.5 | ug/l | SW846 8260C |
| Benzene | | 34.9 | 0.50 | 0.32 | ug/l | SW846 8260C |
| n-Butylbenzene | | 1.3 J | 5.0 | 1.1 | ug/l | SW846 8260C |
| Ethylbenzene | | 4.3 | 1.0 | 0.38 | ug/l | SW846 8260C |
| Naphthalene | | 0.74 J | 5.0 | 0.69 | ug/l | SW846 8260C |

# Summary of Hits

**Job Number:** MC29805
**Account:** Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Collected:** 04/15/14



| Lab Sample ID / Analyte | Client Sample ID | Result/ Qual | RL | MDL | Units | Method |
|---|---|---|---|---|---|---|
| Toluene | | 0.78 J | 1.0 | 0.33 | ug/l | SW846 8260C |
| 1,2,4-Trimethylbenzene | | 8.3 | 5.0 | 0.32 | ug/l | SW846 8260C |
| 1,3,5-Trimethylbenzene | | 3.9 J | 5.0 | 0.38 | ug/l | SW846 8260C |
| m,p-Xylene | | 19.3 | 1.0 | 0.93 | ug/l | SW846 8260C |
| o-Xylene | | 1.5 | 1.0 | 0.36 | ug/l | SW846 8260C |
| Xylene (total) | | 20.8 | 1.0 | 0.36 | ug/l | SW846 8260C |
| Di-n-butyl phthalate | | 1.4 JB | 5.9 | 0.20 | ug/l | SW846 8270D |
| 1-Methylnaphthalene | | 1.7 | 0.24 | 0.059 | ug/l | SW846 8270D BY SIM |
| 2-Methylnaphthalene | | 2.2 | 0.24 | 0.087 | ug/l | SW846 8270D BY SIM |
| Phenanthrene | | 0.054 JB | 0.059 | 0.015 | ug/l | SW846 8270D BY SIM |
| **MC29805-4** | **P59-ROX-041514** | | | | | |
| Benzene | | 14800 | 25 | 16 | ug/l | SW846 8260C |
| 2-Butanone (MEK) [b] | | 25.3 | 5.0 | 2.3 | ug/l | SW846 8260C |
| n-Butylbenzene | | 18.1 | 5.0 | 1.1 | ug/l | SW846 8260C |
| sec-Butylbenzene | | 3.5 J | 5.0 | 0.42 | ug/l | SW846 8260C |
| tert-Butylbenzene | | 1.4 J | 5.0 | 0.39 | ug/l | SW846 8260C |
| 1,1-Dichloroethane | | 2.3 | 1.0 | 0.36 | ug/l | SW846 8260C |
| Ethylbenzene | | 1690 | 50 | 19 | ug/l | SW846 8260C |
| 2-Hexanone | | 54.0 | 5.0 | 1.6 | ug/l | SW846 8260C |
| Isopropylbenzene | | 49.5 | 5.0 | 0.35 | ug/l | SW846 8260C |
| p-Isopropyltoluene | | 2.9 J | 5.0 | 0.37 | ug/l | SW846 8260C |
| Naphthalene | | 196 | 5.0 | 0.69 | ug/l | SW846 8260C |
| n-Propylbenzene | | 79.8 | 5.0 | 0.49 | ug/l | SW846 8260C |
| Toluene | | 746 | 50 | 17 | ug/l | SW846 8260C |
| 1,2,3-Trichlorobenzene | | 2.7 J | 5.0 | 0.68 | ug/l | SW846 8260C |
| 1,2,4-Trimethylbenzene | | 385 | 250 | 16 | ug/l | SW846 8260C |
| 1,3,5-Trimethylbenzene | | 214 | 5.0 | 0.38 | ug/l | SW846 8260C |
| m,p-Xylene | | 4830 | 50 | 47 | ug/l | SW846 8260C |
| o-Xylene | | 902 | 50 | 18 | ug/l | SW846 8260C |
| Xylene (total) | | 5730 | 50 | 18 | ug/l | SW846 8260C |
| 3&4-Methylphenol | | 18.6 | 11 | 0.49 | ug/l | SW846 8270D |
| Phenol | | 130 | 5.3 | 0.32 | ug/l | SW846 8270D |
| Acenaphthene | | 1.3 | 0.11 | 0.073 | ug/l | SW846 8270D BY SIM |
| Anthracene | | 0.18 | 0.11 | 0.097 | ug/l | SW846 8270D BY SIM |
| Benzo(a)anthracene | | 0.060 | 0.053 | 0.021 | ug/l | SW846 8270D BY SIM |
| Benzo(a)pyrene | | 0.042 J | 0.11 | 0.030 | ug/l | SW846 8270D BY SIM |
| Benzo(b)fluoranthene | | 0.044 J | 0.053 | 0.033 | ug/l | SW846 8270D BY SIM |
| Benzo(g,h,i)perylene | | 0.035 J | 0.11 | 0.028 | ug/l | SW846 8270D BY SIM |
| Chrysene | | 0.10 J | 0.11 | 0.025 | ug/l | SW846 8270D BY SIM |
| Fluoranthene | | 0.15 | 0.11 | 0.043 | ug/l | SW846 8270D BY SIM |
| Fluorene | | 0.66 | 0.11 | 0.10 | ug/l | SW846 8270D BY SIM |
| 1-Methylnaphthalene | | 23.3 | 0.21 | 0.053 | ug/l | SW846 8270D BY SIM |
| 2-Methylnaphthalene | | 31.7 | 0.21 | 0.078 | ug/l | SW846 8270D BY SIM |

# Summary of Hits

**Job Number:** MC29805
**Account:** Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Collected:** 04/15/14



| Lab Sample ID / Analyte | Client Sample ID | Result/ Qual | RL | MDL | Units | Method |
|---|---|---|---|---|---|---|
| Phenanthrene | | 1.6 | 0.053 | 0.013 | ug/l | SW846 8270D BY SIM |
| Pyrene | | 0.30 | 0.11 | 0.040 | ug/l | SW846 8270D BY SIM |
| **MC29805-5** | **P57-ROX-041514** | | | | | |
| Benzene | | 384000 | 500 | 320 | ug/l | SW846 8260C |
| 2-Butanone (MEK) [b] | | 5.5 | 5.0 | 2.3 | ug/l | SW846 8260C |
| n-Butylbenzene | | 15.1 | 5.0 | 1.1 | ug/l | SW846 8260C |
| sec-Butylbenzene | | 13.1 | 5.0 | 0.42 | ug/l | SW846 8260C |
| tert-Butylbenzene | | 14.7 | 5.0 | 0.39 | ug/l | SW846 8260C |
| Ethylbenzene | | 1080 | 1000 | 380 | ug/l | SW846 8260C |
| 2-Hexanone | | 6.2 | 5.0 | 1.6 | ug/l | SW846 8260C |
| Isopropylbenzene | | 49.2 | 5.0 | 0.35 | ug/l | SW846 8260C |
| p-Isopropyltoluene | | 11.4 | 5.0 | 0.37 | ug/l | SW846 8260C |
| Methyl Tert Butyl Ether | | 56.3 | 1.0 | 0.51 | ug/l | SW846 8260C |
| Naphthalene | | 272 | 5.0 | 0.69 | ug/l | SW846 8260C |
| n-Propylbenzene | | 58.5 | 5.0 | 0.49 | ug/l | SW846 8260C |
| Toluene | | 24.8 | 1.0 | 0.33 | ug/l | SW846 8260C |
| 1,2,3-Trichlorobenzene | | 1.5 J | 5.0 | 0.68 | ug/l | SW846 8260C |
| 1,2,4-Trimethylbenzene [c] | | 503 E | 5.0 | 0.32 | ug/l | SW846 8260C |
| 1,3,5-Trimethylbenzene | | 114 | 5.0 | 0.38 | ug/l | SW846 8260C |
| m,p-Xylene | | 296 | 1.0 | 0.93 | ug/l | SW846 8260C |
| o-Xylene | | 14.3 | 1.0 | 0.36 | ug/l | SW846 8260C |
| Xylene (total) | | 311 | 1.0 | 0.36 | ug/l | SW846 8260C |
| Phenol | | 106 | 5.6 | 0.34 | ug/l | SW846 8270D |
| Dibenzofuran | | 0.70 J | 2.2 | 0.29 | ug/l | SW846 8270D |
| Di-n-butyl phthalate | | 0.58 JB | 5.6 | 0.19 | ug/l | SW846 8270D |
| Acenaphthene | | 0.36 | 0.11 | 0.077 | ug/l | SW846 8270D BY SIM |
| Acenaphthylene | | 0.074 J | 0.11 | 0.055 | ug/l | SW846 8270D BY SIM |
| Fluorene | | 0.61 | 0.11 | 0.11 | ug/l | SW846 8270D BY SIM |
| 1-Methylnaphthalene | | 23.8 | 0.22 | 0.055 | ug/l | SW846 8270D BY SIM |
| 2-Methylnaphthalene | | 32.0 | 0.22 | 0.082 | ug/l | SW846 8270D BY SIM |
| Phenanthrene | | 0.45 | 0.056 | 0.014 | ug/l | SW846 8270D BY SIM |
| **MC29805-6** | **P58-ROX-041514** | | | | | |
| Benzene | | 782000 | 2500 | 1600 | ug/l | SW846 8260C |
| 2-Butanone (MEK) [b] | | 5.6 | 5.0 | 2.3 | ug/l | SW846 8260C |
| n-Butylbenzene | | 21.6 | 5.0 | 1.1 | ug/l | SW846 8260C |
| sec-Butylbenzene | | 18.5 | 5.0 | 0.42 | ug/l | SW846 8260C |
| tert-Butylbenzene | | 39.6 | 5.0 | 0.39 | ug/l | SW846 8260C |
| Chlorobenzene | | 1.3 | 1.0 | 0.43 | ug/l | SW846 8260C |
| Ethylbenzene | | 891 J | 1000 | 380 | ug/l | SW846 8260C |
| Isopropylbenzene | | 77.7 | 5.0 | 0.35 | ug/l | SW846 8260C |
| p-Isopropyltoluene | | 11.6 | 5.0 | 0.37 | ug/l | SW846 8260C |

# Summary of Hits

**Job Number:** MC29805
**Account:** Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Collected:** 04/15/14



| Lab Sample ID / Analyte | Client Sample ID / Result/ Qual | RL | MDL | Units | Method |
|---|---|---|---|---|---|
| Naphthalene | 277 | 5.0 | 0.69 | ug/l | SW846 8260C |
| n-Propylbenzene | 104 | 5.0 | 0.49 | ug/l | SW846 8260C |
| Toluene | 127 | 1.0 | 0.33 | ug/l | SW846 8260C |
| 1,2,4-Trimethylbenzene [c] | 530 E | 5.0 | 0.32 | ug/l | SW846 8260C |
| 1,3,5-Trimethylbenzene | 99.2 | 5.0 | 0.38 | ug/l | SW846 8260C |
| m,p-Xylene | 552 | 1.0 | 0.93 | ug/l | SW846 8260C |
| o-Xylene | 90.8 | 1.0 | 0.36 | ug/l | SW846 8260C |
| Xylene (total) | 643 | 1.0 | 0.36 | ug/l | SW846 8260C |
| 2-Chlorophenol | 4.3 J | 5.3 | 0.33 | ug/l | SW846 8270D |
| 4-Chloro-3-methyl phenol | 4.4 J | 11 | 0.87 | ug/l | SW846 8270D |
| 3&4-Methylphenol | 13.6 | 11 | 0.49 | ug/l | SW846 8270D |
| Phenol | 123 | 5.3 | 0.32 | ug/l | SW846 8270D |
| Aniline | 2.8 J | 11 | 0.67 | ug/l | SW846 8270D |
| Butyl benzyl phthalate | 0.91 J | 5.3 | 0.56 | ug/l | SW846 8270D |
| Benzyl Alcohol | 5.1 J | 11 | 2.4 | ug/l | SW846 8270D |
| bis(2-Chloroethyl)ether | 1.5 J | 5.3 | 0.37 | ug/l | SW846 8270D |
| Dibenzofuran | 2.3 | 2.1 | 0.27 | ug/l | SW846 8270D |
| Di-n-butyl phthalate | 1.3 JB | 5.3 | 0.18 | ug/l | SW846 8270D |
| Di-n-octyl phthalate | 0.72 J | 5.3 | 0.30 | ug/l | SW846 8270D |
| Diethyl phthalate | 0.77 J | 5.3 | 0.21 | ug/l | SW846 8270D |
| bis(2-Ethylhexyl)phthalate | 0.99 JB | 2.1 | 0.35 | ug/l | SW846 8270D |
| Hexachlorobenzene | 0.88 J | 5.3 | 0.30 | ug/l | SW846 8270D |
| n-Nitrosodimethylamine | 2.1 J | 5.3 | 1.1 | ug/l | SW846 8270D |
| Acenaphthene | 1.1 | 0.11 | 0.073 | ug/l | SW846 8270D BY SIM |
| Acenaphthylene | 0.72 | 0.11 | 0.052 | ug/l | SW846 8270D BY SIM |
| Anthracene | 0.71 | 0.11 | 0.097 | ug/l | SW846 8270D BY SIM |
| Benzo(a)anthracene | 0.82 | 0.053 | 0.021 | ug/l | SW846 8270D BY SIM |
| Benzo(a)pyrene | 0.63 | 0.11 | 0.030 | ug/l | SW846 8270D BY SIM |
| Benzo(b)fluoranthene | 0.72 | 0.053 | 0.033 | ug/l | SW846 8270D BY SIM |
| Benzo(g,h,i)perylene | 0.71 | 0.11 | 0.028 | ug/l | SW846 8270D BY SIM |
| Benzo(k)fluoranthene | 0.71 | 0.11 | 0.041 | ug/l | SW846 8270D BY SIM |
| Chrysene | 0.73 | 0.11 | 0.025 | ug/l | SW846 8270D BY SIM |
| Dibenzo(a,h)anthracene | 0.75 | 0.11 | 0.034 | ug/l | SW846 8270D BY SIM |
| Fluoranthene | 0.79 | 0.11 | 0.043 | ug/l | SW846 8270D BY SIM |
| Fluorene | 1.7 | 0.11 | 0.10 | ug/l | SW846 8270D BY SIM |
| Indeno(1,2,3-cd)pyrene | 0.72 | 0.11 | 0.032 | ug/l | SW846 8270D BY SIM |
| 1-Methylnaphthalene | 28.4 | 0.21 | 0.053 | ug/l | SW846 8270D BY SIM |
| 2-Methylnaphthalene | 38.1 | 0.21 | 0.078 | ug/l | SW846 8270D BY SIM |
| Phenanthrene | 1.3 | 0.053 | 0.013 | ug/l | SW846 8270D BY SIM |
| Pyrene | 0.85 | 0.11 | 0.040 | ug/l | SW846 8270D BY SIM |

**MC29805-7** **TB-ROX-041514-HCL**

No hits reported in this sample.

# Summary of Hits

**Job Number:** MC29805
**Account:** Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Collected:** 04/15/14



| Lab Sample ID / Analyte | Client Sample ID | Result/ Qual | RL | MDL | Units | Method |
|---|---|---|---|---|---|---|
| MC29805-8 | TB-ROX-041514-ST | | | | | |

No hits reported in this sample.

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased high.
(b) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.
(c) Estimated value. Concentration exceeds linear calibration range.

## Sample Results

### Report of Analysis

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | T12-ROX-041514 | | |
| **Lab Sample ID:** | MC29805-1 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V30329.D | 1 | 04/27/14 | AMY | n/a | n/a | MSV1133 |
| Run #2 | V30356.D | 50 | 04/28/14 | AMY | n/a | n/a | MSV1134 |

| | 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 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | 2070 [a] | 25 | 16 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform [b] | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) [c] | 17.0 | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | 6.2 | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | 2.4 | 5.0 | 0.42 | ug/l | J |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [b] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane [b] | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-041514 | | |
| **Lab Sample ID:** | MC29805-1 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | 376 [a] | 50 | 19 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | 30.6 | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | 1.8 | 5.0 | 0.37 | ug/l | J |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | 120 | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | 53.4 | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | 406 [a] | 50 | 17 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | 220 [a] | 250 | 16 | ug/l | J |
| 108-67-8 | 1,3,5-Trimethylbenzene | 33.9 | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | 841 [a] | 50 | 47 | ug/l | |
| 95-47-6 | o-Xylene | 40.1 | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | 864 [a] | 50 | 18 | 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-041514 | | |
| **Lab Sample ID:** | MC29805-1 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 77% | 89% | 70-130% |
| 2037-26-5 | Toluene-D8 | 86% | 88% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 94% | 89% | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Result is from Run# 2
(b) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.
(c) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates 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-041514 | | |
| **Lab Sample ID:** | MC29805-1 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38309.D | 1 | 04/21/14 | WK | 04/17/14 | OP37647 | MSR1412 |
| 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 | 0.34 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 11 | 0.92 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 11 | 0.44 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 11 | 0.62 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 22 | 2.8 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 11 | 2.1 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 11 | 0.25 | ug/l | |
| | 3&4-Methylphenol | ND | 11 | 0.52 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 11 | 3.2 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 22 | 0.59 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 11 | 1.2 | ug/l | |
| 108-95-2 | Phenol | 67.2 | 5.6 | 0.34 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 11 | 0.41 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 11 | 0.19 | ug/l | |
| 62-53-3 | Aniline | ND | 11 | 0.71 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.6 | 0.52 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.6 | 0.59 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 11 | 2.5 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.6 | 0.35 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 11 | 0.62 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.6 | 0.32 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.6 | 0.39 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.6 | 0.37 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.6 | 0.28 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.6 | 0.27 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 11 | 0.51 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 11 | 0.33 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.6 | 0.30 | ug/l | |
| 132-64-9 | Dibenzofuran | 0.31 | 2.2 | 0.29 | ug/l | J |
| 84-74-2 | Di-n-butyl phthalate | 0.34 | 5.6 | 0.19 | ug/l | JB |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.6 | 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:** | T12-ROX-041514 | | |
| **Lab Sample ID:** | MC29805-1 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.22 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.6 | 0.38 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.2 | 0.37 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.6 | 0.32 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 11 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.6 | 0.34 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.6 | 0.50 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 11 | 0.44 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 11 | 1.5 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 11 | 2.4 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.6 | 0.43 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.6 | 1.1 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.6 | 0.45 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.6 | 0.21 | ug/l | |
| 110-86-1 | Pyridine | ND | 11 | 0.57 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 48% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 29% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 93% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 69% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 75% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 92% | | 30-130% |

| 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-041514 | | |
| **Lab Sample ID:** | MC29805-1 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88668.D | 1 | 04/21/14 | MR | 04/17/14 | OP37648 | MSI3302 |
| 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 | 0.37 | 0.11 | 0.077 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.11 | 0.055 | ug/l | |
| 120-12-7 | Anthracene | 0.12 | 0.11 | 0.10 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.056 | 0.022 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.11 | 0.032 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.056 | 0.035 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.11 | 0.030 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.11 | 0.043 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.11 | 0.026 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.11 | 0.035 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.11 | 0.045 | ug/l | |
| 86-73-7 | Fluorene | 0.30 | 0.11 | 0.11 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.11 | 0.034 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | 18.9 | 0.22 | 0.055 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 28.3 | 0.22 | 0.082 | ug/l | |
| 85-01-8 | Phenanthrene | 0.78 | 0.056 | 0.014 | ug/l | |
| 129-00-0 | Pyrene | 0.050 | 0.11 | 0.043 | ug/l | J |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 68% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 68% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 91% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates 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-041514 | | |
| **Lab Sample ID:** | MC29805-1 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | BB55411.D | 1 | 04/21/14 | SZ | 04/18/14 | OP37671 | GBB3222 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 35.7 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.015 | 0.0053 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.015 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 70% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 82% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041514-EB | | |
| **Lab Sample ID:** | MC29805-2 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Equipment Blank | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V30314.D | 1 | 04/27/14 | AMY | n/a | n/a | MSV1133 |
| 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 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | 0.36 | 0.50 | 0.32 | ug/l | J |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform [a] | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [a] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane [a] | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-041514-EB | | |
| **Lab Sample ID:** | MC29805-2 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Equipment Blank | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-041514-EB | | |
| **Lab Sample ID:** | MC29805-2 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Equipment Blank | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 96% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 90% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 89% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041514-EB | | |
| **Lab Sample ID:** | MC29805-2 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Equipment Blank | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38310.D | 1 | 04/21/14 | WK | 04/17/14 | OP37647 | MSR1412 |
| 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 | 0.34 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 11 | 0.90 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 11 | 0.43 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 11 | 0.61 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 22 | 2.7 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 11 | 2.1 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 11 | 0.25 | ug/l | |
| | 3&4-Methylphenol | 6.1 | 11 | 0.51 | ug/l | J |
| 88-75-5 | 2-Nitrophenol | ND | 11 | 3.1 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 22 | 0.58 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 11 | 1.2 | ug/l | |
| 108-95-2 | Phenol | 24.3 | 5.4 | 0.33 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 11 | 0.40 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 11 | 0.19 | ug/l | |
| 62-53-3 | Aniline | ND | 11 | 0.69 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.4 | 0.51 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.4 | 0.58 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 11 | 2.5 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.4 | 0.34 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 11 | 0.61 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.4 | 0.31 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.4 | 0.38 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.4 | 0.36 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.4 | 0.27 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.4 | 0.26 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 11 | 0.50 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 11 | 0.33 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.4 | 0.29 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.2 | 0.28 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.37 | 5.4 | 0.19 | 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:** | P74-ROX-041514-EB | | |
| **Lab Sample ID:** | MC29805-2 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Equipment Blank | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.22 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.4 | 0.37 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.2 | 0.36 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.4 | 0.31 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 11 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.4 | 0.33 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.4 | 0.49 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 11 | 0.43 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 11 | 1.5 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 11 | 2.3 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.4 | 0.43 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.4 | 1.1 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.4 | 0.44 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.4 | 0.21 | ug/l | |
| 110-86-1 | Pyridine | ND | 11 | 0.56 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 39% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 27% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 93% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 64% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 76% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 73% | | 30-130% |

| 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-041514-EB | | |
| **Lab Sample ID:** | MC29805-2 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Equipment Blank | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88669.D | 1 | 04/21/14 | MR | 04/17/14 | OP37648 | MSI3302 |
| 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 | 0.075 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.11 | 0.054 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.11 | 0.10 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.054 | 0.021 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.11 | 0.031 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.054 | 0.034 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.11 | 0.029 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.11 | 0.042 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.11 | 0.026 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.11 | 0.035 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.11 | 0.044 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.11 | 0.11 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.11 | 0.033 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | 0.70 | 0.22 | 0.054 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 1.3 | 0.22 | 0.081 | ug/l | |
| 85-01-8 | Phenanthrene | 0.12 | 0.054 | 0.014 | ug/l | B |
| 129-00-0 | Pyrene | ND | 0.11 | 0.042 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 63% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 68% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 74% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
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J = Indicates 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-041514-EB | | |
| **Lab Sample ID:** | MC29805-2 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Equipment Blank | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | BB55412.D | 1 | 04/21/14 | SZ | 04/18/14 | OP37671 | GBB3222 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.5 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0052 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 77% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 82% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041514 | | |
| **Lab Sample ID:** | MC29805-3 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V30351.D | 1 | 04/28/14 | AMY | n/a | n/a | MSV1134 |
| 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 [a] | 39.8 | 10 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | 34.9 | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform [a] | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) [a] | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | 1.3 | 5.0 | 1.1 | ug/l | J |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [a] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane [a] | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-041514 | | |
| **Lab Sample ID:** | MC29805-3 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | 4.3 | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | 0.74 | 5.0 | 0.69 | ug/l | J |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | 0.78 | 1.0 | 0.33 | ug/l | J |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | 8.3 | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | 3.9 | 5.0 | 0.38 | ug/l | J |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | 19.3 | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | 1.5 | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | 20.8 | 1.0 | 0.36 | 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-041514 | | |
| **Lab Sample ID:** | MC29805-3 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 94% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 94% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 86% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041514 | | |
| **Lab Sample ID:** | MC29805-3 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38311.D | 1 | 04/21/14 | WK | 04/17/14 | OP37647 | MSR1412 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 850 ml | 1.0 ml |
| Run #2 | | |

**ABN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 12 | 2.9 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 5.9 | 0.36 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 12 | 0.97 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 12 | 0.47 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 12 | 0.66 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 2.9 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 12 | 2.3 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 12 | 0.27 | ug/l | |
| | 3&4-Methylphenol | ND | 12 | 0.55 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 12 | 3.4 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 0.63 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 12 | 1.3 | ug/l | |
| 108-95-2 | Phenol | ND | 5.9 | 0.36 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 12 | 0.44 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 12 | 0.21 | ug/l | |
| 62-53-3 | Aniline | ND | 12 | 0.75 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.9 | 0.55 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.9 | 0.62 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 12 | 2.7 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.9 | 0.37 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 12 | 0.66 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.9 | 0.34 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.9 | 0.41 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.9 | 0.39 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.9 | 0.30 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.9 | 0.28 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 12 | 0.54 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 12 | 0.35 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.9 | 0.31 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.4 | 0.30 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 1.4 | 5.9 | 0.20 | ug/l | JB |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.9 | 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:** | P74-ROX-041514 | | |
| **Lab Sample ID:** | MC29805-3 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**ABN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 84-66-2 | Diethyl phthalate | ND | 5.9 | 0.24 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.9 | 0.40 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.4 | 0.39 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.9 | 0.34 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 12 | 1.5 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.9 | 0.36 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.9 | 0.53 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 12 | 0.47 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 12 | 1.6 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 12 | 2.5 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.9 | 0.46 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.9 | 1.2 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.9 | 0.47 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.9 | 0.23 | ug/l | |
| 110-86-1 | Pyridine | ND | 12 | 0.61 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 47% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 29% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 88% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 68% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 70% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 68% | | 30-130% |

| 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-041514 | | |
| **Lab Sample ID:** | MC29805-3 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88670.D | 1 | 04/21/14 | MR | 04/17/14 | OP37648 | MSI3302 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 850 ml | 1.0 ml |
| Run #2 | | |

**BN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | ND | 0.12 | 0.081 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.12 | 0.058 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.12 | 0.11 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.059 | 0.023 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.12 | 0.034 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.059 | 0.037 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.12 | 0.032 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.12 | 0.045 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.12 | 0.028 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.12 | 0.038 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.12 | 0.048 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.12 | 0.12 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.12 | 0.036 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | 1.7 | 0.24 | 0.059 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 2.2 | 0.24 | 0.087 | ug/l | |
| 85-01-8 | Phenanthrene | 0.054 | 0.059 | 0.015 | ug/l | JB |
| 129-00-0 | Pyrene | ND | 0.12 | 0.045 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 68% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 62% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 68% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041514 | | |
| **Lab Sample ID:** | MC29805-3 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | BB55413.D | 1 | 04/21/14 | SZ | 04/18/14 | OP37671 | GBB3222 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.5 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0052 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 82% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 85% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041514 | | |
| **Lab Sample ID:** | MC29805-4 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V30357.D | 1 | 04/28/14 | AMY | n/a | n/a | MSV1134 |
| Run #2 | V30412.D | 50 | 04/29/14 | AMY | n/a | n/a | MSV1136 |

| | 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 [a] | ND | 10 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | 14800 [b] | 25 | 16 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform [a] | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) [a] | 25.3 | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | 18.1 | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | 3.5 | 5.0 | 0.42 | ug/l | J |
| 98-06-6 | tert-Butylbenzene | 1.4 | 5.0 | 0.39 | ug/l | J |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [a] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane [a] | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | 2.3 | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-041514 | | |
| **Lab Sample ID:** | MC29805-4 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | 1690 [b] | 50 | 19 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | 54.0 | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | 49.5 | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | 2.9 | 5.0 | 0.37 | ug/l | J |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | 196 | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | 79.8 | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | 746 [b] | 50 | 17 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | 2.7 | 5.0 | 0.68 | ug/l | J |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | 385 [b] | 250 | 16 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | 214 | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | 4830 [b] | 50 | 47 | ug/l | |
| 95-47-6 | o-Xylene | 902 [b] | 50 | 18 | ug/l | |
| 1330-20-7 | Xylene (total) | 5730 [b] | 50 | 18 | 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-041514 | | |
| **Lab Sample ID:** | MC29805-4 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 79% | 86% | 70-130% |
| 2037-26-5 | Toluene-D8 | 80% | 91% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 96% | 92% | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.
(b) 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-041514 | | |
| **Lab Sample ID:** | MC29805-4 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38312.D | 1 | 04/22/14 | WK | 04/17/14 | OP37647 | MSR1412 |
| 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 | 0.33 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 11 | 0.87 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 11 | 0.42 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 11 | 0.59 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 21 | 2.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 11 | 2.0 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 11 | 0.24 | ug/l | |
| | 3&4-Methylphenol | 18.6 | 11 | 0.49 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 11 | 3.0 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 21 | 0.56 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 11 | 1.2 | ug/l | |
| 108-95-2 | Phenol | 130 | 5.3 | 0.32 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 11 | 0.39 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 11 | 0.18 | ug/l | |
| 62-53-3 | Aniline | ND | 11 | 0.67 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.3 | 0.50 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.3 | 0.56 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 11 | 2.4 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.3 | 0.33 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 11 | 0.59 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.3 | 0.30 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.3 | 0.37 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.3 | 0.35 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.3 | 0.26 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.3 | 0.25 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 11 | 0.48 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 11 | 0.32 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.3 | 0.28 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.1 | 0.27 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 5.3 | 0.18 | 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:** | P59-ROX-041514 | | |
| **Lab Sample ID:** | MC29805-4 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.21 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.3 | 0.36 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.1 | 0.35 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.3 | 0.30 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 11 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.3 | 0.32 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.3 | 0.47 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 11 | 0.42 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 11 | 1.4 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 11 | 2.3 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.3 | 0.41 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.3 | 1.1 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.3 | 0.42 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.3 | 0.20 | ug/l | |
| 110-86-1 | Pyridine | ND | 11 | 0.54 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 49% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 28% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 100% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 87% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 60% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 104% | | 30-130% |

| 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:** | P59-ROX-041514 | | |
| **Lab Sample ID:** | MC29805-4 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88671.D | 1 | 04/21/14 | MR | 04/17/14 | OP37648 | MSI3302 |
| 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 | 1.3 | 0.11 | 0.073 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.11 | 0.052 | ug/l | |
| 120-12-7 | Anthracene | 0.18 | 0.11 | 0.097 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | 0.060 | 0.053 | 0.021 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | 0.042 | 0.11 | 0.030 | ug/l | J |
| 205-99-2 | Benzo(b)fluoranthene | 0.044 | 0.053 | 0.033 | ug/l | J |
| 191-24-2 | Benzo(g,h,i)perylene | 0.035 | 0.11 | 0.028 | ug/l | J |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.11 | 0.041 | ug/l | |
| 218-01-9 | Chrysene | 0.10 | 0.11 | 0.025 | ug/l | J |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.11 | 0.034 | ug/l | |
| 206-44-0 | Fluoranthene | 0.15 | 0.11 | 0.043 | ug/l | |
| 86-73-7 | Fluorene | 0.66 | 0.11 | 0.10 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.11 | 0.032 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | 23.3 | 0.21 | 0.053 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 31.7 | 0.21 | 0.078 | ug/l | |
| 85-01-8 | Phenanthrene | 1.6 | 0.053 | 0.013 | ug/l | |
| 129-00-0 | Pyrene | 0.30 | 0.11 | 0.040 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 87% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 50% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 110% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041514 | | |
| **Lab Sample ID:** | MC29805-4 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | BB55414.D | 1 | 04/21/14 | SZ | 04/18/14 | OP37671 | GBB3222 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 35.8 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.015 | 0.0053 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.015 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 89% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 99% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041514 | | |
| **Lab Sample ID:** | MC29805-5 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V30358.D | 1 | 04/28/14 | AMY | n/a | n/a | MSV1134 |
| Run #2 | V30410.D | 1000 | 04/29/14 | AMY | n/a | n/a | MSV1136 |

| | 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 [a] | ND | 10 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | 384000 [b] | 500 | 320 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform [a] | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) [a] | 5.5 | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | 15.1 | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | 13.1 | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | 14.7 | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [a] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane [a] | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-041514 | | |
| **Lab Sample ID:** | MC29805-5 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | 1080 [b] | 1000 | 380 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | 6.2 | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | 49.2 | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | 11.4 | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | 56.3 | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | 272 | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | 58.5 | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | 24.8 | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | 1.5 | 5.0 | 0.68 | ug/l | J |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene [c] | 503 | 5.0 | 0.32 | ug/l | E |
| 108-67-8 | 1,3,5-Trimethylbenzene | 114 | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | 296 | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | 14.3 | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | 311 | 1.0 | 0.36 | 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-041514 | | |
| **Lab Sample ID:** | MC29805-5 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 72% | 94% | 70-130% |
| 2037-26-5 | Toluene-D8 | 75% | 89% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 93% | 89% | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.
(b) Result is from Run# 2
(c) Estimated value. Concentration exceeds linear calibration range.

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | P57-ROX-041514 | | |
| **Lab Sample ID:** | MC29805-5 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38313.D | 1 | 04/22/14 | WK | 04/17/14 | OP37647 | MSR1412 |
| 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 | 0.34 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 11 | 0.92 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 11 | 0.44 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 11 | 0.62 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 22 | 2.8 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 11 | 2.1 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 11 | 0.25 | ug/l | |
| | 3&4-Methylphenol | ND | 11 | 0.52 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 11 | 3.2 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 22 | 0.59 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 11 | 1.2 | ug/l | |
| 108-95-2 | Phenol | 106 | 5.6 | 0.34 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 11 | 0.41 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 11 | 0.19 | ug/l | |
| 62-53-3 | Aniline | ND | 11 | 0.71 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.6 | 0.52 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.6 | 0.59 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 11 | 2.5 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.6 | 0.35 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 11 | 0.62 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.6 | 0.32 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.6 | 0.39 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.6 | 0.37 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.6 | 0.28 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.6 | 0.27 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 11 | 0.51 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 11 | 0.33 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.6 | 0.30 | ug/l | |
| 132-64-9 | Dibenzofuran | 0.70 | 2.2 | 0.29 | ug/l | J |
| 84-74-2 | Di-n-butyl phthalate | 0.58 | 5.6 | 0.19 | ug/l | JB |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.6 | 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:** | P57-ROX-041514 | | |
| **Lab Sample ID:** | MC29805-5 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.22 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.6 | 0.38 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.2 | 0.37 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.6 | 0.32 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 11 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.6 | 0.34 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.6 | 0.50 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 11 | 0.44 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 11 | 1.5 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 11 | 2.4 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.6 | 0.43 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.6 | 1.1 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.6 | 0.45 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.6 | 0.21 | ug/l | |
| 110-86-1 | Pyridine | ND | 11 | 0.57 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 39% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 26% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 89% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 64% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 76% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 87% | | 30-130% |

| 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-041514 | | |
| **Lab Sample ID:** | MC29805-5 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88672.D | 1 | 04/21/14 | MR | 04/17/14 | OP37648 | MSI3302 |
| 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 | 0.077 | ug/l | |
| 208-96-8 | Acenaphthylene | 0.074 | 0.11 | 0.055 | ug/l | J |
| 120-12-7 | Anthracene | ND | 0.11 | 0.10 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.056 | 0.022 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.11 | 0.032 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.056 | 0.035 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.11 | 0.030 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.11 | 0.043 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.11 | 0.026 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.11 | 0.035 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.11 | 0.045 | ug/l | |
| 86-73-7 | Fluorene | 0.61 | 0.11 | 0.11 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.11 | 0.034 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | 23.8 | 0.22 | 0.055 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 32.0 | 0.22 | 0.082 | ug/l | |
| 85-01-8 | Phenanthrene | 0.45 | 0.056 | 0.014 | ug/l | |
| 129-00-0 | Pyrene | ND | 0.11 | 0.043 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 66% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 67% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 85% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041514 | | |
| **Lab Sample ID:** | MC29805-5 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | BB55415.D | 1 | 04/21/14 | SZ | 04/18/14 | OP37671 | GBB3222 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.2 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.015 | 0.0052 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.015 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 62% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 83% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041514 | | |
| **Lab Sample ID:** | MC29805-6 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V30359.D | 1 | 04/28/14 | AMY | n/a | n/a | MSV1134 |
| Run #2 | V30411.D | 1000 | 04/29/14 | AMY | n/a | n/a | MSV1136 |
| Run #3 | V30413.D | 5000 | 04/29/14 | AMY | n/a | n/a | MSV1136 |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | 5.0 ml |
| Run #3 | 5.0 ml |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone [a] | ND | 10 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | 782000 [b] | 2500 | 1600 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform [a] | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) [a] | 5.6 | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | 21.6 | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | 18.5 | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | 39.6 | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | 1.3 | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [a] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane [a] | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | 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-041514 | | |
| **Lab Sample ID:** | MC29805-6 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 2.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | 891 [c] | 1000 | 380 | ug/l | J |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | 77.7 | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | 11.6 | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | 277 | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | 104 | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | 127 | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene [d] | 530 | 5.0 | 0.32 | ug/l | E |
| 108-67-8 | 1,3,5-Trimethylbenzene | 99.2 | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | 552 | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | 90.8 | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | 643 | 1.0 | 0.36 | 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-041514 | | |
| **Lab Sample ID:** | MC29805-6 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Run# 3 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 66% [e] | 96% | 100% | 70-130% |
| 2037-26-5 | Toluene-D8 | 78% | 87% | 89% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 90% | 92% | 90% | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.
(b) Result is from Run# 3
(c) Result is from Run# 2
(d) Estimated value. Concentration exceeds linear calibration range.
(e) 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:** | P58-ROX-041514 | | |
| **Lab Sample ID:** | MC29805-6 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38314.D | 1 | 04/22/14 | WK | 04/17/14 | OP37647 | MSR1412 |
| 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 | 4.3 | 5.3 | 0.33 | ug/l | J |
| 59-50-7 | 4-Chloro-3-methyl phenol | 4.4 | 11 | 0.87 | ug/l | J |
| 120-83-2 | 2,4-Dichlorophenol | ND | 11 | 0.42 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 11 | 0.59 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 21 | 2.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 11 | 2.0 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 11 | 0.24 | ug/l | |
| | 3&4-Methylphenol | 13.6 | 11 | 0.49 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 11 | 3.0 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 21 | 0.56 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 11 | 1.2 | ug/l | |
| 108-95-2 | Phenol | 123 | 5.3 | 0.32 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 11 | 0.39 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 11 | 0.18 | ug/l | |
| 62-53-3 | Aniline | 2.8 | 11 | 0.67 | ug/l | J |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.3 | 0.50 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | 0.91 | 5.3 | 0.56 | ug/l | J |
| 100-51-6 | Benzyl Alcohol | 5.1 | 11 | 2.4 | ug/l | J |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.3 | 0.33 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 11 | 0.59 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.3 | 0.30 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | 1.5 | 5.3 | 0.37 | ug/l | J |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.3 | 0.35 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.3 | 0.26 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.3 | 0.25 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 11 | 0.48 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 11 | 0.32 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.3 | 0.28 | ug/l | |
| 132-64-9 | Dibenzofuran | 2.3 | 2.1 | 0.27 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 1.3 | 5.3 | 0.18 | ug/l | JB |
| 117-84-0 | Di-n-octyl phthalate | 0.72 | 5.3 | 0.30 | 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:** | P58-ROX-041514 | | |
| **Lab Sample ID:** | MC29805-6 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**ABN Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 84-66-2 | Diethyl phthalate | 0.77 | 5.3 | 0.21 | ug/l | J |
| 131-11-3 | Dimethyl phthalate | ND | 5.3 | 0.36 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 0.99 | 2.1 | 0.35 | ug/l | JB |
| 118-74-1 | Hexachlorobenzene | 0.88 | 5.3 | 0.30 | ug/l | J |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 11 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.3 | 0.32 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.3 | 0.47 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 11 | 0.42 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 11 | 1.4 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 11 | 2.3 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.3 | 0.41 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | 2.1 | 5.3 | 1.1 | ug/l | J |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.3 | 0.42 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.3 | 0.20 | ug/l | |
| 110-86-1 | Pyridine | ND | 11 | 0.54 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 33% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 20% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 61% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 47% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 47% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 63% | | 30-130% |

| 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-041514 | | |
| **Lab Sample ID:** | MC29805-6 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88673.D | 1 | 04/21/14 | MR | 04/17/14 | OP37648 | MSI3302 |
| 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 | 1.1 | 0.11 | 0.073 | ug/l | |
| 208-96-8 | Acenaphthylene | 0.72 | 0.11 | 0.052 | ug/l | |
| 120-12-7 | Anthracene | 0.71 | 0.11 | 0.097 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | 0.82 | 0.053 | 0.021 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | 0.63 | 0.11 | 0.030 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | 0.72 | 0.053 | 0.033 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | 0.71 | 0.11 | 0.028 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | 0.71 | 0.11 | 0.041 | ug/l | |
| 218-01-9 | Chrysene | 0.73 | 0.11 | 0.025 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | 0.75 | 0.11 | 0.034 | ug/l | |
| 206-44-0 | Fluoranthene | 0.79 | 0.11 | 0.043 | ug/l | |
| 86-73-7 | Fluorene | 1.7 | 0.11 | 0.10 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 0.72 | 0.11 | 0.032 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | 28.4 | 0.21 | 0.053 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 38.1 | 0.21 | 0.078 | ug/l | |
| 85-01-8 | Phenanthrene | 1.3 | 0.053 | 0.013 | ug/l | |
| 129-00-0 | Pyrene | 0.85 | 0.11 | 0.040 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 45% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 43% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 63% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041514 | | |
| **Lab Sample ID:** | MC29805-6 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | BB55417.D | 1 | 04/21/14 | SZ | 04/18/14 | OP37671 | GBB3222 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.5 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0052 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 63% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 66% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041514-HCL | | |
| **Lab Sample ID:** | MC29805-7 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V30312.D | 1 | 04/27/14 | AMY | n/a | n/a | MSV1133 |
| 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 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform [a] | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [a] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane [a] | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-041514-HCL | | |
| **Lab Sample ID:** | MC29805-7 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-041514-HCL | | |
| **Lab Sample ID:** | MC29805-7 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 96% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 90% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 89% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041514-ST | | |
| **Lab Sample ID:** | MC29805-8 | **Date Sampled:** | 04/15/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/16/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | BB55418.D | 1 | 04/21/14 | SZ | 04/18/14 | OP37671 | GBB3222 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 37.0 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0051 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 83% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 88% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

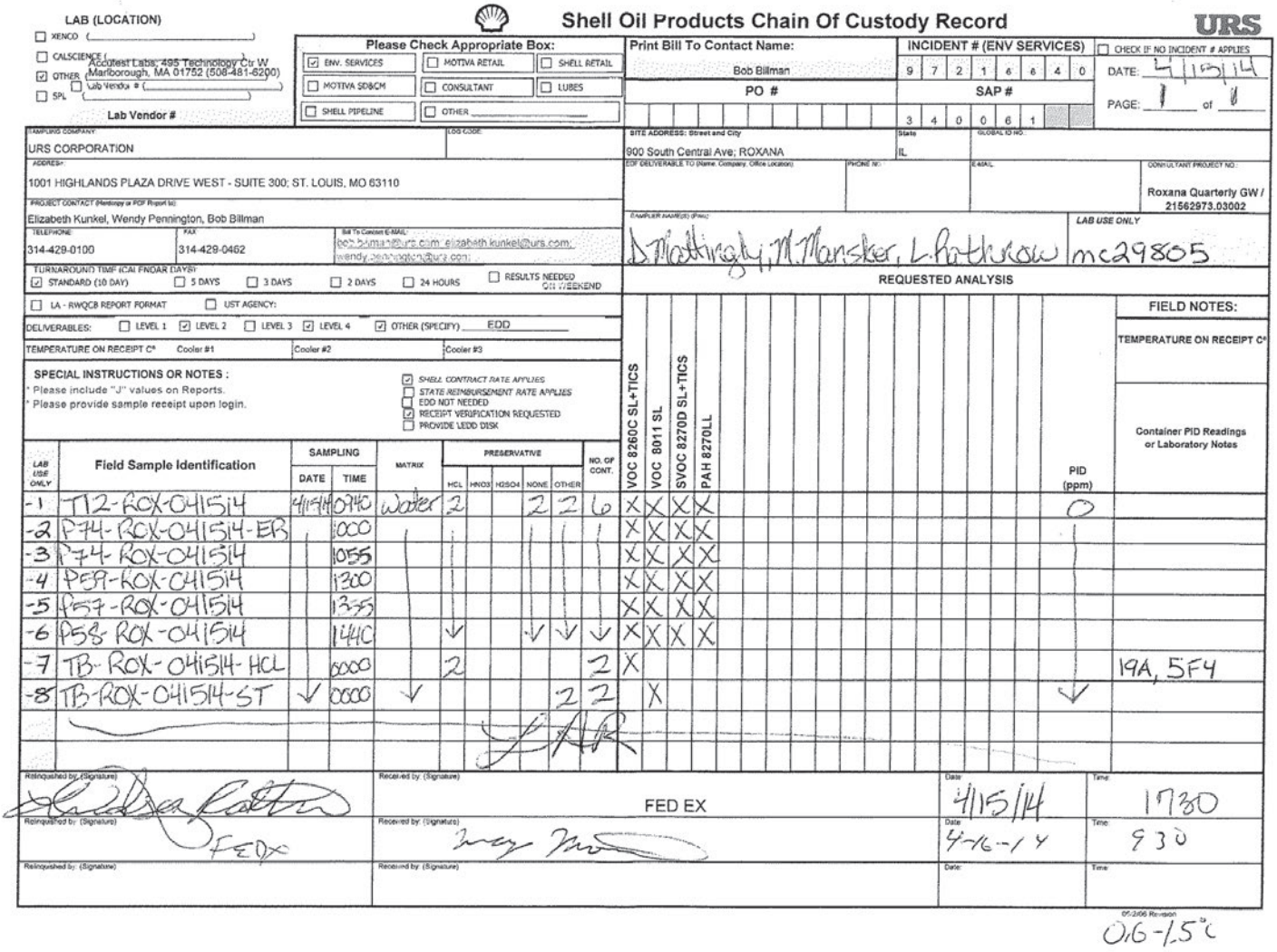
## Misc. Forms



# 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

LAB (LOCATION)
☐ XENCO (_____)
☐ CALSCIENCE (_____)
☑ OTHER (Accutest Labs; 495 Technology Ctr W Marlborough, MA 01752 (508-481-6200))
☐ SPL (Lab Vendor # (_____))
Lab Vendor #

Please Check Appropriate Box:
☑ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SD&CM ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER _____

Print Bill To Contact Name: Bob Billman
PO #
INCIDENT # (ENV SERVICES): 9 7 2 1 6 6 4 0
SAP #: 3 4 0 0 6 1
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 4/15/14
PAGE: 1 of 1

SAMPLING COMPANY: URS CORPORATION
LOG CODE:
ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300; ST. LOUIS, MO 63110
PROJECT CONTACT (Hardcopy or PDF Report to): Elizabeth Kunkel, Wendy Pennington, Bob Billman
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: bob.billman@urs.com; elizabeth.kunkel@urs.com; wendy.pennington@urs.com;
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

SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA
State: IL
GLOBAL ID NO.:
EDF DELIVERABLE TO (Name, Company, Office Location):
PHONE NO.:
E-MAIL:
CONSULTANT PROJECT NO.: Roxana Quarterly GW / 21562973.03002
SAMPLER NAME(S) (Print): D.Mattingly, M.Manske, L.Pathirow
LAB USE ONLY: mc29805

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 LEDD 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 | PID (ppm) | Container PID Readings or Laboratory Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -1 | TI2-ROX-041514 | 4/15/14 | 0740 | Water | 2 | | | 2 | 2 | 6 | X | X | X | X | 0 | |
| -2 | P74-ROX-041514-ER | | 1000 | | | | | | | 1 | X | X | X | X | | |
| -3 | P74-ROX-041514 | | 1055 | | | | | | | | X | X | X | X | | |
| -4 | PER-ROX-041514 | | 1300 | | | | | | | | X | X | X | X | | |
| -5 | P57-ROX-041514 | | 1355 | | | | | | | | X | X | X | X | | |
| -6 | P5$-ROX-041514 | | 1410 | | ↓ | | | ↓ | ↓ | ↓ | X | X | X | X | | |
| -7 | TB-ROX-041514-HCL | | 0000 | | 2 | | | | | 2 | X | | | | | 19A, 5F4 |
| -8 | TB-ROX-041514-ST | ↓ | 0000 | ↓ | | | | | 2 | 2 | | X | | | ↓ | |

FIELD NOTES:
TEMPERATURE ON RECEIPT C°: 0.6-1.5°C

| Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|---|---|---|---|
| | FED EX | 4/15/14 | 1730 |
| FEDX | | 4-16-14 | 930 |
| | | | |

05-2006 Revision

MC29805: Chain of Custody
Page 1 of 2

# Accutest Laboratories Sample Receipt Summary

**Accutest Job Number:** MC29805 **Client:** URS **Immediate Client Services Action Required:** No

**Date / Time Received:** 4/16/2014 **Delivery Method:** **Client Service Action Required at Login:** No

**Project:** 900 SOUTH CENTRAL **No. Coolers:** 2 **Airbill #'s:**

| 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. Cooler temp verification: | Infared gun | | |
| 3. Cooler media: | Ice (bag) | | |

| 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
www/accutest.com



MC29805: Chain of Custody
Page 2 of 2

# Internal Sample Tracking Chronicle

Shell Oil

Job No: MC29805

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample Number | Method | Analyzed | By | Prepped | By | Test Codes |
|---|---|---|---|---|---|---|
| MC29805-1 Collected: 15-APR-14 09:40 By: DMMM Received: 16-APR-14 By: T12-ROX-041514 | | | | | | |
| MC29805-1 | SW846 8270D BY SIM | 21-APR-14 11:53 | MR | 17-APR-14 | PA | B8270SIMSL |
| MC29805-1 | SW846 8011 | 21-APR-14 19:13 | SZ | 18-APR-14 | MT | V8011SL |
| MC29805-1 | SW846 8270D | 21-APR-14 22:48 | WK | 17-APR-14 | PA | AB8270SL+ |
| MC29805-1 | SW846 8260C | 27-APR-14 19:58 | AMY | | | V8260SL+ |
| MC29805-1 | SW846 8260C | 28-APR-14 16:19 | AMY | | | V8260SL+ |
| MC29805-2 Collected: 15-APR-14 10:00 By: DMMM Received: 16-APR-14 By: P74-ROX-041514-EB | | | | | | |
| MC29805-2 | SW846 8270D BY SIM | 21-APR-14 12:16 | MR | 17-APR-14 | PA | B8270SIMSL |
| MC29805-2 | SW846 8011 | 21-APR-14 19:38 | SZ | 18-APR-14 | MT | V8011SL |
| MC29805-2 | SW846 8270D | 21-APR-14 23:16 | WK | 17-APR-14 | PA | AB8270SL+ |
| MC29805-2 | SW846 8260C | 27-APR-14 13:23 | AMY | | | V8260SL+ |
| MC29805-3 Collected: 15-APR-14 10:55 By: DMMM Received: 16-APR-14 By: P74-ROX-041514 | | | | | | |
| MC29805-3 | SW846 8270D BY SIM | 21-APR-14 12:38 | MR | 17-APR-14 | PA | B8270SIMSL |
| MC29805-3 | SW846 8011 | 21-APR-14 20:03 | SZ | 18-APR-14 | MT | V8011SL |
| MC29805-3 | SW846 8270D | 21-APR-14 23:43 | WK | 17-APR-14 | PA | AB8270SL+ |
| MC29805-3 | SW846 8260C | 28-APR-14 14:07 | AMY | | | V8260SL+ |
| MC29805-4 Collected: 15-APR-14 13:00 By: DMMM Received: 16-APR-14 By: P59-ROX-041514 | | | | | | |
| MC29805-4 | SW846 8270D BY SIM | 21-APR-14 13:02 | MR | 17-APR-14 | PA | B8270SIMSL |
| MC29805-4 | SW846 8011 | 21-APR-14 20:29 | SZ | 18-APR-14 | MT | V8011SL |
| MC29805-4 | SW846 8270D | 22-APR-14 00:10 | WK | 17-APR-14 | PA | AB8270SL+ |
| MC29805-4 | SW846 8260C | 28-APR-14 16:45 | AMY | | | V8260SL+ |
| MC29805-4 | SW846 8260C | 29-APR-14 16:42 | AMY | | | V8260SL+ |
| MC29805-5 Collected: 15-APR-14 13:55 By: DMMM Received: 16-APR-14 By: P57-ROX-041514 | | | | | | |
| MC29805-5 | SW846 8270D BY SIM | 21-APR-14 13:24 | MR | 17-APR-14 | PA | B8270SIMSL |
| MC29805-5 | SW846 8011 | 21-APR-14 20:56 | SZ | 18-APR-14 | MT | V8011SL |
| MC29805-5 | SW846 8270D | 22-APR-14 00:37 | WK | 17-APR-14 | PA | AB8270SL+ |

# Internal Sample Tracking Chronicle

Shell Oil

Job No: MC29805

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample Number | Method | Analyzed | By | Prepped | By | Test Codes |
|---|---|---|---|---|---|---|
| MC29805-5 | SW846 8260C | 28-APR-14 17:12 | AMY | | | V8260SL+ |
| MC29805-5 | SW846 8260C | 29-APR-14 15:50 | AMY | | | V8260SL+ |
| MC29805-6 Collected: 15-APR-14 14:40 By: DMMM Received: 16-APR-14 By: P58-ROX-041514 | | | | | | |
| MC29805-6 | SW846 8270D BY SIM | 21-APR-14 13:47 | MR | 17-APR-14 | PA | B8270SIMSL |
| MC29805-6 | SW846 8011 | 21-APR-14 21:54 | SZ | 18-APR-14 | MT | V8011SL |
| MC29805-6 | SW846 8270D | 22-APR-14 01:05 | WK | 17-APR-14 | PA | AB8270SL+ |
| MC29805-6 | SW846 8260C | 28-APR-14 17:38 | AMY | | | V8260SL+ |
| MC29805-6 | SW846 8260C | 29-APR-14 16:16 | AMY | | | V8260SL+ |
| MC29805-6 | SW846 8260C | 29-APR-14 17:09 | AMY | | | V8260SL+ |
| MC29805-7 Collected: 15-APR-14 00:00 By: DMMM Received: 16-APR-14 By: TB-ROX-041514-HCL | | | | | | |
| MC29805-7 | SW846 8260C | 27-APR-14 12:30 | AMY | | | V8260SL+ |
| MC29805-8 Collected: 15-APR-14 00:00 By: DMMM Received: 16-APR-14 By: TB-ROX-041514-ST | | | | | | |
| MC29805-8 | SW846 8011 | 21-APR-14 22:24 | SZ | 18-APR-14 | MT | V8011SL |

# SGS Accutest Internal Chain of Custody



**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Received:** 04/16/14



| Sample.Bottle Number | Transfer FROM | Transfer TO | Date/Time | Reason |
|---|---|---|---|---|
| MC29805-1.1 | Walk In Ref #22 | Alireza Zeighami | 04/17/14 07:51 | Retrieve from Storage |
| MC29805-1.1 | Alireza Zeighami | | 04/17/14 15:24 | Depleted |
| MC29805-1.3 | VOC Ref #5 | Amy Min Yang | 04/28/14 12:10 | Retrieve from Storage |
| MC29805-1.3 | Amy Min Yang | GCMSV | 04/28/14 12:10 | Load on Instrument |
| MC29805-1.3 | GCMSV | Amy Min Yang | 04/29/14 14:49 | Unload from Instrument |
| MC29805-1.3 | Amy Min Yang | VOC Ref #5 | 04/29/14 14:49 | Return to Storage |
| MC29805-1.3 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29805-1.4 | VOC Ref #5 | Amy Min Yang | 04/27/14 11:16 | Retrieve from Storage |
| MC29805-1.4 | Amy Min Yang | GCMSV | 04/27/14 11:17 | Load on Instrument |
| MC29805-1.4 | GCMSV | Amy Min Yang | 04/28/14 09:33 | Unload from Instrument |
| MC29805-1.4 | Amy Min Yang | VOC Ref #5 | 04/28/14 09:33 | Return to Storage |
| MC29805-1.4 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29805-1.6 | VOC Ref #5 | Marc Tahtamoni | 04/18/14 18:53 | Retrieve from Storage |
| MC29805-1.6 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29805-2.2 | Walk In Ref #22 | Alireza Zeighami | 04/17/14 07:51 | Retrieve from Storage |
| MC29805-2.2 | Alireza Zeighami | | 04/17/14 15:24 | Depleted |
| MC29805-2.4 | VOC Ref #5 | Amy Min Yang | 04/27/14 11:16 | Retrieve from Storage |
| MC29805-2.4 | Amy Min Yang | GCMSV | 04/27/14 11:17 | Load on Instrument |
| MC29805-2.4 | GCMSV | Amy Min Yang | 04/28/14 09:33 | Unload from Instrument |
| MC29805-2.4 | Amy Min Yang | VOC Ref #5 | 04/28/14 09:33 | Return to Storage |
| MC29805-2.4 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29805-2.5 | VOC Ref #5 | Marc Tahtamoni | 04/18/14 18:53 | Retrieve from Storage |
| MC29805-2.5 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29805-3.1 | Walk In Ref #22 | Alireza Zeighami | 04/17/14 07:51 | Retrieve from Storage |
| MC29805-3.1 | Alireza Zeighami | | 04/17/14 15:24 | Depleted |
| MC29805-3.3 | VOC Ref #5 | Amy Min Yang | 04/27/14 11:16 | Retrieve from Storage |
| MC29805-3.3 | Amy Min Yang | GCMSV | 04/27/14 11:17 | Load on Instrument |
| MC29805-3.3 | GCMSV | Amy Min Yang | 04/28/14 09:33 | Unload from Instrument |
| MC29805-3.3 | Amy Min Yang | VOC Ref #5 | 04/28/14 09:33 | Return to Storage |
| MC29805-3.3 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29805-3.4 | VOC Ref #5 | Amy Min Yang | 04/28/14 12:10 | Retrieve from Storage |
| MC29805-3.4 | Amy Min Yang | GCMSV | 04/28/14 12:10 | Load on Instrument |
| MC29805-3.4 | GCMSV | Amy Min Yang | 04/29/14 14:49 | Unload from Instrument |
| MC29805-3.4 | Amy Min Yang | VOC Ref #5 | 04/29/14 14:49 | Return to Storage |
| MC29805-3.4 | Scott Parsick | | 06/25/14 13:20 | Disposed |

# SGS Accutest Internal Chain of Custody

**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Received:** 04/16/14



| Sample.Bottle Number | Transfer FROM | Transfer TO | Date/Time | Reason |
|---|---|---|---|---|
| MC29805-3.6 | VOC Ref #5 | Marc Tahtamoni | 04/18/14 18:53 | Retrieve from Storage |
| MC29805-3.6 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29805-4.2 | Walk In Ref #22 | Alireza Zeighami | 04/17/14 07:51 | Retrieve from Storage |
| MC29805-4.2 | Alireza Zeighami | | 04/17/14 15:24 | Depleted |
| MC29805-4.3 | VOC Ref #5 | Amy Min Yang | 04/28/14 12:10 | Retrieve from Storage |
| MC29805-4.3 | Amy Min Yang | GCMSV | 04/28/14 12:10 | Load on Instrument |
| MC29805-4.3 | GCMSV | Amy Min Yang | 04/29/14 14:49 | Unload from Instrument |
| MC29805-4.3 | Amy Min Yang | VOC Ref #5 | 04/29/14 14:49 | Return to Storage |
| MC29805-4.3 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29805-4.4 | VOC Ref #5 | Amy Min Yang | 04/29/14 14:53 | Retrieve from Storage |
| MC29805-4.4 | Amy Min Yang | GCMSV | 04/29/14 14:53 | Load on Instrument |
| MC29805-4.4 | GCMSV | Amy Min Yang | 04/30/14 08:58 | Unload from Instrument |
| MC29805-4.4 | Amy Min Yang | VOC Ref #5 | 04/30/14 08:58 | Return to Storage |
| MC29805-4.4 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29805-4.6 | VOC Ref #5 | Marc Tahtamoni | 04/18/14 18:53 | Retrieve from Storage |
| MC29805-4.6 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29805-5.2 | Walk In Ref #22 | Alireza Zeighami | 04/17/14 07:51 | Retrieve from Storage |
| MC29805-5.2 | Alireza Zeighami | | 04/17/14 15:24 | Depleted |
| MC29805-5.3 | VOC Ref #5 | Amy Min Yang | 04/29/14 14:53 | Retrieve from Storage |
| MC29805-5.3 | Amy Min Yang | GCMSV | 04/29/14 14:53 | Load on Instrument |
| MC29805-5.3 | GCMSV | Amy Min Yang | 04/30/14 08:58 | Unload from Instrument |
| MC29805-5.3 | Amy Min Yang | VOC Ref #5 | 04/30/14 08:58 | Return to Storage |
| MC29805-5.3 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29805-5.4 | VOC Ref #5 | Amy Min Yang | 04/28/14 12:10 | Retrieve from Storage |
| MC29805-5.4 | Amy Min Yang | GCMSV | 04/28/14 12:10 | Load on Instrument |
| MC29805-5.4 | GCMSV | Amy Min Yang | 04/29/14 14:49 | Unload from Instrument |
| MC29805-5.4 | Amy Min Yang | VOC Ref #5 | 04/29/14 14:49 | Return to Storage |
| MC29805-5.4 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29805-5.5 | VOC Ref #5 | Marc Tahtamoni | 04/18/14 18:53 | Retrieve from Storage |
| MC29805-5.5 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29805-6.1 | Walk In Ref #22 | Alireza Zeighami | 04/17/14 07:51 | Retrieve from Storage |
| MC29805-6.1 | Alireza Zeighami | | 04/17/14 15:24 | Depleted |
| MC29805-6.3 | VOC Ref #5 | Amy Min Yang | 04/28/14 12:10 | Retrieve from Storage |

# SGS Accutest Internal Chain of Custody



**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Received:** 04/16/14

| Sample.Bottle Number | Transfer FROM | Transfer TO | Date/Time | Reason |
|---|---|---|---|---|
| MC29805-6.3 | Amy Min Yang | GCMSV | 04/28/14 12:10 | Load on Instrument |
| MC29805-6.3 | GCMSV | Amy Min Yang | 04/29/14 14:49 | Unload from Instrument |
| MC29805-6.3 | Amy Min Yang | VOC Ref #5 | 04/29/14 14:49 | Return to Storage |
| MC29805-6.3 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29805-6.4 | VOC Ref #5 | Amy Min Yang | 04/29/14 14:53 | Retrieve from Storage |
| MC29805-6.4 | Amy Min Yang | GCMSV | 04/29/14 14:53 | Load on Instrument |
| MC29805-6.4 | GCMSV | Amy Min Yang | 04/30/14 08:58 | Unload from Instrument |
| MC29805-6.4 | Amy Min Yang | VOC Ref #5 | 04/30/14 08:58 | Return to Storage |
| MC29805-6.4 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29805-6.5 | VOC Ref #5 | Marc Tahtamoni | 04/18/14 18:53 | Retrieve from Storage |
| MC29805-6.5 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29805-7.1 | VOC Ref #5 | Amy Min Yang | 04/27/14 11:16 | Retrieve from Storage |
| MC29805-7.1 | Amy Min Yang | GCMSV | 04/27/14 11:17 | Load on Instrument |
| MC29805-7.1 | GCMSV | Amy Min Yang | 04/28/14 09:33 | Unload from Instrument |
| MC29805-7.1 | Amy Min Yang | VOC Ref #5 | 04/28/14 09:33 | Return to Storage |
| MC29805-7.1 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29805-8.1 | VOC Ref #5 | Marc Tahtamoni | 04/18/14 18:53 | Retrieve from Storage |
| MC29805-8.1 | Scott Parsick | | 06/25/14 13:20 | Disposed |

## 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:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1133-MB | V30310.D | 1 | 04/27/14 | AMY | n/a | n/a | MSV1133 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29805-1, MC29805-2, MC29805-7

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 2.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |

# Method Blank Summary

**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1133-MB | V30310.D | 1 | 04/27/14 | AMY | n/a | n/a | MSV1133 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29805-1, MC29805-2, MC29805-7

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | ug/l | |

# Method Blank Summary

**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1133-MB | V30310.D | 1 | 04/27/14 | AMY | n/a | n/a | MSV1133 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29805-1, MC29805-2, MC29805-7

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 92% | 70-130% |
| 2037-26-5 | Toluene-D8 | 89% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 89% | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

# Method Blank Summary



**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1134-MB | V30342.D | 1 | 04/28/14 | AMY | n/a | n/a | MSV1134 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29805-1, MC29805-3, MC29805-4, MC29805-5, MC29805-6

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 2.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |

# Method Blank Summary

**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1134-MB | V30342.D | 1 | 04/28/14 | AMY | n/a | n/a | MSV1134 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29805-1, MC29805-3, MC29805-4, MC29805-5, MC29805-6

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | ug/l | |

# Method Blank Summary



**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1134-MB | V30342.D | 1 | 04/28/14 | AMY | n/a | n/a | MSV1134 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29805-1, MC29805-3, MC29805-4, MC29805-5, MC29805-6

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 99% | 70-130% |
| 2037-26-5 | Toluene-D8 | 90% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 91% | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

# Method Blank Summary



**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1136-MB | V30408.D | 1 | 04/29/14 | AMY | n/a | n/a | MSV1136 |



**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29805-4, MC29805-5, MC29805-6

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 92% | 70-130% |
| 2037-26-5 | Toluene-D8 | 92% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 91% | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

# Blank Spike Summary



**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1133-BS | V30306.D | 1 | 04/27/14 | AMY | n/a | n/a | MSV1133 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29805-1, MC29805-2, MC29805-7

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 50 | 74.9 | 150* [a] | 70-130 |
| 107-02-8 | Acrolein | 250 | 262 | 105 | 70-130 |
| 107-13-1 | Acrylonitrile | 50 | 50.9 | 102 | 70-130 |
| 71-43-2 | Benzene | 50 | 52.8 | 106 | 70-130 |
| 108-86-1 | Bromobenzene | 50 | 52.1 | 104 | 70-130 |
| 74-97-5 | Bromochloromethane | 50 | 48.6 | 97 | 70-130 |
| 75-27-4 | Bromodichloromethane | 50 | 44.2 | 88 | 70-130 |
| 75-25-2 | Bromoform | 50 | 38.2 | 76 | 70-130 |
| 74-83-9 | Bromomethane | 50 | 41.8 | 84 | 70-130 |
| 78-93-3 | 2-Butanone (MEK) | 50 | 63.0 | 126 | 70-130 |
| 104-51-8 | n-Butylbenzene | 50 | 56.8 | 114 | 70-130 |
| 135-98-8 | sec-Butylbenzene | 50 | 57.6 | 115 | 70-130 |
| 98-06-6 | tert-Butylbenzene | 50 | 49.8 | 100 | 70-130 |
| 75-15-0 | Carbon disulfide | 50 | 52.4 | 105 | 70-130 |
| 56-23-5 | Carbon tetrachloride | 50 | 44.7 | 89 | 70-130 |
| 108-90-7 | Chlorobenzene | 50 | 52.1 | 104 | 70-130 |
| 75-00-3 | Chloroethane | 50 | 53.2 | 106 | 70-130 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 50 | 39.3 | 79 | 70-130 |
| 67-66-3 | Chloroform | 50 | 45.0 | 90 | 70-130 |
| 74-87-3 | Chloromethane | 50 | 46.6 | 93 | 70-130 |
| 95-49-8 | o-Chlorotoluene | 50 | 52.2 | 104 | 70-130 |
| 106-43-4 | p-Chlorotoluene | 50 | 52.7 | 105 | 70-130 |
| 124-48-1 | Dibromochloromethane | 50 | 41.6 | 83 | 70-130 |
| 95-50-1 | 1,2-Dichlorobenzene | 50 | 48.7 | 97 | 70-130 |
| 541-73-1 | 1,3-Dichlorobenzene | 50 | 51.0 | 102 | 70-130 |
| 106-46-7 | 1,4-Dichlorobenzene | 50 | 50.8 | 102 | 70-130 |
| 75-71-8 | Dichlorodifluoromethane | 50 | 40.0 | 80 | 70-130 |
| 75-34-3 | 1,1-Dichloroethane | 50 | 51.1 | 102 | 70-130 |
| 107-06-2 | 1,2-Dichloroethane | 50 | 40.4 | 81 | 70-130 |
| 75-35-4 | 1,1-Dichloroethene | 50 | 55.2 | 110 | 70-130 |
| 156-59-2 | cis-1,2-Dichloroethene | 50 | 52.3 | 105 | 70-130 |
| 156-60-5 | trans-1,2-Dichloroethene | 50 | 52.3 | 105 | 70-130 |
| 78-87-5 | 1,2-Dichloropropane | 50 | 57.5 | 115 | 70-130 |
| 142-28-9 | 1,3-Dichloropropane | 50 | 52.3 | 105 | 70-130 |
| 594-20-7 | 2,2-Dichloropropane | 50 | 46.5 | 93 | 70-130 |
| 563-58-6 | 1,1-Dichloropropene | 50 | 49.3 | 99 | 70-130 |

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1133-BS | V30306.D | 1 | 04/27/14 | AMY | n/a | n/a | MSV1133 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29805-1, MC29805-2, MC29805-7

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | 50 | 45.2 | 90 | 70-130 |
| 10061-02-6 | trans-1,3-Dichloropropene | 50 | 54.2 | 108 | 70-130 |
| 123-91-1 | 1,4-Dioxane | 250 | 230 | 92 | 70-130 |
| 97-63-2 | Ethyl methacrylate | 50 | 46.8 | 94 | 77-137 |
| 100-41-4 | Ethylbenzene | 50 | 54.8 | 110 | 70-130 |
| 87-68-3 | Hexachlorobutadiene | 50 | 43.7 | 87 | 70-130 |
| 591-78-6 | 2-Hexanone | 50 | 73.2 | 146* [a] | 70-130 |
| 98-82-8 | Isopropylbenzene | 50 | 55.4 | 111 | 70-130 |
| 99-87-6 | p-Isopropyltoluene | 50 | 54.9 | 110 | 70-130 |
| 1634-04-4 | Methyl Tert Butyl Ether | 50 | 45.5 | 91 | 70-130 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 50 | 52.7 | 105 | 70-130 |
| 74-95-3 | Methylene bromide | 50 | 47.8 | 96 | 70-130 |
| 75-09-2 | Methylene chloride | 50 | 53.2 | 106 | 70-130 |
| 91-20-3 | Naphthalene | 50 | 46.8 | 94 | 70-130 |
| 103-65-1 | n-Propylbenzene | 50 | 55.5 | 111 | 70-130 |
| 100-42-5 | Styrene | 50 | 56.3 | 113 | 70-130 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 50 | 50.3 | 101 | 70-130 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 50 | 60.3 | 121 | 70-130 |
| 127-18-4 | Tetrachloroethene | 50 | 51.7 | 103 | 70-130 |
| 108-88-3 | Toluene | 50 | 56.0 | 112 | 70-130 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 50 | 48.1 | 96 | 70-130 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 50 | 43.1 | 86 | 70-130 |
| 71-55-6 | 1,1,1-Trichloroethane | 50 | 45.8 | 92 | 70-130 |
| 79-00-5 | 1,1,2-Trichloroethane | 50 | 55.1 | 110 | 70-130 |
| 79-01-6 | Trichloroethene | 50 | 47.6 | 95 | 70-130 |
| 75-69-4 | Trichlorofluoromethane | 50 | 44.8 | 90 | 70-130 |
| 96-18-4 | 1,2,3-Trichloropropane | 50 | 52.8 | 106 | 70-130 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 50 | 53.1 | 106 | 70-130 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 50 | 54.8 | 110 | 70-130 |
| 108-05-4 | Vinyl Acetate | 50 | 48.7 | 97 | 70-130 |
| 75-01-4 | Vinyl chloride | 50 | 50.0 | 100 | 70-130 |
| | m,p-Xylene | 100 | 113 | 113 | 70-130 |
| 95-47-6 | o-Xylene | 50 | 55.5 | 111 | 70-130 |
| 1330-20-7 | Xylene (total) | 150 | 168 | 112 | 70-130 |

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1133-BS | V30306.D | 1 | 04/27/14 | AMY | n/a | n/a | MSV1133 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29805-1, MC29805-2, MC29805-7

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 81% | 70-130% |
| 2037-26-5 | Toluene-D8 | 91% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 89% | 70-130% |

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1134-BS | V30339.D | 1 | 04/28/14 | AMY | n/a | n/a | MSV1134 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29805-1, MC29805-3, MC29805-4, MC29805-5, MC29805-6

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 50 | 33.8 | 68* [a] | 70-130 |
| 107-02-8 | Acrolein | 250 | 281 | 112 | 70-130 |
| 107-13-1 | Acrylonitrile | 50 | 54.3 | 109 | 70-130 |
| 71-43-2 | Benzene | 50 | 52.2 | 104 | 70-130 |
| 108-86-1 | Bromobenzene | 50 | 53.8 | 108 | 70-130 |
| 74-97-5 | Bromochloromethane | 50 | 50.8 | 102 | 70-130 |
| 75-27-4 | Bromodichloromethane | 50 | 46.4 | 93 | 70-130 |
| 75-25-2 | Bromoform | 50 | 40.6 | 81 | 70-130 |
| 74-83-9 | Bromomethane | 50 | 43.4 | 87 | 70-130 |
| 78-93-3 | 2-Butanone (MEK) | 50 | 45.4 | 91 | 70-130 |
| 104-51-8 | n-Butylbenzene | 50 | 55.4 | 111 | 70-130 |
| 135-98-8 | sec-Butylbenzene | 50 | 56.6 | 113 | 70-130 |
| 98-06-6 | tert-Butylbenzene | 50 | 51.1 | 102 | 70-130 |
| 75-15-0 | Carbon disulfide | 50 | 51.7 | 103 | 70-130 |
| 56-23-5 | Carbon tetrachloride | 50 | 45.9 | 92 | 70-130 |
| 108-90-7 | Chlorobenzene | 50 | 52.7 | 105 | 70-130 |
| 75-00-3 | Chloroethane | 50 | 54.1 | 108 | 70-130 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 50 | 38.1 | 76 | 70-130 |
| 67-66-3 | Chloroform | 50 | 47.4 | 95 | 70-130 |
| 74-87-3 | Chloromethane | 50 | 44.8 | 90 | 70-130 |
| 95-49-8 | o-Chlorotoluene | 50 | 53.2 | 106 | 70-130 |
| 106-43-4 | p-Chlorotoluene | 50 | 53.6 | 107 | 70-130 |
| 124-48-1 | Dibromochloromethane | 50 | 44.1 | 88 | 70-130 |
| 95-50-1 | 1,2-Dichlorobenzene | 50 | 50.3 | 101 | 70-130 |
| 541-73-1 | 1,3-Dichlorobenzene | 50 | 51.9 | 104 | 70-130 |
| 106-46-7 | 1,4-Dichlorobenzene | 50 | 52.1 | 104 | 70-130 |
| 75-71-8 | Dichlorodifluoromethane | 50 | 36.4 | 73 | 70-130 |
| 75-34-3 | 1,1-Dichloroethane | 50 | 52.4 | 105 | 70-130 |
| 107-06-2 | 1,2-Dichloroethane | 50 | 43.3 | 87 | 70-130 |
| 75-35-4 | 1,1-Dichloroethene | 50 | 55.0 | 110 | 70-130 |
| 156-59-2 | cis-1,2-Dichloroethene | 50 | 52.8 | 106 | 70-130 |
| 156-60-5 | trans-1,2-Dichloroethene | 50 | 52.3 | 105 | 70-130 |
| 78-87-5 | 1,2-Dichloropropane | 50 | 57.2 | 114 | 70-130 |
| 142-28-9 | 1,3-Dichloropropane | 50 | 54.6 | 109 | 70-130 |
| 594-20-7 | 2,2-Dichloropropane | 50 | 48.0 | 96 | 70-130 |
| 563-58-6 | 1,1-Dichloropropene | 50 | 49.0 | 98 | 70-130 |

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1134-BS | V30339.D | 1 | 04/28/14 | AMY | n/a | n/a | MSV1134 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29805-1, MC29805-3, MC29805-4, MC29805-5, MC29805-6

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | 50 | 46.8 | 94 | 70-130 |
| 10061-02-6 | trans-1,3-Dichloropropene | 50 | 56.9 | 114 | 70-130 |
| 123-91-1 | 1,4-Dioxane | 250 | 232 | 93 | 70-130 |
| 97-63-2 | Ethyl methacrylate | 50 | 48.8 | 98 | 77-137 |
| 100-41-4 | Ethylbenzene | 50 | 55.0 | 110 | 70-130 |
| 87-68-3 | Hexachlorobutadiene | 50 | 41.9 | 84 | 70-130 |
| 591-78-6 | 2-Hexanone | 50 | 42.6 | 85 | 70-130 |
| 98-82-8 | Isopropylbenzene | 50 | 54.7 | 109 | 70-130 |
| 99-87-6 | p-Isopropyltoluene | 50 | 54.6 | 109 | 70-130 |
| 1634-04-4 | Methyl Tert Butyl Ether | 50 | 46.9 | 94 | 70-130 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 50 | 49.0 | 98 | 70-130 |
| 74-95-3 | Methylene bromide | 50 | 49.5 | 99 | 70-130 |
| 75-09-2 | Methylene chloride | 50 | 53.6 | 107 | 70-130 |
| 91-20-3 | Naphthalene | 50 | 51.8 | 104 | 70-130 |
| 103-65-1 | n-Propylbenzene | 50 | 55.7 | 111 | 70-130 |
| 100-42-5 | Styrene | 50 | 57.0 | 114 | 70-130 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 50 | 51.2 | 102 | 70-130 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 50 | 62.0 | 124 | 70-130 |
| 127-18-4 | Tetrachloroethene | 50 | 51.9 | 104 | 70-130 |
| 108-88-3 | Toluene | 50 | 55.8 | 112 | 70-130 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 50 | 52.4 | 105 | 70-130 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 50 | 44.8 | 90 | 70-130 |
| 71-55-6 | 1,1,1-Trichloroethane | 50 | 47.2 | 94 | 70-130 |
| 79-00-5 | 1,1,2-Trichloroethane | 50 | 56.0 | 112 | 70-130 |
| 79-01-6 | Trichloroethene | 50 | 47.7 | 95 | 70-130 |
| 75-69-4 | Trichlorofluoromethane | 50 | 45.1 | 90 | 70-130 |
| 96-18-4 | 1,2,3-Trichloropropane | 50 | 68.2 | 136* [b] | 70-130 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 50 | 53.9 | 108 | 70-130 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 50 | 55.0 | 110 | 70-130 |
| 108-05-4 | Vinyl Acetate | 50 | 50.3 | 101 | 70-130 |
| 75-01-4 | Vinyl chloride | 50 | 49.7 | 99 | 70-130 |
| | m,p-Xylene | 100 | 113 | 113 | 70-130 |
| 95-47-6 | o-Xylene | 50 | 55.1 | 110 | 70-130 |
| 1330-20-7 | Xylene (total) | 150 | 168 | 112 | 70-130 |

* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1134-BS | V30339.D | 1 | 04/28/14 | AMY | n/a | n/a | MSV1134 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29805-1, MC29805-3, MC29805-4, MC29805-5, MC29805-6

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 84% | 70-130% |
| 2037-26-5 | Toluene-D8 | 91% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 91% | 70-130% |

(a) Outside control limits. Blank Spike meets program technical requirements.
(b) Outside control limits. Associated samples are non-detect for this compound.

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1136-BS | V30405.D | 1 | 04/29/14 | AMY | n/a | n/a | MSV1136 |



**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29805-4, MC29805-5, MC29805-6

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 71-43-2 | Benzene | 50 | 49.7 | 99 | 70-130 |
| 100-41-4 | Ethylbenzene | 50 | 53.2 | 106 | 70-130 |
| 108-88-3 | Toluene | 50 | 54.8 | 110 | 70-130 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 50 | 51.1 | 102 | 70-130 |
| | m,p-Xylene | 100 | 107 | 107 | 70-130 |
| 95-47-6 | o-Xylene | 50 | 52.9 | 106 | 70-130 |
| 1330-20-7 | Xylene (total) | 150 | 160 | 107 | 70-130 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 83% | 70-130% |
| 2037-26-5 | Toluene-D8 | 93% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 91% | 70-130% |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29804-1MS | V30331.D | 1 | 04/27/14 | AMY | n/a | n/a | MSV1133 |
| MC29804-1MSD | V30332.D | 1 | 04/27/14 | AMY | n/a | n/a | MSV1133 |
| MC29804-1 | V30315.D | 1 | 04/27/14 | AMY | n/a | n/a | MSV1133 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29805-1, MC29805-2, MC29805-7

| CAS No. | Compound | MC29804-1 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 | 51.8 | 104 | 50 | 52.9 | 106 | 2 | 70-130/30 |
| 107-02-8 | Acrolein | ND | | 250 | 241 | 96 | 250 | 247 | 99 | 2 | 70-130/30 |
| 107-13-1 | Acrylonitrile | ND | | 50 | 52.6 | 105 | 50 | 51.7 | 103 | 2 | 70-130/30 |
| 71-43-2 | Benzene | 0.90 | | 50 | 52.6 | 103 | 50 | 51.1 | 100 | 3 | 70-130/30 |
| 108-86-1 | Bromobenzene | ND | | 50 | 51.1 | 102 | 50 | 50.9 | 102 | 0 | 70-130/30 |
| 74-97-5 | Bromochloromethane | ND | | 50 | 47.9 | 96 | 50 | 47.1 | 94 | 2 | 70-130/30 |
| 75-27-4 | Bromodichloromethane | ND | | 50 | 42.1 | 84 | 50 | 41.5 | 83 | 1 | 70-130/30 |
| 75-25-2 | Bromoform | ND | | 50 | 36.8 | 74 | 50 | 36.2 | 72 | 2 | 70-130/30 |
| 74-83-9 | Bromomethane | ND | | 50 | 40.4 | 81 | 50 | 40.3 | 81 | 0 | 70-130/30 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 50 | 41.1 | 82 | 50 | 39.0 | 78 | 5 | 70-130/30 |
| 104-51-8 | n-Butylbenzene | ND | | 50 | 51.0 | 102 | 50 | 51.6 | 103 | 1 | 70-130/30 |
| 135-98-8 | sec-Butylbenzene | ND | | 50 | 54.4 | 109 | 50 | 54.8 | 110 | 1 | 70-130/30 |
| 98-06-6 | tert-Butylbenzene | ND | | 50 | 48.4 | 97 | 50 | 48.3 | 97 | 0 | 70-130/30 |
| 75-15-0 | Carbon disulfide | ND | | 50 | 50.2 | 100 | 50 | 49.4 | 99 | 2 | 70-130/30 |
| 56-23-5 | Carbon tetrachloride | ND | | 50 | 42.7 | 85 | 50 | 42.1 | 84 | 1 | 70-130/30 |
| 108-90-7 | Chlorobenzene | ND | | 50 | 50.7 | 101 | 50 | 49.9 | 100 | 2 | 70-130/30 |
| 75-00-3 | Chloroethane | ND | | 50 | 51.0 | 102 | 50 | 51.8 | 104 | 2 | 70-130/30 |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | | 50 | ND | 0* [a] | 50 | ND | 0* [a] | nc | 70-130/30 |
| 67-66-3 | Chloroform | ND | | 50 | 44.1 | 88 | 50 | 42.8 | 86 | 3 | 70-130/30 |
| 74-87-3 | Chloromethane | ND | | 50 | 46.5 | 93 | 50 | 43.8 | 88 | 6 | 70-130/30 |
| 95-49-8 | o-Chlorotoluene | ND | | 50 | 50.2 | 100 | 50 | 50.1 | 100 | 0 | 70-130/30 |
| 106-43-4 | p-Chlorotoluene | ND | | 50 | 50.6 | 101 | 50 | 50.3 | 101 | 1 | 70-130/30 |
| 124-48-1 | Dibromochloromethane | ND | | 50 | 41.1 | 82 | 50 | 40.7 | 81 | 1 | 70-130/30 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 50 | 45.8 | 92 | 50 | 47.3 | 95 | 3 | 70-130/30 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 50 | 48.5 | 97 | 50 | 49.2 | 98 | 1 | 70-130/30 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 50 | 48.2 | 96 | 50 | 49.2 | 98 | 2 | 70-130/30 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 50 | 34.2 | 68* [a] | 50 | 35.0 | 70 | 2 | 70-130/30 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 50 | 50.3 | 101 | 50 | 49.2 | 98 | 2 | 70-130/30 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 50 | 40.4 | 81 | 50 | 39.2 | 78 | 3 | 70-130/30 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 50 | 54.0 | 108 | 50 | 54.0 | 108 | 0 | 70-130/30 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 50 | 50.5 | 101 | 50 | 49.5 | 99 | 2 | 70-130/30 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 50 | 51.2 | 102 | 50 | 49.5 | 99 | 3 | 70-130/30 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 50 | 56.8 | 114 | 50 | 55.7 | 111 | 2 | 70-130/30 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 50 | 52.3 | 105 | 50 | 52.3 | 105 | 0 | 70-130/30 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 50 | 34.9 | 70 | 50 | 34.6 | 69* [a] | 1 | 70-130/30 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 50 | 48.0 | 96 | 50 | 46.0 | 92 | 4 | 70-130/30 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29804-1MS | V30331.D | 1 | 04/27/14 | AMY | n/a | n/a | MSV1133 |
| MC29804-1MSD | V30332.D | 1 | 04/27/14 | AMY | n/a | n/a | MSV1133 |
| MC29804-1 | V30315.D | 1 | 04/27/14 | AMY | n/a | n/a | MSV1133 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29805-1, MC29805-2, MC29805-7

| CAS No. | Compound | MC29804-1 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 | 41.4 | 83 | 50 | 40.2 | 80 | 3 | 70-130/30 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 50 | 51.6 | 103 | 50 | 50.7 | 101 | 2 | 70-130/30 |
| 123-91-1 | 1,4-Dioxane | ND | | 250 | 203 | 81 | 250 | 227 | 91 | 11 | 70-130/30 |
| 97-63-2 | Ethyl methacrylate | ND | | 50 | 47.8 | 96 | 50 | 47.2 | 94 | 1 | 72-139/30 |
| 100-41-4 | Ethylbenzene | ND | | 50 | 53.2 | 106 | 50 | 51.7 | 103 | 3 | 70-130/30 |
| 87-68-3 | Hexachlorobutadiene | ND | | 50 | 37.4 | 75 | 50 | 40.6 | 81 | 8 | 70-130/30 |
| 591-78-6 | 2-Hexanone | ND | | 50 | 43.0 | 86 | 50 | 42.2 | 84 | 2 | 70-130/30 |
| 98-82-8 | Isopropylbenzene | ND | | 50 | 53.7 | 107 | 50 | 53.7 | 107 | 0 | 70-130/30 |
| 99-87-6 | p-Isopropyltoluene | ND | | 50 | 51.7 | 103 | 50 | 51.8 | 104 | 0 | 70-130/30 |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | | 50 | 46.1 | 92 | 50 | 46.2 | 92 | 0 | 70-130/30 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 50 | 48.7 | 97 | 50 | 48.5 | 97 | 0 | 70-130/30 |
| 74-95-3 | Methylene bromide | ND | | 50 | 47.0 | 94 | 50 | 45.7 | 91 | 3 | 70-130/30 |
| 75-09-2 | Methylene chloride | ND | | 50 | 51.6 | 103 | 50 | 50.9 | 102 | 1 | 70-130/30 |
| 91-20-3 | Naphthalene | ND | | 50 | 40.6 | 81 | 50 | 51.5 | 103 | 24 | 70-130/30 |
| 103-65-1 | n-Propylbenzene | ND | | 50 | 53.3 | 107 | 50 | 52.5 | 105 | 2 | 70-130/30 |
| 100-42-5 | Styrene | ND | | 50 | 54.7 | 109 | 50 | 53.5 | 107 | 2 | 70-130/30 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 50 | 48.8 | 98 | 50 | 48.5 | 97 | 1 | 70-130/30 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 50 | 59.3 | 119 | 50 | 60.5 | 121 | 2 | 70-130/30 |
| 127-18-4 | Tetrachloroethene | ND | | 50 | 49.7 | 99 | 50 | 48.4 | 97 | 3 | 70-130/30 |
| 108-88-3 | Toluene | ND | | 50 | 54.0 | 108 | 50 | 53.0 | 106 | 2 | 70-130/30 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 50 | 31.2 | 62* [a] | 50 | 46.8 | 94 | 40* [b] | 70-130/30 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 50 | 34.6 | 69* [a] | 50 | 41.8 | 84 | 19 | 70-130/30 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 50 | 44.3 | 89 | 50 | 44.1 | 88 | 0 | 70-130/30 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 50 | 54.7 | 109 | 50 | 53.9 | 108 | 1 | 70-130/30 |
| 79-01-6 | Trichloroethene | ND | | 50 | 45.3 | 91 | 50 | 44.6 | 89 | 2 | 70-130/30 |
| 75-69-4 | Trichlorofluoromethane | ND | | 50 | 42.2 | 84 | 50 | 41.9 | 84 | 1 | 70-130/30 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 50 | 62.2 | 124 | 50 | 63.3 | 127 | 2 | 70-130/30 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 50 | 51.4 | 103 | 50 | 51.1 | 102 | 1 | 70-130/30 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 50 | 52.0 | 104 | 50 | 52.1 | 104 | 0 | 70-130/30 |
| 108-05-4 | Vinyl Acetate | ND | | 50 | 45.5 | 91 | 50 | 45.0 | 90 | 1 | 70-130/30 |
| 75-01-4 | Vinyl chloride | ND | | 50 | 48.8 | 98 | 50 | 48.5 | 97 | 1 | 70-130/30 |
| | m,p-Xylene | ND | | 100 | 110 | 110 | 100 | 107 | 107 | 3 | 70-130/30 |
| 95-47-6 | o-Xylene | ND | | 50 | 53.8 | 108 | 50 | 53.1 | 106 | 1 | 70-130/30 |
| 1330-20-7 | Xylene (total) | ND | | 150 | 163 | 109 | 150 | 160 | 107 | 2 | 70-130/30 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29804-1MS | V30331.D | 1 | 04/27/14 | AMY | n/a | n/a | MSV1133 |
| MC29804-1MSD | V30332.D | 1 | 04/27/14 | AMY | n/a | n/a | MSV1133 |
| MC29804-1 | V30315.D | 1 | 04/27/14 | AMY | n/a | n/a | MSV1133 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29805-1, MC29805-2, MC29805-7

| CAS No. | Surrogate Recoveries | MS | MSD | MC29804-1 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 80% | 79% | 99% | 70-130% |
| 2037-26-5 | Toluene-D8 | 91% | 90% | 90% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 92% | 91% | 88% | 70-130% |

(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:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29804-4MS | V30353.D | 5 | 04/28/14 | AMY | n/a | n/a | MSV1134 |
| MC29804-4MSD | V30354.D | 5 | 04/28/14 | AMY | n/a | n/a | MSV1134 |
| MC29804-4 | V30343.D | 1 | 04/28/14 | AMY | n/a | n/a | MSV1134 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29805-1, MC29805-3, MC29805-4, MC29805-5, MC29805-6

| CAS No. | Compound | MC29804-4 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 | 189 | 76 | 250 | 198 | 79 | 5 | 70-130/30 |
| 107-02-8 | Acrolein | ND | | 1250 | 1250 | 100 | 1250 | 1350 | 108 | 8 | 70-130/30 |
| 107-13-1 | Acrylonitrile | ND | | 250 | 292 | 117 | 250 | 304 | 122 | 4 | 70-130/30 |
| 71-43-2 | Benzene | ND | | 250 | 276 | 110 | 250 | 291 | 116 | 5 | 70-130/30 |
| 108-86-1 | Bromobenzene | ND | | 250 | 263 | 105 | 250 | 287 | 115 | 9 | 70-130/30 |
| 74-97-5 | Bromochloromethane | ND | | 250 | 267 | 107 | 250 | 275 | 110 | 3 | 70-130/30 |
| 75-27-4 | Bromodichloromethane | ND | | 250 | 250 | 100 | 250 | 261 | 104 | 4 | 70-130/30 |
| 75-25-2 | Bromoform | ND | | 250 | 218 | 87 | 250 | 220 | 88 | 1 | 70-130/30 |
| 74-83-9 | Bromomethane | ND | | 250 | 213 | 85 | 250 | 225 | 90 | 5 | 70-130/30 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 250 | 230 | 92 | 250 | 241 | 96 | 5 | 70-130/30 |
| 104-51-8 | n-Butylbenzene | ND | | 250 | 275 | 110 | 250 | 300 | 120 | 9 | 70-130/30 |
| 135-98-8 | sec-Butylbenzene | ND | | 250 | 280 | 112 | 250 | 313 | 125 | 11 | 70-130/30 |
| 98-06-6 | tert-Butylbenzene | ND | | 250 | 253 | 101 | 250 | 282 | 113 | 11 | 70-130/30 |
| 75-15-0 | Carbon disulfide | ND | | 250 | 267 | 107 | 250 | 285 | 114 | 7 | 70-130/30 |
| 56-23-5 | Carbon tetrachloride | ND | | 250 | 255 | 102 | 250 | 267 | 107 | 5 | 70-130/30 |
| 108-90-7 | Chlorobenzene | ND | | 250 | 269 | 108 | 250 | 284 | 114 | 5 | 70-130/30 |
| 75-00-3 | Chloroethane | ND | | 250 | 265 | 106 | 250 | 278 | 111 | 5 | 70-130/30 |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | | 250 | ND | 0* [a] | 250 | ND | 0* [a] | nc | 70-130/30 |
| 67-66-3 | Chloroform | ND | | 250 | 255 | 102 | 250 | 261 | 104 | 2 | 70-130/30 |
| 74-87-3 | Chloromethane | ND | | 250 | 234 | 94 | 250 | 235 | 94 | 0 | 70-130/30 |
| 95-49-8 | o-Chlorotoluene | ND | | 250 | 261 | 104 | 250 | 284 | 114 | 8 | 70-130/30 |
| 106-43-4 | p-Chlorotoluene | ND | | 250 | 270 | 108 | 250 | 287 | 115 | 6 | 70-130/30 |
| 124-48-1 | Dibromochloromethane | ND | | 250 | 233 | 93 | 250 | 249 | 100 | 7 | 70-130/30 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 250 | 244 | 98 | 250 | 271 | 108 | 10 | 70-130/30 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 250 | 253 | 101 | 250 | 276 | 110 | 9 | 70-130/30 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 250 | 259 | 104 | 250 | 278 | 111 | 7 | 70-130/30 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 250 | 187 | 75 | 250 | 193 | 77 | 3 | 70-130/30 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 250 | 276 | 110 | 250 | 287 | 115 | 4 | 70-130/30 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 250 | 245 | 98 | 250 | 254 | 102 | 4 | 70-130/30 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 250 | 284 | 114 | 250 | 304 | 122 | 7 | 70-130/30 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 250 | 271 | 108 | 250 | 284 | 114 | 5 | 70-130/30 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 250 | 276 | 110 | 250 | 286 | 114 | 4 | 70-130/30 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 250 | 305 | 122 | 250 | 321 | 128 | 5 | 70-130/30 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 250 | 284 | 114 | 250 | 302 | 121 | 6 | 70-130/30 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 250 | 237 | 95 | 250 | 249 | 100 | 5 | 70-130/30 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 250 | 261 | 104 | 250 | 277 | 111 | 6 | 70-130/30 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29804-4MS | V30353.D | 5 | 04/28/14 | AMY | n/a | n/a | MSV1134 |
| MC29804-4MSD | V30354.D | 5 | 04/28/14 | AMY | n/a | n/a | MSV1134 |
| MC29804-4 | V30343.D | 1 | 04/28/14 | AMY | n/a | n/a | MSV1134 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29805-1, MC29805-3, MC29805-4, MC29805-5, MC29805-6

| CAS No. | Compound | MC29804-4 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 | 229 | 92 | 250 | 242 | 97 | 6 | 70-130/30 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 250 | 294 | 118 | 250 | 307 | 123 | 4 | 70-130/30 |
| 123-91-1 | 1,4-Dioxane | ND | | 1250 | 1280 | 102 | 1250 | 1400 | 112 | 9 | 70-130/30 |
| 97-63-2 | Ethyl methacrylate | ND | | 250 | 258 | 103 | 250 | 267 | 107 | 3 | 72-139/30 |
| 100-41-4 | Ethylbenzene | ND | | 250 | 282 | 113 | 250 | 297 | 119 | 5 | 70-130/30 |
| 87-68-3 | Hexachlorobutadiene | ND | | 250 | 204 | 82 | 250 | 237 | 95 | 15 | 70-130/30 |
| 591-78-6 | 2-Hexanone | ND | | 250 | 231 | 92 | 250 | 246 | 98 | 6 | 70-130/30 |
| 98-82-8 | Isopropylbenzene | ND | | 250 | 269 | 108 | 250 | 298 | 119 | 10 | 70-130/30 |
| 99-87-6 | p-Isopropyltoluene | ND | | 250 | 266 | 106 | 250 | 297 | 119 | 11 | 70-130/30 |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | | 250 | 247 | 99 | 250 | 260 | 104 | 5 | 70-130/30 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 250 | 265 | 106 | 250 | 279 | 112 | 5 | 70-130/30 |
| 74-95-3 | Methylene bromide | ND | | 250 | 272 | 109 | 250 | 281 | 112 | 3 | 70-130/30 |
| 75-09-2 | Methylene chloride | ND | | 250 | 281 | 112 | 250 | 296 | 118 | 5 | 70-130/30 |
| 91-20-3 | Naphthalene | ND | | 250 | 246 | 98 | 250 | 312 | 125 | 24 | 70-130/30 |
| 103-65-1 | n-Propylbenzene | ND | | 250 | 275 | 110 | 250 | 296 | 118 | 7 | 70-130/30 |
| 100-42-5 | Styrene | ND | | 250 | 293 | 117 | 250 | 308 | 123 | 5 | 70-130/30 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 250 | 270 | 108 | 250 | 291 | 116 | 7 | 70-130/30 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 250 | 313 | 125 | 250 | 350 | 140* [a] | 11 | 70-130/30 |
| 127-18-4 | Tetrachloroethene | ND | | 250 | 266 | 106 | 250 | 279 | 112 | 5 | 70-130/30 |
| 108-88-3 | Toluene | ND | | 250 | 291 | 116 | 250 | 301 | 120 | 3 | 70-130/30 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 250 | 166 | 66* [a] | 250 | 281 | 112 | 51* [b] | 70-130/30 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 250 | 179 | 72 | 250 | 240 | 96 | 29 | 70-130/30 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 250 | 253 | 101 | 250 | 264 | 106 | 4 | 70-130/30 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 250 | 308 | 123 | 250 | 311 | 124 | 1 | 70-130/30 |
| 79-01-6 | Trichloroethene | ND | | 250 | 249 | 100 | 250 | 264 | 106 | 6 | 70-130/30 |
| 75-69-4 | Trichlorofluoromethane | ND | | 250 | 237 | 95 | 250 | 246 | 98 | 4 | 70-130/30 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 250 | 283 | 113 | 250 | 372 | 149* [a] | 27 | 70-130/30 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 250 | 266 | 106 | 250 | 293 | 117 | 10 | 70-130/30 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 250 | 270 | 108 | 250 | 295 | 118 | 9 | 70-130/30 |
| 108-05-4 | Vinyl Acetate | ND | | 250 | 265 | 106 | 250 | 278 | 111 | 5 | 70-130/30 |
| 75-01-4 | Vinyl chloride | ND | | 250 | 242 | 97 | 250 | 258 | 103 | 6 | 70-130/30 |
| | m,p-Xylene | ND | | 500 | 572 | 114 | 500 | 608 | 122 | 6 | 70-130/30 |
| 95-47-6 | o-Xylene | ND | | 250 | 280 | 112 | 250 | 304 | 122 | 8 | 70-130/30 |
| 1330-20-7 | Xylene (total) | ND | | 750 | 853 | 114 | 750 | 912 | 122 | 7 | 70-130/30 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29804-4MS | V30353.D | 5 | 04/28/14 | AMY | n/a | n/a | MSV1134 |
| MC29804-4MSD | V30354.D | 5 | 04/28/14 | AMY | n/a | n/a | MSV1134 |
| MC29804-4 | V30343.D | 1 | 04/28/14 | AMY | n/a | n/a | MSV1134 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29805-1, MC29805-3, MC29805-4, MC29805-5, MC29805-6

| CAS No. | Surrogate Recoveries | MS | MSD | MC29804-4 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 86% | 84% | 100% | 70-130% |
| 2037-26-5 | Toluene-D8 | 93% | 91% | 89% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 90% | 91% | 91% | 70-130% |

(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:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC30021-1MS | V30420.D | 5 | 04/29/14 | AMY | n/a | n/a | MSV1136 |
| MC30021-1MSD | V30421.D | 5 | 04/29/14 | AMY | n/a | n/a | MSV1136 |
| MC30021-1 | V30426.D | 1 | 04/29/14 | AMY | n/a | n/a | MSV1136 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29805-4, MC29805-5, MC29805-6

| CAS No. | Compound | MC30021-1 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 | 285 | 114 | 250 | 267 | 107 | 7 | 70-130/30 |
| 100-41-4 | Ethylbenzene | ND | | 250 | 295 | 118 | 250 | 283 | 113 | 4 | 70-130/30 |
| 108-88-3 | Toluene | ND | | 250 | 309 | 124 | 250 | 289 | 116 | 7 | 70-130/30 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 250 | 312 | 125 | 250 | 278 | 111 | 12 | 70-130/30 |
| | m,p-Xylene | ND | | 500 | 608 | 122 | 500 | 580 | 116 | 5 | 70-130/30 |
| 95-47-6 | o-Xylene | ND | | 250 | 304 | 122 | 250 | 290 | 116 | 5 | 70-130/30 |
| 1330-20-7 | Xylene (total) | ND | | 750 | 912 | 122 | 750 | 870 | 116 | 5 | 70-130/30 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC30021-1 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 79% | 78% | 90% | 70-130% |
| 2037-26-5 | Toluene-D8 | 92% | 92% | 90% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 92% | 92% | 90% | 70-130% |

* = Outside of Control Limits.

# Volatile Internal Standard Area Summary



**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSV1133-CC1058 | **Injection Date:** | 04/27/14 |
| **Lab File ID:** | V30306.D | **Injection Time:** | 09:54 |
| **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 | 444998 | 6.56 | 644319 | 7.74 | 298836 | 11.08 | 302232 | 13.29 | 66095 | 3.50 |
| Upper Limit [a] | 889996 | 7.06 | 1288638 | 8.24 | 597672 | 11.58 | 604464 | 13.79 | 132190 | 4.00 |
| Lower Limit [b] | 222499 | 6.06 | 322160 | 7.24 | 149418 | 10.58 | 151116 | 12.79 | 33048 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| MSV1133-BS | 444998 | 6.56 | 644319 | 7.74 | 298836 | 11.08 | 302232 | 13.29 | 66095 | 3.50 |
| MSV1133-MB | 325507 | 6.55 | 501650 | 7.74 | 239873 | 11.08 | 221223 | 13.29 | 55322 | 3.49 |
| ZZZZZZ | 333731 | 6.56 | 523534 | 7.74 | 254076 | 11.08 | 231609 | 13.29 | 53448 | 3.50 |
| MC29805-7 | 312734 | 6.55 | 498012 | 7.74 | 241675 | 11.08 | 222631 | 13.29 | 49249 | 3.50 |
| ZZZZZZ | 292719 | 6.55 | 467434 | 7.74 | 225762 | 11.08 | 208731 | 13.29 | 45392 | 3.49 |
| MC29805-2 | 304852 | 6.56 | 477575 | 7.74 | 229894 | 11.08 | 210116 | 13.29 | 56251 | 3.50 |
| MC29804-1 | 289764 | 6.55 | 456400 | 7.74 | 222526 | 11.08 | 200832 | 13.29 | 50955 | 3.50 |
| ZZZZZZ | 298826 | 6.56 | 472102 | 7.74 | 241494 | 11.08 | 215710 | 13.29 | 48275 | 3.50 |
| ZZZZZZ | 299723 | 6.56 | 492345 | 7.74 | 237146 | 11.08 | 207096 | 13.29 | 53840 | 3.50 |
| ZZZZZZ | 376963 | 6.55 | 556536 | 7.74 | 282352 | 11.08 | 264347 | 13.29 | 58290 | 3.50 |
| ZZZZZZ | 468706 | 6.56 | 707169 | 7.74 | 351930 | 11.08 | 323155 | 13.29 | 101530 | 3.51 |
| ZZZZZZ | 466561 | 6.55 | 654800 | 7.74 | 295508 | 11.08 | 280978 | 13.29 | 72366 | 3.50 |
| ZZZZZZ | 483012 | 6.55 | 729901 | 7.74 | 348623 | 11.08 | 322674 | 13.29 | 98209 | 3.51 |
| MC29805-1 | 495269 | 6.55 | 780550 | 7.73 | 337890 | 11.08 | 312465 | 13.29 | 299785[c] | 3.52 |
| MC29804-1MS | 466834 | 6.55 | 672984 | 7.73 | 309801 | 11.07 | 311365 | 13.29 | 74317 | 3.49 |
| MC29804-1MSD | 457428 | 6.54 | 664297 | 7.73 | 303825 | 11.07 | 302010 | 13.29 | 75323 | 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.
(c) Outside control limits. Target analytes not associated with this internal standard.

# Volatile Internal Standard Area Summary



**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSV1134-CC1058 | **Injection Date:** | 04/28/14 |
| **Lab File ID:** | V30338.D | **Injection Time:** | 08:24 |
| **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 | 451145 | 6.55 | 645132 | 7.73 | 304199 | 11.08 | 308400 | 13.29 | 65290 | 3.50 |
| Upper Limit [a] | 902290 | 7.05 | 1290264 | 8.23 | 608398 | 11.58 | 616800 | 13.79 | 130580 | 4.00 |
| Lower Limit [b] | 225573 | 6.05 | 322566 | 7.23 | 152100 | 10.58 | 154200 | 12.79 | 32645 | 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** |
| MSV1134-BS | 427928 | 6.55 | 631318 | 7.73 | 294068 | 11.07 | 298098 | 13.29 | 63821 | 3.50 |
| MSV1134-MB | 293873 | 6.55 | 464130 | 7.73 | 232355 | 11.07 | 209249 | 13.29 | 51229 | 3.49 |
| MC29804-4 | 298946 | 6.55 | 477952 | 7.73 | 234283 | 11.08 | 210254 | 13.29 | 48069 | 3.50 |
| ZZZZZZ | 276705 | 6.55 | 444177 | 7.73 | 220792 | 11.07 | 199927 | 13.29 | 48241 | 3.49 |
| ZZZZZZ | 334791 | 6.54 | 429888 | 7.73 | 218507 | 11.07 | 201133 | 13.29 | 55334 | 3.49 |
| ZZZZZZ | 259658 | 6.55 | 421448 | 7.73 | 210502 | 11.07 | 196070 | 13.29 | 46646 | 3.49 |
| ZZZZZZ | 249672 | 6.55 | 402272 | 7.73 | 207214 | 11.08 | 189836 | 13.29 | 46277 | 3.50 |
| ZZZZZZ | 235362 | 6.55 | 380660 | 7.73 | 201348 | 11.08 | 184015 | 13.29 | 42749 | 3.50 |
| ZZZZZZ | 242045 | 6.55 | 395994 | 7.74 | 206193 | 11.08 | 186529 | 13.29 | 41513 | 3.50 |
| ZZZZZZ | 279172 | 6.55 | 421669 | 7.73 | 214385 | 11.08 | 194105 | 13.29 | 49317 | 3.49 |
| MC29805-3 | 285195 | 6.55 | 428741 | 7.74 | 209051 | 11.08 | 215492 | 13.29 | 49929 | 3.50 |
| ZZZZZZ | 342370 | 6.55 | 481767 | 7.74 | 230407 | 11.08 | 227083 | 13.29 | 55268 | 3.50 |
| MC29804-4MS | 378681 | 6.55 | 546257 | 7.74 | 261198 | 11.08 | 274959 | 13.29 | 59759 | 3.50 |
| MC29804-4MSD | 367888 | 6.55 | 526630 | 7.73 | 245918 | 11.07 | 253019 | 13.29 | 59772 | 3.49 |
| ZZZZZZ | 337281 | 6.55 | 495633 | 7.73 | 230413 | 11.07 | 240731 | 13.29 | 60184 | 3.50 |
| MC29805-1 | 333343 | 6.55 | 492513 | 7.73 | 235137 | 11.07 | 230608 | 13.29 | 62662 | 3.50 |
| MC29805-4 | 500025 | 6.55 | 932722 | 7.74 | 366171 | 11.07 | 397906 | 13.29 | 235599[c] | 3.52 |
| MC29805-5 | 592524 | 6.62 | 1246305 | 7.76 | 412769 | 11.07 | 381283 | 13.29 | 141764[c] | 3.52 |
| MC29805-6 | 687389 | 6.71 | 1376465[d] | 7.79 | 472792 | 11.08 | 452905 | 13.29 | 148040[d] | 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.
(d) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

# Volatile Internal Standard Area Summary



**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSV1136-CC1058 | **Injection Date:** | 04/29/14 |
| **Lab File ID:** | V30404.D | **Injection Time:** | 13:15 |
| **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 | 371905 | 6.52 | 519113 | 7.70 | 255894 | 11.06 | 268106 | 13.27 | 60520 | 3.47 |
| Upper Limit [a] | 743810 | 7.02 | 1038226 | 8.20 | 511788 | 11.56 | 536212 | 13.77 | 121040 | 3.97 |
| Lower Limit [b] | 185953 | 6.02 | 259557 | 7.20 | 127947 | 10.56 | 134053 | 12.77 | 30260 | 2.97 |
| **Lab Sample ID** | **IS 1 AREA** | **RT** | **IS 2 AREA** | **RT** | **IS 3 AREA** | **RT** | **IS 4 AREA** | **RT** | **IS 5 AREA** | **RT** |
| MSV1136-BS | 356194 | 6.51 | 507718 | 7.70 | 251577 | 11.06 | 267917 | 13.27 | 62169 | 3.47 |
| MSV1136-MB | 263092 | 6.52 | 394718 | 7.71 | 207310 | 11.06 | 191423 | 13.27 | 47281 | 3.47 |
| MC29805-5 | 254868 | 6.51 | 398935 | 7.70 | 198846 | 11.06 | 186971 | 13.27 | 43273 | 3.46 |
| MC29805-6 | 254104 | 6.52 | 410271 | 7.71 | 202677 | 11.06 | 191767 | 13.27 | 43509 | 3.47 |
| MC29805-4 | 285434 | 6.52 | 408973 | 7.70 | 206061 | 11.06 | 207196 | 13.27 | 50117 | 3.47 |
| MC29805-6 | 226201 | 6.51 | 367153 | 7.70 | 185593 | 11.05 | 172780 | 13.27 | 40975 | 3.46 |
| ZZZZZZ | 231864 | 6.51 | 356707 | 7.70 | 198434 | 11.06 | 218185 | 13.27 | 44272 | 3.46 |
| ZZZZZZ | 270401 | 6.51 | 411764 | 7.70 | 214468 | 11.05 | 209507 | 13.27 | 40362 | 3.46 |
| ZZZZZZ | 315087 | 6.52 | 471248 | 7.70 | 237932 | 11.05 | 248213 | 13.27 | 47119 | 3.47 |
| ZZZZZZ | 397112 | 6.51 | 588341 | 7.70 | 279953 | 11.05 | 283484 | 13.27 | 59229 | 3.47 |
| MC30021-1MS | 412258 | 6.51 | 583754 | 7.70 | 283946 | 11.05 | 285272 | 13.27 | 63503 | 3.47 |
| MC30021-1MSD | 442394 | 6.51 | 632837 | 7.70 | 298125 | 11.05 | 305609 | 13.27 | 70758 | 3.47 |
| ZZZZZZ | 326421 | 6.51 | 489892 | 7.70 | 240103 | 11.05 | 234773 | 13.27 | 58756 | 3.46 |
| ZZZZZZ | 316804 | 6.51 | 478035 | 7.70 | 235851 | 11.05 | 223816 | 13.27 | 55471 | 3.46 |
| MC30021-1 | 305849 | 6.51 | 460409 | 7.70 | 229155 | 11.05 | 215561 | 13.27 | 55760 | 3.46 |
| ZZZZZZ | 314596 | 6.52 | 479649 | 7.70 | 240267 | 11.05 | 228443 | 13.27 | 49797 | 3.47 |
| ZZZZZZ | 267789 | 6.51 | 416543 | 7.70 | 209818 | 11.05 | 194614 | 13.27 | 40809 | 3.47 |

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:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 |
|---|---|---|---|---|
| MC29805-1 | V30356.D | 89 | 88 | 89 |
| MC29805-1 | V30329.D | 77 | 86 | 94 |
| MC29805-2 | V30314.D | 96 | 90 | 89 |
| MC29805-3 | V30351.D | 94 | 94 | 86 |
| MC29805-4 | V30412.D | 86 | 91 | 92 |
| MC29805-4 | V30357.D | 79 | 80 | 96 |
| MC29805-5 | V30410.D | 94 | 89 | 89 |
| MC29805-5 | V30358.D | 72 | 75 | 93 |
| MC29805-6 | V30413.D | 100 | 89 | 90 |
| MC29805-6 | V30411.D | 96 | 87 | 92 |
| MC29805-6 | V30359.D | 66* [a] | 78 | 90 |
| MC29805-7 | V30312.D | 96 | 90 | 89 |
| MC29804-1MS | V30331.D | 80 | 91 | 92 |
| MC29804-1MSD | V30332.D | 79 | 90 | 91 |
| MC29804-4MS | V30353.D | 86 | 93 | 90 |
| MC29804-4MSD | V30354.D | 84 | 91 | 91 |
| MC30021-1MS | V30420.D | 79 | 92 | 92 |
| MC30021-1MSD | V30421.D | 78 | 92 | 92 |
| MSV1133-BS | V30306.D | 81 | 91 | 89 |
| MSV1133-MB | V30310.D | 92 | 89 | 89 |
| MSV1134-BS | V30339.D | 84 | 91 | 91 |
| MSV1134-MB | V30342.D | 99 | 90 | 91 |
| MSV1136-BS | V30405.D | 83 | 93 | 91 |
| MSV1136-MB | V30408.D | 92 | 92 | 91 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = Dibromofluoromethane | 70-130% |
| S2 = Toluene-D8 | 70-130% |
| S3 = 4-Bromofluorobenzene | 70-130% |

(a) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

## 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:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37647-MB | R38301.D | 1 | 04/21/14 | WK | 04/17/14 | OP37647 | MSR1412 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29805-1, MC29805-2, MC29805-3, MC29805-4, MC29805-5, MC29805-6

| 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 | 0.31 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 10 | 0.83 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 10 | 0.40 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 10 | 0.56 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 20 | 2.5 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 10 | 0.23 | ug/l | |
| | 3&4-Methylphenol | ND | 10 | 0.47 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 10 | 2.9 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 20 | 0.53 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 10 | 1.1 | ug/l | |
| 108-95-2 | Phenol | ND | 5.0 | 0.30 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 10 | 0.37 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 10 | 0.18 | ug/l | |
| 62-53-3 | Aniline | ND | 10 | 0.64 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.0 | 0.47 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.0 | 0.53 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 10 | 2.3 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.0 | 0.31 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 10 | 0.56 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.0 | 0.29 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.0 | 0.35 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.0 | 0.33 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.0 | 0.25 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.0 | 0.24 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 10 | 0.46 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 10 | 0.30 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.0 | 0.27 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.0 | 0.26 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.83 | 5.0 | 0.17 | ug/l | J |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.0 | 0.28 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.0 | 0.20 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.0 | 0.34 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 1.4 | 2.0 | 0.33 | ug/l | J |
| 118-74-1 | Hexachlorobenzene | ND | 5.0 | 0.29 | ug/l | |

# Method Blank Summary

**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37647-MB | R38301.D | 1 | 04/21/14 | WK | 04/17/14 | OP37647 | MSR1412 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29805-1, MC29805-2, MC29805-3, MC29805-4, MC29805-5, MC29805-6

| 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 | 0.30 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.0 | 0.45 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 0.40 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 1.4 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 2.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.0 | 0.39 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.0 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.0 | 0.40 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.0 | 0.19 | ug/l | |
| 110-86-1 | Pyridine | ND | 10 | 0.52 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 38% | 15-110% |
| 4165-62-2 | Phenol-d5 | 23% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 75% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 64% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 66% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 91% | 30-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile | | 0 | ug/l | |

# Method Blank Summary



**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37648-MB | I88660.D | 1 | 04/21/14 | MR | 04/17/14 | OP37648 | MSI3302 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D BY SIM

MC29805-1, MC29805-2, MC29805-3, MC29805-4, MC29805-5, MC29805-6



| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | ND | 0.10 | 0.069 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.10 | 0.050 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.10 | 0.092 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.050 | 0.020 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.10 | 0.029 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.050 | 0.032 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.10 | 0.027 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.10 | 0.039 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.10 | 0.024 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.10 | 0.032 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.10 | 0.041 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.10 | 0.099 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.10 | 0.031 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.20 | 0.050 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.20 | 0.074 | ug/l | |
| 85-01-8 | Phenanthrene | 0.031 | 0.050 | 0.013 | ug/l | J |
| 129-00-0 | Pyrene | ND | 0.10 | 0.038 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 65% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 59% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 86% | 30-130% |

# Blank Spike Summary



**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37647-BS | R38302.D | 1 | 04/21/14 | WK | 04/17/14 | OP37647 | MSR1412 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29805-1, MC29805-2, MC29805-3, MC29805-4, MC29805-5, MC29805-6

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | 50 | 15.4 | 31 | 30-130 |
| 95-57-8 | 2-Chlorophenol | 50 | 32.1 | 64 | 30-130 |
| 59-50-7 | 4-Chloro-3-methyl phenol | 50 | 34.2 | 68 | 30-130 |
| 120-83-2 | 2,4-Dichlorophenol | 50 | 35.3 | 71 | 30-130 |
| 105-67-9 | 2,4-Dimethylphenol | 50 | 12.7 | 25* [a] | 30-130 |
| 51-28-5 | 2,4-Dinitrophenol | 50 | 42.8 | 86 | 30-130 |
| 534-52-1 | 4,6-Dinitro-o-cresol | 50 | 47.3 | 95 | 30-130 |
| 95-48-7 | 2-Methylphenol | 50 | 26.7 | 53 | 30-130 |
| | 3&4-Methylphenol | 100 | 46.9 | 47 | 30-130 |
| 88-75-5 | 2-Nitrophenol | 50 | 35.7 | 71 | 30-130 |
| 100-02-7 | 4-Nitrophenol | 50 | 12.8 | 26* [a] | 30-130 |
| 87-86-5 | Pentachlorophenol | 50 | 41.0 | 82 | 30-130 |
| 108-95-2 | Phenol | 50 | 11.7 | 23* [a] | 30-130 |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | 38.6 | 77 | 30-130 |
| 88-06-2 | 2,4,6-Trichlorophenol | 50 | 38.4 | 77 | 30-130 |
| 62-53-3 | Aniline | 50 | 23.4 | 47 | 40-140 |
| 101-55-3 | 4-Bromophenyl phenyl ether | 50 | 42.6 | 85 | 40-140 |
| 85-68-7 | Butyl benzyl phthalate | 50 | 41.9 | 84 | 40-140 |
| 100-51-6 | Benzyl Alcohol | 50 | 28.8 | 58 | 40-140 |
| 91-58-7 | 2-Chloronaphthalene | 50 | 35.8 | 72 | 40-140 |
| 106-47-8 | 4-Chloroaniline | 50 | 29.3 | 59 | 40-140 |
| 111-91-1 | bis(2-Chloroethoxy)methane | 50 | 33.4 | 67 | 40-140 |
| 111-44-4 | bis(2-Chloroethyl)ether | 50 | 32.1 | 64 | 40-140 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 50 | 39.9 | 80 | 40-140 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 50 | 37.7 | 75 | 40-140 |
| 122-66-7 | 1,2-Diphenylhydrazine | 50 | 35.9 | 72 | 40-140 |
| 121-14-2 | 2,4-Dinitrotoluene | 50 | 42.1 | 84 | 40-140 |
| 606-20-2 | 2,6-Dinitrotoluene | 50 | 40.5 | 81 | 40-140 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 50 | 36.6 | 73 | 40-140 |
| 132-64-9 | Dibenzofuran | 50 | 35.1 | 70 | 40-140 |
| 84-74-2 | Di-n-butyl phthalate | 50 | 40.5 | 81 | 40-140 |
| 117-84-0 | Di-n-octyl phthalate | 50 | 43.0 | 86 | 40-140 |
| 84-66-2 | Diethyl phthalate | 50 | 40.4 | 81 | 40-140 |
| 131-11-3 | Dimethyl phthalate | 50 | 41.1 | 82 | 40-140 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 50 | 41.8 | 84 | 40-140 |
| 118-74-1 | Hexachlorobenzene | 50 | 42.5 | 85 | 40-140 |

* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37647-BS | R38302.D | 1 | 04/21/14 | WK | 04/17/14 | OP37647 | MSR1412 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29805-1, MC29805-2, MC29805-3, MC29805-4, MC29805-5, MC29805-6

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 77-47-4 | Hexachlorocyclopentadiene | 50 | 13.5 | 27* [a] | 40-140 |
| 67-72-1 | Hexachloroethane | 50 | 19.8 | 40 | 40-140 |
| 78-59-1 | Isophorone | 50 | 31.0 | 62 | 40-140 |
| 88-74-4 | 2-Nitroaniline | 50 | 39.8 | 80 | 40-140 |
| 99-09-2 | 3-Nitroaniline | 50 | 36.1 | 72 | 40-140 |
| 100-01-6 | 4-Nitroaniline | 50 | 33.8 | 68 | 40-140 |
| 98-95-3 | Nitrobenzene | 50 | 31.7 | 63 | 40-140 |
| 62-75-9 | n-Nitrosodimethylamine | 50 | 12.5 | 25* [a] | 40-140 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 50 | 18.7 | 37* [a] | 40-140 |
| 86-30-6 | N-Nitrosodiphenylamine | 50 | 36.5 | 73 | 40-140 |
| 110-86-1 | Pyridine | 50 | 18.8 | 38* [a] | 40-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 37% | 15-110% |
| 4165-62-2 | Phenol-d5 | 23% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 85% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 64% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 68% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 86% | 30-130% |

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37648-BS | I88661.D | 1 | 04/21/14 | MR | 04/17/14 | OP37648 | MSI3302 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D BY SIM

MC29805-1, MC29805-2, MC29805-3, MC29805-4, MC29805-5, MC29805-6

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 50 | 32.6 | 65 | 40-140 |
| 208-96-8 | Acenaphthylene | 50 | 28.0 | 56 | 40-140 |
| 120-12-7 | Anthracene | 50 | 32.5 | 65 | 40-140 |
| 56-55-3 | Benzo(a)anthracene | 50 | 38.7 | 77 | 40-140 |
| 50-32-8 | Benzo(a)pyrene | 50 | 34.7 | 69 | 40-140 |
| 205-99-2 | Benzo(b)fluoranthene | 50 | 40.6 | 81 | 40-140 |
| 191-24-2 | Benzo(g,h,i)perylene | 50 | 41.3 | 83 | 40-140 |
| 207-08-9 | Benzo(k)fluoranthene | 50 | 38.3 | 77 | 40-140 |
| 218-01-9 | Chrysene | 50 | 37.2 | 74 | 40-140 |
| 53-70-3 | Dibenzo(a,h)anthracene | 50 | 44.2 | 88 | 40-140 |
| 206-44-0 | Fluoranthene | 50 | 38.2 | 76 | 40-140 |
| 86-73-7 | Fluorene | 50 | 35.9 | 72 | 40-140 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 50 | 42.5 | 85 | 40-140 |
| 90-12-0 | 1-Methylnaphthalene | 50 | 30.8 | 62 | 40-140 |
| 91-57-6 | 2-Methylnaphthalene | 50 | 29.7 | 59 | 40-140 |
| 85-01-8 | Phenanthrene | 50 | 35.3 | 71 | 40-140 |
| 129-00-0 | Pyrene | 50 | 38.2 | 76 | 40-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 66% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 61% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 83% | 30-130% |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37647-MS | R38303.D | 1 | 04/21/14 | WK | 04/17/14 | OP37647 | MSR1412 |
| OP37647-MSD | R38304.D | 1 | 04/21/14 | WK | 04/17/14 | OP37647 | MSR1412 |
| MC29400-14 | R38305.D | 1 | 04/21/14 | WK | 04/17/14 | OP37647 | MSR1412 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29805-1, MC29805-2, MC29805-3, MC29805-4, MC29805-5, MC29805-6

| CAS No. | Compound | MC29400-14 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 | 17.7 | 35 | 50 | 18.0 | 36 | 2 | 30-130/20 |
| 95-57-8 | 2-Chlorophenol | ND | | 50 | 36.8 | 74 | 50 | 37.1 | 74 | 1 | 30-130/20 |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | | 50 | 36.0 | 72 | 50 | 37.4 | 75 | 4 | 30-130/20 |
| 120-83-2 | 2,4-Dichlorophenol | ND | | 50 | 39.7 | 79 | 50 | 41.1 | 82 | 3 | 30-130/20 |
| 105-67-9 | 2,4-Dimethylphenol | ND | | 50 | 8.5 | 17* [a] | 50 | 17.5 | 35 | 69* [b] | 30-130/20 |
| 51-28-5 | 2,4-Dinitrophenol | ND | | 50 | 45.5 | 91 | 50 | 46.8 | 94 | 3 | 30-130/20 |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | | 50 | 50.0 | 100 | 50 | 50.1 | 100 | 0 | 30-130/20 |
| 95-48-7 | 2-Methylphenol | ND | | 50 | 29.1 | 58 | 50 | 29.3 | 59 | 1 | 30-130/20 |
| | 3&4-Methylphenol | ND | | 100 | 52.8 | 53 | 100 | 57.0 | 57 | 8 | 30-130/20 |
| 88-75-5 | 2-Nitrophenol | ND | | 50 | 40.5 | 81 | 50 | 40.9 | 82 | 1 | 30-130/20 |
| 100-02-7 | 4-Nitrophenol | ND | | 50 | 14.5 | 29* [a] | 50 | 14.9 | 30 | 3 | 30-130/20 |
| 87-86-5 | Pentachlorophenol | ND | | 50 | 44.0 | 88 | 50 | 43.7 | 87 | 1 | 30-130/20 |
| 108-95-2 | Phenol | ND | | 50 | 15.3 | 31 | 50 | 15.2 | 30 | 1 | 30-130/20 |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | | 50 | 42.3 | 85 | 50 | 44.0 | 88 | 4 | 30-130/20 |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | | 50 | 42.0 | 84 | 50 | 43.9 | 88 | 4 | 30-130/20 |
| 62-53-3 | Aniline | ND | | 50 | 22.9 | 46 | 50 | 24.8 | 50 | 8 | 40-140/20 |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | | 50 | 47.9 | 96 | 50 | 47.0 | 94 | 2 | 40-140/20 |
| 85-68-7 | Butyl benzyl phthalate | ND | | 50 | 46.0 | 92 | 50 | 45.2 | 90 | 2 | 40-140/20 |
| 100-51-6 | Benzyl Alcohol | ND | | 50 | 31.4 | 63 | 50 | 31.9 | 64 | 2 | 40-140/20 |
| 91-58-7 | 2-Chloronaphthalene | ND | | 50 | 42.5 | 85 | 50 | 44.0 | 88 | 3 | 40-140/20 |
| 106-47-8 | 4-Chloroaniline | ND | | 50 | 30.0 | 60 | 50 | 32.3 | 65 | 7 | 40-140/20 |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | | 50 | 37.7 | 75 | 50 | 38.1 | 76 | 1 | 40-140/20 |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | | 50 | 38.2 | 76 | 50 | 36.3 | 73 | 5 | 40-140/20 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | | 50 | 46.8 | 94 | 50 | 45.4 | 91 | 3 | 40-140/20 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | | 50 | 42.6 | 85 | 50 | 43.5 | 87 | 2 | 40-140/20 |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | | 50 | 40.3 | 81 | 50 | 39.1 | 78 | 3 | 40-140/20 |
| 121-14-2 | 2,4-Dinitrotoluene | ND | | 50 | 46.5 | 93 | 50 | 46.3 | 93 | 0 | 40-140/20 |
| 606-20-2 | 2,6-Dinitrotoluene | ND | | 50 | 44.8 | 90 | 50 | 44.9 | 90 | 0 | 40-140/20 |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | | 50 | 45.5 | 91 | 50 | 49.2 | 98 | 8 | 40-140/20 |
| 132-64-9 | Dibenzofuran | ND | | 50 | 40.2 | 80 | 50 | 41.1 | 82 | 2 | 40-140/20 |
| 84-74-2 | Di-n-butyl phthalate | 0.86 | JB | 50 | 44.9 | 88 | 50 | 43.4 | 85 | 3 | 40-140/20 |
| 117-84-0 | Di-n-octyl phthalate | ND | | 50 | 48.4 | 97 | 50 | 47.2 | 94 | 3 | 40-140/20 |
| 84-66-2 | Diethyl phthalate | ND | | 50 | 44.1 | 88 | 50 | 43.7 | 87 | 1 | 40-140/20 |
| 131-11-3 | Dimethyl phthalate | ND | | 50 | 44.4 | 89 | 50 | 44.7 | 89 | 1 | 40-140/20 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | | 50 | 45.9 | 92 | 50 | 45.8 | 92 | 0 | 40-140/20 |
| 118-74-1 | Hexachlorobenzene | ND | | 50 | 46.4 | 93 | 50 | 46.1 | 92 | 1 | 40-140/20 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37647-MS | R38303.D | 1 | 04/21/14 | WK | 04/17/14 | OP37647 | MSR1412 |
| OP37647-MSD | R38304.D | 1 | 04/21/14 | WK | 04/17/14 | OP37647 | MSR1412 |
| MC29400-14 | R38305.D | 1 | 04/21/14 | WK | 04/17/14 | OP37647 | MSR1412 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29805-1, MC29805-2, MC29805-3, MC29805-4, MC29805-5, MC29805-6

| CAS No. | Compound | MC29400-14 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 | 23.2 | 46 | 50 | 24.2 | 48 | 4 | 40-140/20 |
| 67-72-1 | Hexachloroethane | ND | | 50 | 30.2 | 60 | 50 | 28.4 | 57 | 6 | 40-140/20 |
| 78-59-1 | Isophorone | ND | | 50 | 35.2 | 70 | 50 | 36.0 | 72 | 2 | 40-140/20 |
| 88-74-4 | 2-Nitroaniline | ND | | 50 | 43.1 | 86 | 50 | 43.8 | 88 | 2 | 40-140/20 |
| 99-09-2 | 3-Nitroaniline | ND | | 50 | 35.3 | 71 | 50 | 35.9 | 72 | 2 | 40-140/20 |
| 100-01-6 | 4-Nitroaniline | ND | | 50 | 36.7 | 73 | 50 | 38.4 | 77 | 5 | 40-140/20 |
| 98-95-3 | Nitrobenzene | ND | | 50 | 36.9 | 74 | 50 | 36.6 | 73 | 1 | 40-140/20 |
| 62-75-9 | n-Nitrosodimethylamine | ND | | 50 | 19.0 | 38* [a] | 50 | 20.0 | 40 | 5 | 40-140/20 |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | | 50 | 30.1 | 60 | 50 | 32.1 | 64 | 6 | 40-140/20 |
| 86-30-6 | N-Nitrosodiphenylamine | ND | | 50 | 41.4 | 83 | 50 | 41.4 | 83 | 0 | 40-140/20 |
| 110-86-1 | Pyridine | ND | | 50 | 20.1 | 40 | 50 | 21.0 | 42 | 4 | 40-140/20 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29400-14 | Limits |
|---|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 46% | 47% | 42% | 15-110% |
| 4165-62-2 | Phenol-d5 | 28% | 28% | 26% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 90% | 90% | 81% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 74% | 75% | 68% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 78% | 82% | 69% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 90% | 91% | 93% | 30-130% |

(a) Outside control limits. Blank Spike meets program technical requirements.
(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:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37648-MS | I88662.D | 1 | 04/21/14 | MR | 04/17/14 | OP37648 | MSI3302 |
| OP37648-MSD | I88663.D | 1 | 04/21/14 | MR | 04/17/14 | OP37648 | MSI3302 |
| MC29400-17 | I88664.D | 1 | 04/21/14 | MR | 04/17/14 | OP37648 | MSI3302 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D BY SIM

MC29805-1, MC29805-2, MC29805-3, MC29805-4, MC29805-5, MC29805-6



| CAS No. | Compound | MC29400-17 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 | 37.5 | 75 | 1 | 40-140/20 |
| 208-96-8 | Acenaphthylene | ND | | 50 | 32.7 | 65 | 50 | 33.4 | 67 | 2 | 40-140/20 |
| 120-12-7 | Anthracene | ND | | 50 | 36.8 | 74 | 50 | 36.9 | 74 | 0 | 40-140/20 |
| 56-55-3 | Benzo(a)anthracene | ND | | 50 | 42.4 | 85 | 50 | 42.1 | 84 | 1 | 40-140/20 |
| 50-32-8 | Benzo(a)pyrene | ND | | 50 | 38.9 | 78 | 50 | 39.0 | 78 | 0 | 40-140/20 |
| 205-99-2 | Benzo(b)fluoranthene | ND | | 50 | 44.1 | 88 | 50 | 42.4 | 85 | 4 | 40-140/20 |
| 191-24-2 | Benzo(g,h,i)perylene | ND | | 50 | 45.6 | 91 | 50 | 44.9 | 90 | 2 | 40-140/20 |
| 207-08-9 | Benzo(k)fluoranthene | ND | | 50 | 42.1 | 84 | 50 | 43.0 | 86 | 2 | 40-140/20 |
| 218-01-9 | Chrysene | ND | | 50 | 40.7 | 81 | 50 | 40.1 | 80 | 1 | 40-140/20 |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | | 50 | 48.5 | 97 | 50 | 47.7 | 95 | 2 | 40-140/20 |
| 206-44-0 | Fluoranthene | ND | | 50 | 43.4 | 87 | 50 | 42.6 | 85 | 2 | 40-140/20 |
| 86-73-7 | Fluorene | ND | | 50 | 40.2 | 80 | 50 | 39.8 | 80 | 1 | 40-140/20 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | | 50 | 46.7 | 93 | 50 | 46.0 | 92 | 2 | 40-140/20 |
| 90-12-0 | 1-Methylnaphthalene | ND | | 50 | 35.2 | 70 | 50 | 35.5 | 71 | 1 | 40-140/20 |
| 91-57-6 | 2-Methylnaphthalene | ND | | 50 | 34.2 | 68 | 50 | 33.1 | 66 | 3 | 40-140/20 |
| 85-01-8 | Phenanthrene | ND | | 50 | 38.7 | 77 | 50 | 37.9 | 76 | 2 | 40-140/20 |
| 129-00-0 | Pyrene | ND | | 50 | 42.2 | 84 | 50 | 41.4 | 83 | 2 | 40-140/20 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29400-17 | Limits |
|---|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 74% | 74% | 68% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 70% | 73% | 63% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 91% | 92% | 92% | 30-130% |

* = Outside of Control Limits.

# Semivolatile Internal Standard Area Summary



**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSI3302-CC3238 | **Injection Date:** | 04/21/14 |
| **Lab File ID:** | I88659.D | **Injection Time:** | 08:26 |
| **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 | 263950 | 3.98 | 636074 | 5.02 | 373416 | 6.55 | 634180 | 7.92 | 468021 | 10.70 | 1172823 | 12.17 |
| Upper Limit [a] | 527900 | 4.48 | 1272148 | 5.52 | 746832 | 7.05 | 1268360 | 8.42 | 936042 | 11.20 | 2345646 | 12.67 |
| Lower Limit [b] | 131975 | 3.48 | 318037 | 4.52 | 186708 | 6.05 | 317090 | 7.42 | 234011 | 10.20 | 586412 | 11.67 |
| **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** |
| OP37648-MB | 290282 | 3.98 | 693913 | 5.02 | 411859 | 6.55 | 694989 | 7.92 | 509450 | 10.70 | 1290264 | 12.17 |
| OP37648-BS | 282838 | 3.98 | 671904 | 5.02 | 405580 | 6.55 | 685159 | 7.93 | 502616 | 10.70 | 1222689 | 12.17 |
| OP37648-MS | 290171 | 3.98 | 679188 | 5.02 | 400181 | 6.55 | 669890 | 7.93 | 485773 | 10.70 | 1172213 | 12.17 |
| OP37648-MSD | 315955 | 3.98 | 753203 | 5.03 | 441059 | 6.55 | 732184 | 7.93 | 534133 | 10.70 | 1289458 | 12.17 |
| MC29400-17 | 300882 | 3.98 | 704611 | 5.02 | 410175 | 6.55 | 689527 | 7.92 | 499349 | 10.70 | 1234238 | 12.17 |
| ZZZZZZ | 283257 | 3.98 | 675586 | 5.02 | 394418 | 6.55 | 663015 | 7.92 | 481495 | 10.70 | 1194883 | 12.17 |
| ZZZZZZ | 307502 | 3.98 | 732280 | 5.02 | 425406 | 6.55 | 720365 | 7.92 | 520213 | 10.70 | 1283099 | 12.17 |
| ZZZZZZ | 309134 | 3.98 | 738424 | 5.02 | 428636 | 6.55 | 728143 | 7.92 | 521921 | 10.70 | 1285107 | 12.17 |
| MC29805-1 | 296326 | 3.98 | 716771 | 5.02 | 412996 | 6.55 | 700522 | 7.92 | 500652 | 10.70 | 1243518 | 12.17 |
| MC29805-2 | 307435 | 3.98 | 728236 | 5.02 | 420119 | 6.55 | 689158 | 7.93 | 500730 | 10.70 | 1235010 | 12.17 |
| MC29805-3 | 285164 | 3.98 | 673179 | 5.02 | 391638 | 6.55 | 658134 | 7.92 | 467596 | 10.70 | 1122121 | 12.17 |
| MC29805-4 | 325839 | 3.98 | 764045 | 5.03 | 686011 | 6.56 | 745801 | 7.94 | 522632 | 10.70 | 1195365 | 12.17 |
| MC29805-5 | 307140 | 3.98 | 711783 | 5.02 | 418710 | 6.55 | 706110 | 7.92 | 523132 | 10.70 | 1259792 | 12.17 |
| MC29805-6 | 288660 | 3.98 | 689395 | 5.02 | 402156 | 6.55 | 677247 | 7.92 | 484242 | 10.70 | 1183456 | 12.17 |
| ZZZZZZ | 295375 | 3.98 | 695101 | 5.02 | 412096 | 6.55 | 686113 | 7.92 | 506340 | 10.70 | 1235366 | 12.17 |

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:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSR1412-CC1410 | **Injection Date:** | 04/21/14 |
| **Lab File ID:** | R38295.D | **Injection Time:** | 16:50 |
| **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 | 108969 | 5.39 | 390162 | 6.49 | 245323 | 8.02 | 417932 | 9.33 | 386213 | 11.92 | 336580 | 13.62 |
| Upper Limit [a] | 217938 | 5.89 | 780324 | 6.99 | 490646 | 8.52 | 835864 | 9.83 | 772426 | 12.42 | 673160 | 14.12 |
| Lower Limit [b] | 54485 | 4.89 | 195081 | 5.99 | 122662 | 7.52 | 208966 | 8.83 | 193107 | 11.42 | 168290 | 13.12 |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ZZZZZZ | 124878 | 5.39 | 454855 | 6.49 | 282716 | 8.02 | 489002 | 9.32 | 432077 | 11.92 | 350188 | 13.62 |
| ZZZZZZ | 124065 | 5.39 | 447101 | 6.49 | 275307 | 8.02 | 478695 | 9.33 | 432923 | 11.92 | 367604 | 13.63 |
| ZZZZZZ | 123473 | 5.39 | 445567 | 6.49 | 289388 | 8.02 | 477879 | 9.33 | 426917 | 11.92 | 361512 | 13.62 |
| ZZZZZZ | 116216 | 5.39 | 413020 | 6.49 | 261650 | 8.02 | 447856 | 9.32 | 403149 | 11.92 | 349531 | 13.62 |
| ZZZZZZ | 118266 | 5.39 | 426754 | 6.49 | 271135 | 8.02 | 465376 | 9.32 | 423384 | 11.92 | 363725 | 13.62 |
| OP37647-MB | 122623 | 5.39 | 443338 | 6.49 | 281856 | 8.02 | 487842 | 9.32 | 439716 | 11.92 | 381642 | 13.62 |
| OP37647-BS | 118453 | 5.39 | 422078 | 6.49 | 264494 | 8.02 | 457601 | 9.33 | 433499 | 11.92 | 368414 | 13.63 |
| OP37647-MS | 119478 | 5.39 | 426660 | 6.49 | 262517 | 8.02 | 449249 | 9.33 | 426668 | 11.92 | 356648 | 13.63 |
| OP37647-MSD | 133540 | 5.39 | 478225 | 6.49 | 291731 | 8.02 | 509000 | 9.33 | 475370 | 11.93 | 407670 | 13.63 |
| MC29400-14 | 121482 | 5.39 | 441238 | 6.49 | 281084 | 8.02 | 490707 | 9.32 | 452062 | 11.92 | 396999 | 13.62 |
| ZZZZZZ | 126570 | 5.39 | 455516 | 6.49 | 288399 | 8.02 | 499141 | 9.32 | 453741 | 11.92 | 393969 | 13.62 |
| ZZZZZZ | 126416 | 5.39 | 458855 | 6.49 | 287506 | 8.02 | 501009 | 9.32 | 458511 | 11.92 | 399962 | 13.62 |
| MC29805-1 | 118569 | 5.39 | 429228 | 6.49 | 273953 | 8.02 | 463907 | 9.33 | 427885 | 11.92 | 378382 | 13.62 |
| MC29805-2 | 122886 | 5.39 | 436465 | 6.49 | 279594 | 8.02 | 473367 | 9.33 | 437527 | 11.92 | 379873 | 13.62 |
| MC29805-3 | 111278 | 5.39 | 403294 | 6.49 | 258703 | 8.02 | 446860 | 9.32 | 412819 | 11.92 | 338100 | 13.62 |
| MC29805-4 | 127800 | 5.39 | 463391 | 6.49 | 463170 | 8.03 | 494540 | 9.34 | 459054 | 11.92 | 388057 | 13.63 |
| MC29805-5 | 131829 | 5.39 | 469904 | 6.49 | 289127 | 8.02 | 495694 | 9.32 | 460686 | 11.92 | 407632 | 13.62 |
| MC29805-6 | 126249 | 5.39 | 443885 | 6.49 | 284180 | 8.02 | 474828 | 9.33 | 437349 | 11.92 | 381788 | 13.62 |
| OP37644-MB | 110748 | 5.39 | 401099 | 6.49 | 249308 | 8.02 | 439802 | 9.32 | 410696 | 11.92 | 368819 | 13.62 |
| OP37644-BS | 105268 | 5.39 | 375575 | 6.49 | 235737 | 8.02 | 408798 | 9.33 | 388638 | 11.92 | 352997 | 13.62 |
| OP37644-MS | 105636 | 5.39 | 382859 | 6.49 | 245663 | 8.02 | 433762 | 9.33 | 418540 | 11.92 | 365411 | 13.63 |
| OP37644-MSD | 111306 | 5.39 | 399156 | 6.49 | 243195 | 8.02 | 417146 | 9.33 | 398248 | 11.92 | 352512 | 13.62 |
| MC29400-13 | 110456 | 5.39 | 400461 | 6.49 | 252634 | 8.02 | 443503 | 9.32 | 419708 | 11.92 | 365003 | 13.62 |
| ZZZZZZ | 107274 | 5.39 | 382153 | 6.49 | 244234 | 8.02 | 434929 | 9.32 | 409182 | 11.92 | 369770 | 13.62 |
| ZZZZZZ | 115152 | 5.39 | 410079 | 6.49 | 258296 | 8.02 | 453076 | 9.32 | 415034 | 11.92 | 377209 | 13.62 |

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.

# Semivolatile Surrogate Recovery Summary



**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 |
|---|---|---|---|---|---|---|---|
| MC29805-1 | R38309.D | 48 | 29 | 93 | 69 | 75 | 92 |
| MC29805-2 | R38310.D | 39 | 27 | 93 | 64 | 76 | 73 |
| MC29805-3 | R38311.D | 47 | 29 | 88 | 68 | 70 | 68 |
| MC29805-4 | R38312.D | 49 | 28 | 100 | 87 | 60 | 104 |
| MC29805-5 | R38313.D | 39 | 26 | 89 | 64 | 76 | 87 |
| MC29805-6 | R38314.D | 33 | 20 | 61 | 47 | 47 | 63 |
| OP37647-BS | R38302.D | 37 | 23 | 85 | 64 | 68 | 86 |
| OP37647-MB | R38301.D | 38 | 23 | 75 | 64 | 66 | 91 |
| OP37647-MS | R38303.D | 46 | 28 | 90 | 74 | 78 | 90 |
| OP37647-MSD | R38304.D | 47 | 28 | 90 | 75 | 82 | 91 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = 2-Fluorophenol | 15-110% |
| S2 = Phenol-d5 | 15-110% |
| S3 = 2,4,6-Tribromophenol | 15-110% |
| S4 = Nitrobenzene-d5 | 30-130% |
| S5 = 2-Fluorobiphenyl | 30-130% |
| S6 = Terphenyl-d14 | 30-130% |

# Semivolatile Surrogate Recovery Summary



**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 |
|---|---|---|---|---|
| MC29805-1 | I88668.D | 68 | 68 | 91 |
| MC29805-2 | I88669.D | 63 | 68 | 74 |
| MC29805-3 | I88670.D | 68 | 62 | 68 |
| MC29805-4 | I88671.D | 87 | 50 | 110 |
| MC29805-5 | I88672.D | 66 | 67 | 85 |
| MC29805-6 | I88673.D | 45 | 43 | 63 |
| OP37648-BS | I88661.D | 66 | 61 | 83 |
| OP37648-MB | I88660.D | 65 | 59 | 86 |
| OP37648-MS | I88662.D | 74 | 70 | 91 |
| OP37648-MSD | I88663.D | 74 | 73 | 92 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = Nitrobenzene-d5 | 30-130% |
| S2 = 2-Fluorobiphenyl | 30-130% |
| S3 = Terphenyl-d14 | 30-130% |

## 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:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37671-MB | BB55406.D | 1 | 04/21/14 | SZ | 04/18/14 | OP37671 | GBB3222 |

**The QC reported here applies to the following samples:** **Method:** SW846 8011

MC29805-1, MC29805-2, MC29805-3, MC29805-4, MC29805-5, MC29805-6, MC29805-8

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.015 | 0.0054 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.015 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 85% | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 87% | 36-173% |

# Blank Spike Summary



**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37671-BS | BB55407.D | 1 | 04/21/14 | SZ | 04/18/14 | OP37671 | GBB3222 |

**The QC reported here applies to the following samples:** **Method:** SW846 8011

MC29805-1, MC29805-2, MC29805-3, MC29805-4, MC29805-5, MC29805-6, MC29805-8

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 0.071 | 0.063 | 89 | 60-140 |
| 106-93-4 | 1,2-Dibromoethane | 0.071 | 0.064 | 90 | 60-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 93% | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 96% | 36-173% |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37671-MS | BB55408.D | 1 | 04/21/14 | SZ | 04/18/14 | OP37671 | GBB3222 |
| OP37671-MSD | BB55409.D | 1 | 04/21/14 | SZ | 04/18/14 | OP37671 | GBB3222 |
| MC29400-22 | BB55410.D | 1 | 04/21/14 | SZ | 04/18/14 | OP37671 | GBB3222 |

**The QC reported here applies to the following samples:** **Method:** SW846 8011

MC29805-1, MC29805-2, MC29805-3, MC29805-4, MC29805-5, MC29805-6, MC29805-8

| CAS No. | Compound | MC29400-22 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 | 0.065 | 92 | 0.071 | 0.082 | 115 | 23 | 64-141/29 |
| 106-93-4 | 1,2-Dibromoethane | ND | | 0.071 | 0.068 | 96 | 0.071 | 0.081 | 114 | 17 | 63-163/27 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29400-22 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 92% | 111% | 105% | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 95% | 115% | 109% | 36-173% |

* = Outside of Control Limits.

# Volatile Surrogate Recovery Summary



**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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] |
|---|---|---|---|
| MC29805-1 | BB55411.D | 70 | 82 |
| MC29805-2 | BB55412.D | 77 | 82 |
| MC29805-3 | BB55413.D | 82 | 85 |
| MC29805-4 | BB55414.D | 89 | 99 |
| MC29805-5 | BB55415.D | 62 | 83 |
| MC29805-6 | BB55417.D | 63 | 66 |
| MC29805-8 | BB55418.D | 83 | 88 |
| OP37671-BS | BB55407.D | 93 | 96 |
| OP37671-MB | BB55406.D | 85 | 87 |
| OP37671-MS | BB55408.D | 92 | 95 |
| OP37671-MSD | BB55409.D | 111 | 115 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = Bromofluorobenzene (S) | 36-173% |

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

# GC Surrogate Retention Time Summary



**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | GBB3222-ICC3222 | **Injection Date:** | 04/21/14 |
| **Lab File ID:** | BB55402.D | **Injection Time:** | 15:30 |
| **Instrument ID:** | GCBB | **Method:** | SW846 8011 |

| | S1 [a] RT | S1 [b] RT |
|---|---|---|
| Check Std | 4.30 | 4.60 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 [a] RT | S1 [b] RT |
|---|---|---|---|---|---|
| OP37671-MB | BB55406.D | 04/21/14 | 17:09 | 4.30 | 4.60 |
| OP37671-BS | BB55407.D | 04/21/14 | 17:34 | 4.30 | 4.60 |
| OP37671-MS | BB55408.D | 04/21/14 | 17:59 | 4.30 | 4.60 |
| OP37671-MSD | BB55409.D | 04/21/14 | 18:23 | 4.30 | 4.60 |
| MC29400-22 | BB55410.D | 04/21/14 | 18:48 | 4.30 | 4.60 |
| MC29805-1 | BB55411.D | 04/21/14 | 19:13 | 4.30 | 4.60 |
| MC29805-2 | BB55412.D | 04/21/14 | 19:38 | 4.30 | 4.60 |
| MC29805-3 | BB55413.D | 04/21/14 | 20:03 | 4.30 | 4.60 |
| MC29805-4 | BB55414.D | 04/21/14 | 20:29 | 4.30 | 4.60 |
| MC29805-5 | BB55415.D | 04/21/14 | 20:56 | 4.30 | 4.60 |

**Surrogate Compounds**

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

# GC Surrogate Retention Time Summary



**Job Number:** MC29805
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | GBB3222-CC3222 | **Injection Date:** | 04/21/14 |
| **Lab File ID:** | BB55416.D | **Injection Time:** | 21:25 |
| **Instrument ID:** | GCBB | **Method:** | SW846 8011 |

| | S1 [a] RT | S1 [b] RT |
|---|---|---|
| Check Std | 4.30 | 4.60 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 [a] RT | S1 [b] RT |
|---|---|---|---|---|---|
| MC29805-6 | BB55417.D | 04/21/14 | 21:54 | 4.30 | 4.60 |
| MC29805-8 | BB55418.D | 04/21/14 | 22:24 | 4.30 | 4.60 |
| ZZZZZZ | BB55419.D | 04/21/14 | 22:53 | 4.30 | 4.60 |
| ZZZZZZ | BB55420.D | 04/21/14 | 23:22 | 4.30 | 4.60 |
| ZZZZZZ | BB55421.D | 04/21/14 | 23:51 | 4.30 | 4.60 |
| ZZZZZZ | BB55422.D | 04/22/14 | 00:21 | 4.30 | 4.60 |
| ZZZZZZ | BB55423.D | 04/22/14 | 00:49 | 4.30 | 4.60 |
| ZZZZZZ | BB55424.D | 04/22/14 | 01:18 | 4.30 | 4.60 |
| ZZZZZZ | BB55425.D | 04/22/14 | 01:46 | 4.30 | 4.60 |
| ZZZZZZ | BB55426.D | 04/22/14 | 02:14 | 4.30 | 4.60 |

**Surrogate Compounds**

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

SGS ACCUTEST IS PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

*e-Hardcopy 2.0*
*Automated Report*

# Technical Report for

## Shell Oil

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana,

SGS Accutest Job Number: MC29833

Sampling Date: 04/16/14



Report to:

AECOM, INC.

Melissa.mansker@aecom.com

ATTN: Melissa Mansker

Total number of pages in report: 81

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.

H. (Brad) Madadian
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO (MA00136) MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.



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Unauthorized modification of this report is strictly prohibited.

SGS ACCUTEST

November 01, 2016

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

RE: SGS Accutest Job # MC29833

Dear Elizabeth Kunkel

As you are aware, SGS Accutest Inc. - Marlborough has been conducting an extensive review of data associated with some historical Gas Chromatography-Mass Spectroscopy volatiles analyses. As a result of this review it was determined that some revisions of the original test report for this job were needed. These corrections have been incorporated into the revised report.

Please be assured that corrective actions have been put in place to address this matter and prevent a recurrence.

We apologize for any inconvenience that this issue may have caused. Please don't hesitate to contact us if we can be of further assistance.

Sincerely,

**H. (Brad) Madadian**

Regional Laboratory Director
SGS Accutest Inc. - Marlborough

SGS ACCUTEST IS PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

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# Sample Summary

Shell Oil

Job No: MC29833

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample Number | Collected Date | Time | By | Received | Matrix Code | Type | Client Sample ID |
|---|---|---|---|---|---|---|---|
| MC29833-1 | 04/16/14 | 12:55 | DMMM | 04/17/14 | AQ | Ground Water | MW4-ROX-041614 |
| MC29833-2 | 04/16/14 | 13:50 | DMMM | 04/17/14 | AQ | Ground Water | MW8-ROX-041614 |
| MC29833-3 | 04/16/14 | 13:50 | DMMM | 04/17/14 | AQ | Ground Water | MW8-ROX-041614-DUP |
| MC29833-4 | 04/16/14 | 14:50 | DMMM | 04/17/14 | AQ | Ground Water | MW7-ROX-041614 |
| MC29833-5 | 04/16/14 | 00:00 | DMMM | 04/17/14 | AQ | Trip Blank Water | TB-ROX-041614-HCL |
| MC29833-6 | 04/16/14 | 00:00 | DMMM | 04/17/14 | AQ | Trip Blank Water | TB-ROX-041614-ST |

# SAMPLE DELIVERY GROUP CASE NARRATIVE



**Client:** She O **Job No** MC29833

**Site:** URSMOSTL:Roxana 2Q 4 GW/ 2 562973 03002 900 South Centra **Report Date** / /20 6 4:25:56 PM

4 Samp e(s), 2 Tr p B ank(s) and 0 F e d B ank(s) were co ected on 04/ 6/20 4 and were rece ved at SGS Accutest New Eng and on 04/ 7/20 4 proper y preserved, at 9 Deg C and ntact These Samp es rece ved a job number of MC29833 A st ng of the Laboratory Samp e ID, C ent Samp e ID and dates of co ect on are presented n the Resu ts Summary Sect on of th s repo t - Ch orohexane, Benzeneth o , D benz(a,h)acr d ne, Indene and Qu no ne were searched n the brary search and reported on y f detect ons were found

Except as noted be ow, a method spec f ed ca brat ons and qua ty contro performance cr ter a were met for th s job For more nformat on, p ease refer to QC summary pages

## Volatiles by GCMS By Method SW846 8260C

**Matrix:** AQ **Batch ID:** MSV 37

- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29904-2MS, MC29904-2MSD were used as the QC samp es nd cated
- A method b anks for th s batch meet method spec f c cr ter a
- Matr x Sp ke Recovery(s) for ,2,3-Tr ch oropropane, 2-Ch oroethy v ny ether, D ch orod f uoromethane are outs de contro m ts Outs de contro m ts due to poss b e matr x nterference
- Matr x Sp ke Dup cate Recovery(s) for ,2,3-Tr ch oropropane, 2-Ch oroethy v ny ether, D ch orod f uoromethane are outs de contro m ts Probab e cause due to matr x nte ference
- RPD(s) for MSD for ,2,3-Tr ch orobenzene, Naphtha ene are outs de contro m ts for samp e MC29904-2MSD H gh RPD due to poss b e matr x nterference and/or samp e non-homogene ty
- D ch orod f uoromethane, Ch oroethy v ny ether: Cont nu ng Ca brat on Ver f cat on outs de of acceptance cr ter a Samp e resu t may be b ased ow

## Extractables by GCMS By Method SW846 8270D

**Matrix:** AQ **Batch ID:** OP37657

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29400- 9MS, MC29400- 9MSD were used as the QC samp es nd cated
- Samp e(s) MC29833- , MC29833-2, MC29833-3, MC29833-4 have compound(s) reported w th a “B” qua f er, nd cat ng ana yte s found n the assoc ated method b ank
- B ank Sp ke Recove y(s) for Benzo c Ac d are outs de contro m ts
- Matr x Sp ke Recovery(s) for Benzo c Ac d are outs de contro m ts Probab e cause due to matr x nterference
- Matr x Sp ke Dup cate Recovery(s) for Benzo c Ac d, Pheno are outs de contro m ts Probab e cause due to matr x nterference

## Extractables by GCMS By Method SW846 8270D BY SIM

**Matrix:** AQ **Batch ID:** OP37658

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29400-20MS, MC29400-20MSD were used as the QC samp es nd cated
- Samp e(s) MC29833-2, MC29833-3, MC29833-4 have compound(s) reported w th a “B” qua f er, nd cat ng ana yte s found n the assoc ated method b ank

## Volatiles by GC By Method SW846 8011

**Matrix:** AQ **Batch ID:** OP3767

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29400-22MS, MC29400-22MSD were used as the QC samp es nd cated
- A method b anks for th s batch meet method spec f c cr ter a

SGS Accutest New Eng and ce t f es that a ana ys s were performed w th n method spec f cat on It s further recommended that th s report to be used n ts ent rety The Laborato y D rector for SGS Accutest New Eng and or ass gnee as ver f ed by the s gnature on the cover page has author zed the re ease of th s report(MC29833)

# Summary of Hits



Job Number: MC29833
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
Collected: 04/16/14



| Lab Sample ID / Analyte | Client Sample ID | Result/ Qual | RL | MDL | Units | Method |
|---|---|---|---|---|---|---|
| MC29833-1 | MW4-ROX-041614 | | | | | |
| Benzene | | 553 | 5.0 | 3.2 | ug/l | SW846 8260C |
| Isopropylbenzene | | 0.59 J | 5.0 | 0.35 | ug/l | SW846 8260C |
| n-Propylbenzene | | 0.81 J | 5.0 | 0.49 | ug/l | SW846 8260C |
| Toluene | | 0.99 J | 1.0 | 0.33 | ug/l | SW846 8260C |
| m,p-Xylene | | 2.7 | 1.0 | 0.93 | ug/l | SW846 8260C |
| o-Xylene | | 0.39 J | 1.0 | 0.36 | ug/l | SW846 8260C |
| Xylene (total) | | 3.1 | 1.0 | 0.36 | ug/l | SW846 8260C |
| Di-n-butyl phthalate | | 0.76 JB | 5.6 | 0.19 | ug/l | SW846 8270D |
| 1-Methylnaphthalene | | 0.072 J | 0.22 | 0.055 | ug/l | SW846 8270D BY SIM |
| MC29833-2 | MW8-ROX-041614 | | | | | |
| Benzene | | 862000 | 5000 | 3200 | ug/l | SW846 8260C |
| 3&4-Methylphenol | | 6.2 J | 11 | 0.52 | ug/l | SW846 8270D |
| Phenol | | 135 | 5.6 | 0.34 | ug/l | SW846 8270D |
| Dibenzofuran | | 0.50 J | 2.2 | 0.29 | ug/l | SW846 8270D |
| Di-n-butyl phthalate | | 0.73 JB | 5.6 | 0.19 | ug/l | SW846 8270D |
| Acenaphthene | | 0.18 | 0.11 | 0.077 | ug/l | SW846 8270D BY SIM |
| Acenaphthylene | | 0.074 J | 0.11 | 0.055 | ug/l | SW846 8270D BY SIM |
| Fluorene | | 0.46 | 0.11 | 0.11 | ug/l | SW846 8270D BY SIM |
| 1-Methylnaphthalene | | 14.2 | 0.22 | 0.055 | ug/l | SW846 8270D BY SIM |
| 2-Methylnaphthalene | | 9.7 | 0.22 | 0.082 | ug/l | SW846 8270D BY SIM |
| Phenanthrene | | 0.15 B | 0.056 | 0.014 | ug/l | SW846 8270D BY SIM |
| MC29833-3 | MW8-ROX-041614-DUP | | | | | |
| Benzene | | 1060000 | 5000 | 3200 | ug/l | SW846 8260C |
| 3&4-Methylphenol | | 5.3 J | 10 | 0.48 | ug/l | SW846 8270D |
| Phenol | | 118 | 5.1 | 0.31 | ug/l | SW846 8270D |
| Dibenzofuran | | 0.45 J | 2.0 | 0.26 | ug/l | SW846 8270D |
| Di-n-butyl phthalate | | 0.60 JB | 5.1 | 0.18 | ug/l | SW846 8270D |
| Acenaphthene | | 0.16 | 0.10 | 0.070 | ug/l | SW846 8270D BY SIM |
| Acenaphthylene | | 0.063 J | 0.10 | 0.051 | ug/l | SW846 8270D BY SIM |
| Fluorene | | 0.43 | 0.10 | 0.10 | ug/l | SW846 8270D BY SIM |
| 1-Methylnaphthalene | | 12.9 | 0.20 | 0.051 | ug/l | SW846 8270D BY SIM |
| 2-Methylnaphthalene | | 8.6 | 0.20 | 0.076 | ug/l | SW846 8270D BY SIM |
| Phenanthrene | | 0.16 B | 0.051 | 0.013 | ug/l | SW846 8270D BY SIM |
| MC29833-4 | MW7-ROX-041614 | | | | | |
| Benzene | | 1390000 | 2500 | 1600 | ug/l | SW846 8260C |
| Phenol | | 98.8 | 5.2 | 0.31 | ug/l | SW846 8270D |
| Di-n-butyl phthalate | | 0.71 JB | 5.2 | 0.18 | ug/l | SW846 8270D |

# Summary of Hits

**Job Number:** MC29833
**Account:** Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Collected:** 04/16/14



| Lab Sample ID / Analyte | Client Sample ID | Result/ Qual | RL | MDL | Units | Method |
|---|---|---|---|---|---|---|
| Acenaphthene | | 0.34 | 0.10 | 0.071 | ug/l | SW846 8270D BY SIM |
| Fluorene | | 0.26 | 0.10 | 0.10 | ug/l | SW846 8270D BY SIM |
| 1-Methylnaphthalene | | 7.4 | 0.21 | 0.051 | ug/l | SW846 8270D BY SIM |
| 2-Methylnaphthalene | | 10.3 | 0.21 | 0.076 | ug/l | SW846 8270D BY SIM |
| Phenanthrene | | 0.33 B | 0.052 | 0.013 | ug/l | SW846 8270D BY SIM |

**MC29833-5** **TB-ROX-041614-HCL**

No hits reported in this sample.

**MC29833-6** **TB-ROX-041614-ST**

No hits reported in this sample.

## Sample Results

Report of Analysis

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW4-ROX-041614 | | |
| **Lab Sample ID:** | MC29833-1 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V30455.D | 1 | 04/30/14 | AMY | n/a | n/a | MSV1137 |
| Run #2 | V30463.D | 10 | 04/30/14 | AMY | n/a | n/a | MSV1137 |

| | 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 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | 553 [a] | 5.0 | 3.2 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [b] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane [b] | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-041614 | | |
| **Lab Sample ID:** | MC29833-1 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | 0.59 | 5.0 | 0.35 | ug/l | J |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | 0.81 | 5.0 | 0.49 | ug/l | J |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | 0.99 | 1.0 | 0.33 | ug/l | J |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | 2.7 | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | 0.39 | 1.0 | 0.36 | ug/l | J |
| 1330-20-7 | Xylene (total) | 3.1 | 1.0 | 0.36 | 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-041614 | | |
| **Lab Sample ID:** | MC29833-1 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 82% | 97% | 70-130% |
| 2037-26-5 | Toluene-D8 | 94% | 88% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 94% | 91% | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Result is from Run# 2
(b) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates 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-041614 | | |
| **Lab Sample ID:** | MC29833-1 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38288.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |
| 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 | 0.34 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 11 | 0.92 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 11 | 0.44 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 11 | 0.62 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 22 | 2.8 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 11 | 2.1 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 11 | 0.25 | ug/l | |
| | 3&4-Methylphenol | ND | 11 | 0.52 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 11 | 3.2 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 22 | 0.59 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 11 | 1.2 | ug/l | |
| 108-95-2 | Phenol | ND | 5.6 | 0.34 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 11 | 0.41 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 11 | 0.19 | ug/l | |
| 62-53-3 | Aniline | ND | 11 | 0.71 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.6 | 0.52 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.6 | 0.59 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 11 | 2.5 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.6 | 0.35 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 11 | 0.62 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.6 | 0.32 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.6 | 0.39 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.6 | 0.37 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.6 | 0.28 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.6 | 0.27 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 11 | 0.51 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 11 | 0.33 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.6 | 0.30 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.2 | 0.29 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.76 | 5.6 | 0.19 | ug/l | JB |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.6 | 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:** | MW4-ROX-041614 | | |
| **Lab Sample ID:** | MC29833-1 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.22 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.6 | 0.38 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.2 | 0.37 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.6 | 0.32 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 11 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.6 | 0.34 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.6 | 0.50 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 11 | 0.44 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 11 | 1.5 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 11 | 2.4 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.6 | 0.43 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.6 | 1.1 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.6 | 0.45 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.6 | 0.21 | ug/l | |
| 110-86-1 | Pyridine | ND | 11 | 0.57 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 46% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 29% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 89% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 77% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 78% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 95% | | 30-130% |

| 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-041614 | | |
| **Lab Sample ID:** | MC29833-1 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88686.D | 1 | 04/21/14 | MR | 04/18/14 | OP37658 | MSI3303 |
| 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 | 0.077 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.11 | 0.055 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.11 | 0.10 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.056 | 0.022 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.11 | 0.032 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.056 | 0.035 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.11 | 0.030 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.11 | 0.043 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.11 | 0.026 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.11 | 0.035 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.11 | 0.045 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.11 | 0.11 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.11 | 0.034 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | 0.072 | 0.22 | 0.055 | ug/l | J |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.22 | 0.082 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 0.056 | 0.014 | ug/l | |
| 129-00-0 | Pyrene | ND | 0.11 | 0.043 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 71% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 70% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 94% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041614 | | |
| **Lab Sample ID:** | MC29833-1 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | BB55419.D | 1 | 04/21/14 | SZ | 04/18/14 | OP37671 | GBB3222 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.4 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0052 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 75% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 79% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041614 | | |
| **Lab Sample ID:** | MC29833-2 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V30456.D | 2000 | 04/30/14 | AMY | n/a | n/a | MSV1137 |
| Run #2 | V30464.D | 10000 | 04/30/14 | AMY | n/a | n/a | MSV1137 |

| | 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 | 20000 | 5000 | ug/l | |
| 107-02-8 | Acrolein | ND | 50000 | 12000 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10000 | 4200 | ug/l | |
| 71-43-2 | Benzene | 862000 [a] | 5000 | 3200 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 10000 | 700 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 10000 | 1100 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 2000 | 680 | ug/l | |
| 75-25-2 | Bromoform | ND | 2000 | 1200 | ug/l | |
| 74-83-9 | Bromomethane | ND | 4000 | 3500 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10000 | 4700 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 10000 | 2200 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 10000 | 840 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 10000 | 780 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 10000 | 920 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 2000 | 1100 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 2000 | 860 | ug/l | |
| 75-00-3 | Chloroethane | ND | 4000 | 1100 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [b] | ND | 10000 | 6600 | ug/l | |
| 67-66-3 | Chloroform | ND | 2000 | 820 | ug/l | |
| 74-87-3 | Chloromethane | ND | 4000 | 2100 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 10000 | 760 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 10000 | 900 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 2000 | 760 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 2000 | 630 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 2000 | 1100 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 2000 | 710 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane [b] | ND | 4000 | 1400 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 2000 | 720 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 2000 | 1000 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 2000 | 1200 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 2000 | 1700 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 2000 | 1000 | 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-041614 | | |
| **Lab Sample ID:** | MC29833-2 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | ND | 4000 | 1000 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 10000 | 1800 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 10000 | 1400 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 10000 | 950 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1000 | 840 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1000 | 1000 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 50000 | 22000 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 10000 | 990 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 2000 | 760 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 10000 | 3300 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 10000 | 3200 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 10000 | 700 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 10000 | 750 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 2000 | 1000 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 10000 | 2000 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 10000 | 1000 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 4000 | 560 | ug/l | |
| 91-20-3 | Naphthalene | ND | 10000 | 1400 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 10000 | 980 | ug/l | |
| 100-42-5 | Styrene | ND | 10000 | 1700 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 2000 | 870 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1000 | 800 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 2000 | 1200 | ug/l | |
| 108-88-3 | Toluene | ND | 2000 | 660 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 10000 | 1400 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 10000 | 1000 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 2000 | 930 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 2000 | 910 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 2000 | 940 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2000 | 1100 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 10000 | 1600 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 10000 | 640 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 10000 | 770 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10000 | 1400 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 2000 | 1200 | ug/l | |
| | m,p-Xylene | ND | 2000 | 1900 | ug/l | |
| 95-47-6 | o-Xylene | ND | 2000 | 730 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 2000 | 730 | 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-041614 | | |
| **Lab Sample ID:** | MC29833-2 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 109% | 108% | 70-130% |
| 2037-26-5 | Toluene-D8 | 87% | 88% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 90% | 88% | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Result is from Run# 2
(b) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates 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-041614 | | |
| **Lab Sample ID:** | MC29833-2 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38289.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |
| 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 | 0.34 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 11 | 0.92 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 11 | 0.44 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 11 | 0.62 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 22 | 2.8 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 11 | 2.1 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 11 | 0.25 | ug/l | |
| | 3&4-Methylphenol | 6.2 | 11 | 0.52 | ug/l | J |
| 88-75-5 | 2-Nitrophenol | ND | 11 | 3.2 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 22 | 0.59 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 11 | 1.2 | ug/l | |
| 108-95-2 | Phenol | 135 | 5.6 | 0.34 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 11 | 0.41 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 11 | 0.19 | ug/l | |
| 62-53-3 | Aniline | ND | 11 | 0.71 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.6 | 0.52 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.6 | 0.59 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 11 | 2.5 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.6 | 0.35 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 11 | 0.62 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.6 | 0.32 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.6 | 0.39 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.6 | 0.37 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.6 | 0.28 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.6 | 0.27 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 11 | 0.51 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 11 | 0.33 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.6 | 0.30 | ug/l | |
| 132-64-9 | Dibenzofuran | 0.50 | 2.2 | 0.29 | ug/l | J |
| 84-74-2 | Di-n-butyl phthalate | 0.73 | 5.6 | 0.19 | ug/l | JB |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.6 | 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:** | MW8-ROX-041614 | | |
| **Lab Sample ID:** | MC29833-2 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.22 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.6 | 0.38 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.2 | 0.37 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.6 | 0.32 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 11 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.6 | 0.34 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.6 | 0.50 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 11 | 0.44 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 11 | 1.5 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 11 | 2.4 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.6 | 0.43 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.6 | 1.1 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.6 | 0.45 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.6 | 0.21 | ug/l | |
| 110-86-1 | Pyridine | ND | 11 | 0.57 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 51% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 32% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 97% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 76% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 79% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 94% | | 30-130% |

| 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-041614 | | |
| **Lab Sample ID:** | MC29833-2 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88687.D | 1 | 04/21/14 | MR | 04/18/14 | OP37658 | MSI3303 |
| 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 | 0.18 | 0.11 | 0.077 | ug/l | |
| 208-96-8 | Acenaphthylene | 0.074 | 0.11 | 0.055 | ug/l | J |
| 120-12-7 | Anthracene | ND | 0.11 | 0.10 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.056 | 0.022 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.11 | 0.032 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.056 | 0.035 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.11 | 0.030 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.11 | 0.043 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.11 | 0.026 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.11 | 0.035 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.11 | 0.045 | ug/l | |
| 86-73-7 | Fluorene | 0.46 | 0.11 | 0.11 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.11 | 0.034 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | 14.2 | 0.22 | 0.055 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 9.7 | 0.22 | 0.082 | ug/l | |
| 85-01-8 | Phenanthrene | 0.15 | 0.056 | 0.014 | ug/l | B |
| 129-00-0 | Pyrene | ND | 0.11 | 0.043 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 72% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 72% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 93% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041614 | | |
| **Lab Sample ID:** | MC29833-2 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | BB55420.D | 1 | 04/21/14 | SZ | 04/18/14 | OP37671 | GBB3222 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.4 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0052 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 80% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 94% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041614-DUP | | |
| **Lab Sample ID:** | MC29833-3 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V30457.D | 2000 | 04/30/14 | AMY | n/a | n/a | MSV1137 |
| Run #2 | V30470.D | 10000 | 04/30/14 | AMY | n/a | n/a | MSV1137 |

| | 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 | 20000 | 5000 | ug/l | |
| 107-02-8 | Acrolein | ND | 50000 | 12000 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10000 | 4200 | ug/l | |
| 71-43-2 | Benzene | 1060000 [a] | 5000 | 3200 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 10000 | 700 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 10000 | 1100 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 2000 | 680 | ug/l | |
| 75-25-2 | Bromoform | ND | 2000 | 1200 | ug/l | |
| 74-83-9 | Bromomethane | ND | 4000 | 3500 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10000 | 4700 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 10000 | 2200 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 10000 | 840 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 10000 | 780 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 10000 | 920 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 2000 | 1100 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 2000 | 860 | ug/l | |
| 75-00-3 | Chloroethane | ND | 4000 | 1100 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [b] | ND | 10000 | 6600 | ug/l | |
| 67-66-3 | Chloroform | ND | 2000 | 820 | ug/l | |
| 74-87-3 | Chloromethane | ND | 4000 | 2100 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 10000 | 760 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 10000 | 900 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 2000 | 760 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 2000 | 630 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 2000 | 1100 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 2000 | 710 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane [b] | ND | 4000 | 1400 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 2000 | 720 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 2000 | 1000 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 2000 | 1200 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 2000 | 1700 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 2000 | 1000 | ug/l | |

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J = Indicates 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-041614-DUP | | |
| **Lab Sample ID:** | MC29833-3 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | ND | 4000 | 1000 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 10000 | 1800 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 10000 | 1400 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 10000 | 950 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1000 | 840 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1000 | 1000 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 50000 | 22000 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 10000 | 990 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 2000 | 760 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 10000 | 3300 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 10000 | 3200 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 10000 | 700 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 10000 | 750 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 2000 | 1000 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 10000 | 2000 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 10000 | 1000 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 4000 | 560 | ug/l | |
| 91-20-3 | Naphthalene | ND | 10000 | 1400 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 10000 | 980 | ug/l | |
| 100-42-5 | Styrene | ND | 10000 | 1700 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 2000 | 870 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1000 | 800 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 2000 | 1200 | ug/l | |
| 108-88-3 | Toluene | ND | 2000 | 660 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 10000 | 1400 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 10000 | 1000 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 2000 | 930 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 2000 | 910 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 2000 | 940 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2000 | 1100 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 10000 | 1600 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 10000 | 640 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 10000 | 770 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10000 | 1400 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 2000 | 1200 | ug/l | |
| | m,p-Xylene | ND | 2000 | 1900 | ug/l | |
| 95-47-6 | o-Xylene | ND | 2000 | 730 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 2000 | 730 | 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-041614-DUP | | |
| **Lab Sample ID:** | MC29833-3 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 113% | 87% | 70-130% |
| 2037-26-5 | Toluene-D8 | 88% | 86% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 89% | 90% | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Result is from Run# 2
(b) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates 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-041614-DUP | | |
| **Lab Sample ID:** | MC29833-3 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38290.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |
| 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 | 0.32 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 10 | 0.84 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 10 | 0.40 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 10 | 0.57 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 20 | 2.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 2.0 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 10 | 0.23 | ug/l | |
| | 3&4-Methylphenol | 5.3 | 10 | 0.48 | ug/l | J |
| 88-75-5 | 2-Nitrophenol | ND | 10 | 2.9 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 20 | 0.55 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 10 | 1.1 | ug/l | |
| 108-95-2 | Phenol | 118 | 5.1 | 0.31 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 10 | 0.38 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 10 | 0.18 | ug/l | |
| 62-53-3 | Aniline | ND | 10 | 0.65 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.1 | 0.48 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.1 | 0.54 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 10 | 2.3 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.1 | 0.32 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 10 | 0.57 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.1 | 0.29 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.1 | 0.36 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.1 | 0.34 | 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 | 0.24 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 10 | 0.47 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 10 | 0.31 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.1 | 0.27 | ug/l | |
| 132-64-9 | Dibenzofuran | 0.45 | 2.0 | 0.26 | ug/l | J |
| 84-74-2 | Di-n-butyl phthalate | 0.60 | 5.1 | 0.18 | ug/l | JB |
| 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:** | MW8-ROX-041614-DUP | | |
| **Lab Sample ID:** | MC29833-3 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.20 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.1 | 0.35 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.0 | 0.34 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.1 | 0.30 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 10 | 1.3 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.1 | 0.31 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.1 | 0.46 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 0.40 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 1.4 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 2.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.1 | 0.40 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.1 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.1 | 0.41 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.1 | 0.20 | ug/l | |
| 110-86-1 | Pyridine | ND | 10 | 0.53 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 50% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 31% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 90% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 76% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 75% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 90% | | 30-130% |

| 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-041614-DUP | | |
| **Lab Sample ID:** | MC29833-3 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88688.D | 1 | 04/21/14 | MR | 04/18/14 | OP37658 | MSI3303 |
| 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 | 0.16 | 0.10 | 0.070 | ug/l | |
| 208-96-8 | Acenaphthylene | 0.063 | 0.10 | 0.051 | ug/l | J |
| 120-12-7 | Anthracene | ND | 0.10 | 0.094 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.051 | 0.020 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.10 | 0.029 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.051 | 0.032 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.10 | 0.027 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.10 | 0.039 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.10 | 0.024 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.10 | 0.033 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.10 | 0.041 | ug/l | |
| 86-73-7 | Fluorene | 0.43 | 0.10 | 0.10 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.10 | 0.031 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | 12.9 | 0.20 | 0.051 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 8.6 | 0.20 | 0.076 | ug/l | |
| 85-01-8 | Phenanthrene | 0.16 | 0.051 | 0.013 | ug/l | B |
| 129-00-0 | Pyrene | ND | 0.10 | 0.039 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 72% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 70% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 89% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041614-DUP | | |
| **Lab Sample ID:** | MC29833-3 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | BB55421.D | 1 | 04/21/14 | SZ | 04/18/14 | OP37671 | GBB3222 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.1 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.015 | 0.0053 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.015 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 90% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 109% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041614 | | |
| **Lab Sample ID:** | MC29833-4 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V30458.D | 5000 | 04/30/14 | AMY | n/a | n/a | MSV1137 |
| 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 | 50000 | 13000 | ug/l | |
| 107-02-8 | Acrolein | ND | 130000 | 30000 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 25000 | 11000 | ug/l | |
| 71-43-2 | Benzene | 1390000 | 2500 | 1600 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 25000 | 1700 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 25000 | 2800 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 5000 | 1700 | ug/l | |
| 75-25-2 | Bromoform | ND | 5000 | 3100 | ug/l | |
| 74-83-9 | Bromomethane | ND | 10000 | 8800 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 25000 | 12000 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 25000 | 5400 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 25000 | 2100 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 25000 | 1900 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 25000 | 2300 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 5000 | 2700 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 5000 | 2100 | ug/l | |
| 75-00-3 | Chloroethane | ND | 10000 | 2700 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [a] | ND | 25000 | 17000 | ug/l | |
| 67-66-3 | Chloroform | ND | 5000 | 2100 | ug/l | |
| 74-87-3 | Chloromethane | ND | 10000 | 5400 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 25000 | 1900 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 25000 | 2200 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 5000 | 1900 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 5000 | 1600 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 5000 | 2800 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 5000 | 1800 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane [a] | ND | 10000 | 3600 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 5000 | 1800 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 5000 | 2500 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 5000 | 3000 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 5000 | 4200 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 5000 | 2500 | ug/l | |

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J = Indicates 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-041614 | | |
| **Lab Sample ID:** | MC29833-4 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | ND | 10000 | 2500 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 25000 | 4500 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 25000 | 3500 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 25000 | 2400 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 2500 | 2100 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 2500 | 2500 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 130000 | 54000 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 25000 | 2500 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 5000 | 1900 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 25000 | 8300 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 25000 | 8000 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 25000 | 1700 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 25000 | 1900 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 5000 | 2600 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 25000 | 4900 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 25000 | 2600 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 10000 | 1400 | ug/l | |
| 91-20-3 | Naphthalene | ND | 25000 | 3400 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 25000 | 2500 | ug/l | |
| 100-42-5 | Styrene | ND | 25000 | 4300 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 5000 | 2200 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 2500 | 2000 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 5000 | 3000 | ug/l | |
| 108-88-3 | Toluene | ND | 5000 | 1700 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 25000 | 3400 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 25000 | 2500 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 5000 | 2300 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 5000 | 2300 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 5000 | 2400 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 5000 | 2700 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 25000 | 4100 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 25000 | 1600 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 25000 | 1900 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 25000 | 3600 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 5000 | 2900 | ug/l | |
| | m,p-Xylene | ND | 5000 | 4700 | ug/l | |
| 95-47-6 | o-Xylene | ND | 5000 | 1800 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 5000 | 1800 | 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-041614 | | |
| **Lab Sample ID:** | MC29833-4 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 110% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 89% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 90% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041614 | | |
| **Lab Sample ID:** | MC29833-4 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38291.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |
| 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 | 0.32 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 10 | 0.85 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 10 | 0.41 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 10 | 0.58 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 21 | 2.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 2.0 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 10 | 0.23 | ug/l | |
| | 3&4-Methylphenol | ND | 10 | 0.48 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 10 | 3.0 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 21 | 0.55 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 10 | 1.2 | ug/l | |
| 108-95-2 | Phenol | 98.8 | 5.2 | 0.31 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 10 | 0.38 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 10 | 0.18 | ug/l | |
| 62-53-3 | Aniline | ND | 10 | 0.66 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.2 | 0.49 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.2 | 0.55 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 10 | 2.3 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.2 | 0.32 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 10 | 0.57 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.2 | 0.30 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.2 | 0.36 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.2 | 0.34 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.2 | 0.26 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.2 | 0.25 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 10 | 0.47 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 10 | 0.31 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.2 | 0.28 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.1 | 0.27 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.71 | 5.2 | 0.18 | ug/l | JB |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.2 | 0.29 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW7-ROX-041614 | | |
| **Lab Sample ID:** | MC29833-4 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.21 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.2 | 0.35 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.1 | 0.34 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.2 | 0.30 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 10 | 1.3 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.2 | 0.31 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.2 | 0.46 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 0.41 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 1.4 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 2.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.2 | 0.40 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.2 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.2 | 0.42 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.2 | 0.20 | ug/l | |
| 110-86-1 | Pyridine | ND | 10 | 0.53 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 60% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 31% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 89% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 72% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 76% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 88% | | 30-130% |

| 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-041614 | | |
| **Lab Sample ID:** | MC29833-4 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88689.D | 1 | 04/21/14 | MR | 04/18/14 | OP37658 | MSI3303 |
| 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 | 0.34 | 0.10 | 0.071 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.10 | 0.051 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.10 | 0.095 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.052 | 0.020 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.10 | 0.030 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.052 | 0.033 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.10 | 0.028 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.10 | 0.040 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.10 | 0.025 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.10 | 0.033 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.10 | 0.042 | ug/l | |
| 86-73-7 | Fluorene | 0.26 | 0.10 | 0.10 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.10 | 0.032 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | 7.4 | 0.21 | 0.051 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 10.3 | 0.21 | 0.076 | ug/l | |
| 85-01-8 | Phenanthrene | 0.33 | 0.052 | 0.013 | ug/l | B |
| 129-00-0 | Pyrene | ND | 0.10 | 0.040 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 72% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 68% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 92% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041614 | | |
| **Lab Sample ID:** | MC29833-4 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | BB55422.D | 1 | 04/22/14 | SZ | 04/18/14 | OP37671 | GBB3222 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 35.7 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.015 | 0.0053 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.015 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 65% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 73% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041614-HCL | | |
| **Lab Sample ID:** | MC29833-5 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V30452.D | 1 | 04/30/14 | AMY | n/a | n/a | MSV1137 |
| 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 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [a] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane [a] | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-041614-HCL | | |
| **Lab Sample ID:** | MC29833-5 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-041614-HCL | | |
| **Lab Sample ID:** | MC29833-5 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 107% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 93% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 89% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041614-ST | | |
| **Lab Sample ID:** | MC29833-6 | **Date Sampled:** | 04/16/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/17/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | BB55423.D | 1 | 04/22/14 | SZ | 04/18/14 | OP37671 | GBB3222 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.5 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0052 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 79% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 86% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

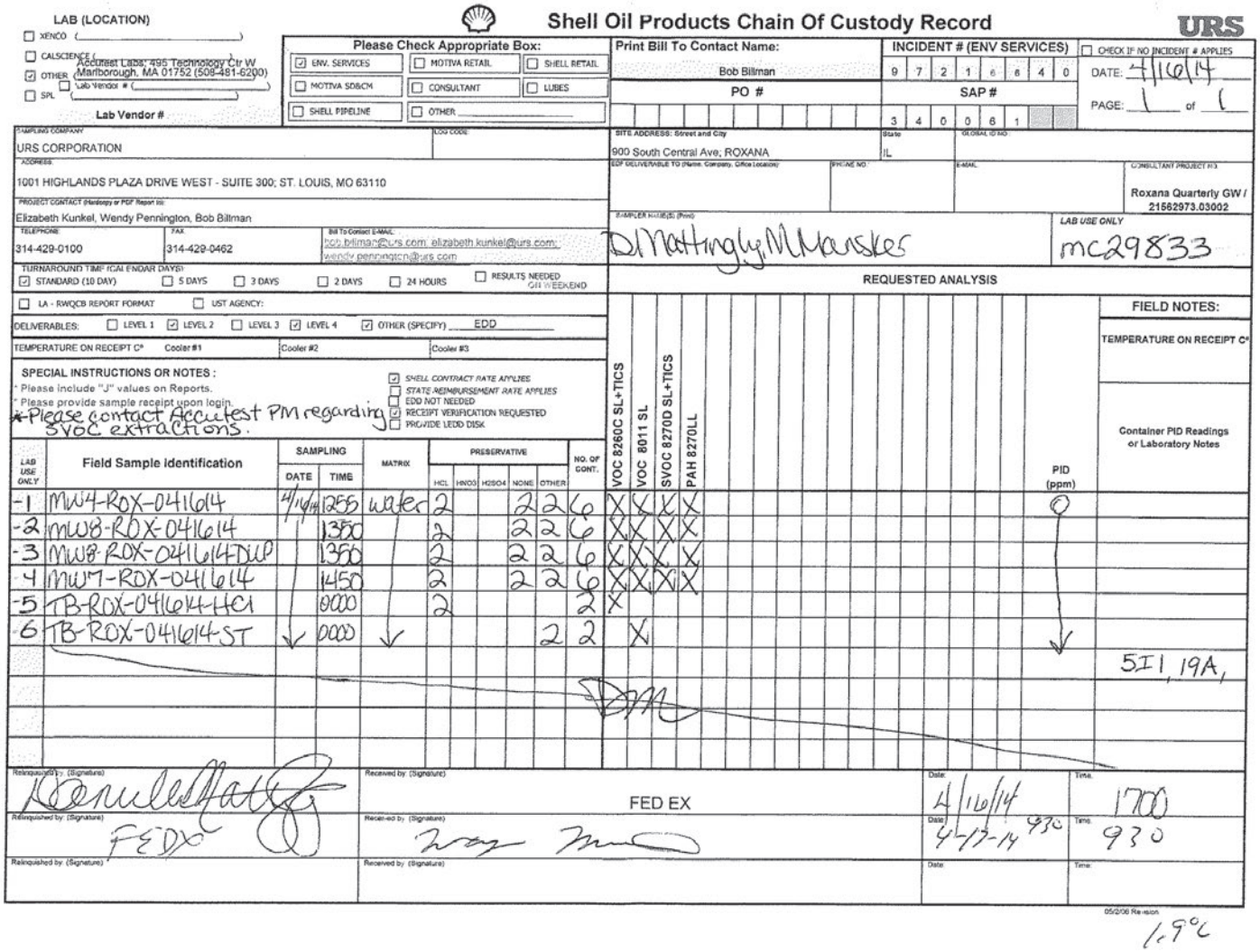
## Misc. Forms



# Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



LAB (LOCATION)
☐ XENCO (_____)
☐ CALSCIENCE (_____)
☑ OTHER (Accutest Labs; 495 Technology Ctr W Marlborough, MA 01752 (508-481-6200))
☐ SPL ☐ Lab Vendor # (_____)
Lab Vendor #

Shell Oil Products Chain Of Custody Record

URS

Please Check Appropriate Box:
☑ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SD&CM ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name: Bob Billman
PO #
INCIDENT # (ENV SERVICES): 9 7 2 1 6 8 4 0
SAP #: 3 4 0 0 6 1
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 4/16/14
PAGE: 1 of 1

SAMPLING COMPANY: URS CORPORATION
LOG CODE:
ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300; ST. LOUIS, MO 63110
PROJECT CONTACT (Hardcopy or PDF Report to): Elizabeth Kunkel, Wendy Pennington, Bob Billman
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: bob.billman@urs.com; elizabeth.kunkel@urs.com; wendy.pennington@urs.com
SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA
State: IL
GLOBAL ID NO.:
EDF DELIVERABLE TO (Name, Company, Office Location):
PHONE NO.:
E-MAIL:
CONSULTANT PROJECT NO.: Roxana Quarterly GW / 21562973.03002
SAMPLER NAME(S) (Print): D.Mattingly, M.Marsiglio
LAB USE ONLY: mc29833

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.
* Please contact Accutest PM regarding SVOC extractions.
☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD 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 | PID (ppm) | FIELD NOTES: Container PID Readings or Laboratory Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -1 | MW4-ROX-041614 | 4/16/14 | 1255 | water | 2 | | | 2 | 2 | 6 | X | X | X | X | 0 | |
| -2 | MW8-ROX-041614 | | 1350 | | 2 | | | 2 | 2 | 6 | X | X | X | X | | |
| -3 | MW8-ROX-041614DUP | | 1350 | | 2 | | | 2 | 2 | 6 | X | X | X | X | | |
| -4 | MW7-ROX-041614 | | 1450 | | 2 | | | 2 | 2 | 6 | X | X | X | X | | |
| -5 | TB-ROX-041614-HCl | | 0000 | | 2 | | | | | 2 | X | | | | | |
| -6 | TB-ROX-041614-ST | ↓ | 0000 | ↓ | | | | | 2 | 2 | | X | | | ↓ | |
| | | | | | | | | | | | | | | | | 5I1, 19A, |

TEMPERATURE ON RECEIPT C°: 1.9°C

| Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|---|---|---|---|
| | FED EX | 4/16/14 | 1700 |
| FEDX | | 4-17-14 93C | 930 |
| | | | |

05/2/06 Revision

MC29833: Chain of Custody
Page 1 of 2

# Accutest Laboratories Sample Receipt Summary

**Accutest Job Number:** MC29833 **Client:** URS **Immediate Client Services Action Required:** No

**Date / Time Received:** 4/17/2014 **Delivery Method:** **Client Service Action Required at Login:** No

**Project:** 900 SOUTH CENTRAL **No. Coolers:** 1 **Airbill #'s:**

| 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. Cooler temp verification: | Infared gun | | |
| 3. Cooler media: | Ice (bag) | | |

| 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
www/accutest.com

5.1

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MC29833: Chain of Custody
Page 2 of 2

# Internal Sample Tracking Chronicle

Shell Oil

Job No: MC29833

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample Number | Method | Analyzed | By | Prepped | By | Test Codes |
|---|---|---|---|---|---|---|
| MC29833-1 Collected: 16-APR-14 12:55 By: DMMM Received: 17-APR-14 By: MW4-ROX-041614 | | | | | | |
| MC29833-1 | SW846 8270D | 21-APR-14 13:51 | WK | 18-APR-14 | PA | AB8270SL+ |
| MC29833-1 | SW846 8270D BY SIM | 21-APR-14 19:01 | MR | 18-APR-14 | PA | B8270SIMSL |
| MC29833-1 | SW846 8011 | 21-APR-14 22:53 | SZ | 18-APR-14 | MT | V8011SL |
| MC29833-1 | SW846 8260C | 30-APR-14 11:26 | AMY | | | V8260SL+ |
| MC29833-1 | SW846 8260C | 30-APR-14 15:20 | AMY | | | V8260SL+ |
| MC29833-2 Collected: 16-APR-14 13:50 By: DMMM Received: 17-APR-14 By: MW8-ROX-041614 | | | | | | |
| MC29833-2 | SW846 8270D | 21-APR-14 14:16 | WK | 18-APR-14 | PA | AB8270SL+ |
| MC29833-2 | SW846 8270D BY SIM | 21-APR-14 19:24 | MR | 18-APR-14 | PA | B8270SIMSL |
| MC29833-2 | SW846 8011 | 21-APR-14 23:22 | SZ | 18-APR-14 | MT | V8011SL |
| MC29833-2 | SW846 8260C | 30-APR-14 11:52 | AMY | | | V8260SL+ |
| MC29833-2 | SW846 8260C | 30-APR-14 15:46 | AMY | | | V8260SL+ |
| MC29833-3 Collected: 16-APR-14 13:50 By: DMMM Received: 17-APR-14 By: MW8-ROX-041614-DUP | | | | | | |
| MC29833-3 | SW846 8270D | 21-APR-14 14:40 | WK | 18-APR-14 | PA | AB8270SL+ |
| MC29833-3 | SW846 8270D BY SIM | 21-APR-14 19:47 | MR | 18-APR-14 | PA | B8270SIMSL |
| MC29833-3 | SW846 8011 | 21-APR-14 23:51 | SZ | 18-APR-14 | MT | V8011SL |
| MC29833-3 | SW846 8260C | 30-APR-14 12:18 | AMY | | | V8260SL+ |
| MC29833-3 | SW846 8260C | 30-APR-14 18:41 | AMY | | | V8260SL+ |
| MC29833-4 Collected: 16-APR-14 14:50 By: DMMM Received: 17-APR-14 By: MW7-ROX-041614 | | | | | | |
| MC29833-4 | SW846 8270D | 21-APR-14 15:05 | WK | 18-APR-14 | PA | AB8270SL+ |
| MC29833-4 | SW846 8270D BY SIM | 21-APR-14 20:10 | MR | 18-APR-14 | PA | B8270SIMSL |
| MC29833-4 | SW846 8011 | 22-APR-14 00:21 | SZ | 18-APR-14 | MT | V8011SL |
| MC29833-4 | SW846 8260C | 30-APR-14 12:44 | AMY | | | V8260SL+ |
| MC29833-5 Collected: 16-APR-14 00:00 By: DMMM Received: 17-APR-14 By: TB-ROX-041614-HCL | | | | | | |
| MC29833-5 | SW846 8260C | 30-APR-14 10:08 | AMY | | | V8260SL+ |

# Internal Sample Tracking Chronicle

Shell Oil

Job No: MC29833

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL



| Sample Number | Method | Analyzed | By | Prepped | By | Test Codes |
|---|---|---|---|---|---|---|
| MC29833-6 Collected: 16-APR-14 00:00 By: DMMM Received: 17-APR-14 By: TB-ROX-041614-ST | | | | | | |
| MC29833-6 | SW846 8011 | 22-APR-14 00:49 | SZ | 18-APR-14 | MT | V8011SL |

# SGS Accutest Internal Chain of Custody



**Job Number:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Received:** 04/17/14

| Sample.Bottle Number | Transfer FROM | Transfer TO | Date/Time | Reason |
|---|---|---|---|---|
| MC29833-1.2 | Walk In Ref #22 | Michael DiBuono | 04/18/14 08:56 | Retrieve from Storage |
| MC29833-1.2 | Michael DiBuono | | 05/15/14 07:58 | Depleted |
| MC29833-1.4 | VOC Ref #5 | Amy Min Yang | 04/30/14 09:06 | Retrieve from Storage |
| MC29833-1.4 | Amy Min Yang | GCMSV | 04/30/14 09:06 | Load on Instrument |
| MC29833-1.4 | GCMSV | Amy Min Yang | 05/02/14 15:43 | Unload from Instrument |
| MC29833-1.4 | Amy Min Yang | VOC Ref #5 | 05/02/14 15:43 | Return to Storage |
| MC29833-1.4 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29833-1.6 | VOC Ref #5 | Marc Tahtamoni | 04/18/14 18:53 | Retrieve from Storage |
| MC29833-1.6 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29833-2.2 | Walk In Ref #22 | Michael DiBuono | 04/18/14 08:56 | Retrieve from Storage |
| MC29833-2.2 | Michael DiBuono | | 05/15/14 07:58 | Depleted |
| MC29833-2.4 | VOC Ref #5 | Amy Min Yang | 04/30/14 09:06 | Retrieve from Storage |
| MC29833-2.4 | Amy Min Yang | GCMSV | 04/30/14 09:06 | Load on Instrument |
| MC29833-2.4 | GCMSV | Amy Min Yang | 05/02/14 15:43 | Unload from Instrument |
| MC29833-2.4 | Amy Min Yang | VOC Ref #5 | 05/02/14 15:43 | Return to Storage |
| MC29833-2.4 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29833-2.5 | VOC Ref #5 | Marc Tahtamoni | 04/18/14 18:53 | Retrieve from Storage |
| MC29833-2.5 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29833-3.2 | Walk In Ref #22 | Michael DiBuono | 04/18/14 08:56 | Retrieve from Storage |
| MC29833-3.2 | Michael DiBuono | | 05/15/14 07:58 | Depleted |
| MC29833-3.4 | VOC Ref #5 | Amy Min Yang | 04/30/14 09:06 | Retrieve from Storage |
| MC29833-3.4 | Amy Min Yang | GCMSV | 04/30/14 09:06 | Load on Instrument |
| MC29833-3.4 | GCMSV | Amy Min Yang | 05/02/14 15:43 | Unload from Instrument |
| MC29833-3.4 | Amy Min Yang | VOC Ref #5 | 05/02/14 15:43 | Return to Storage |
| MC29833-3.4 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29833-3.6 | VOC Ref #5 | Marc Tahtamoni | 04/18/14 18:53 | Retrieve from Storage |
| MC29833-3.6 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29833-4.2 | Walk In Ref #22 | Michael DiBuono | 04/18/14 08:56 | Retrieve from Storage |
| MC29833-4.2 | Michael DiBuono | | 05/15/14 07:58 | Depleted |
| MC29833-4.4 | VOC Ref #5 | Amy Min Yang | 04/30/14 09:06 | Retrieve from Storage |
| MC29833-4.4 | Amy Min Yang | GCMSV | 04/30/14 09:06 | Load on Instrument |
| MC29833-4.4 | GCMSV | Amy Min Yang | 05/02/14 15:43 | Unload from Instrument |
| MC29833-4.4 | Amy Min Yang | VOC Ref #5 | 05/02/14 15:43 | Return to Storage |
| MC29833-4.4 | Scott Parsick | | 06/25/14 13:20 | Disposed |

# SGS Accutest Internal Chain of Custody



**Job Number:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Received:** 04/17/14

| Sample.Bottle Number | Transfer FROM | Transfer TO | Date/Time | Reason |
|---|---|---|---|---|
| MC29833-4.5 | VOC Ref #5 | Marc Tahtamoni | 04/18/14 18:53 | Retrieve from Storage |
| MC29833-4.5 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29833-5.1 | VOC Ref #5 | Amy Min Yang | 04/30/14 09:06 | Retrieve from Storage |
| MC29833-5.1 | Amy Min Yang | GCMSV | 04/30/14 09:06 | Load on Instrument |
| MC29833-5.1 | GCMSV | Amy Min Yang | 05/02/14 15:43 | Unload from Instrument |
| MC29833-5.1 | Amy Min Yang | VOC Ref #5 | 05/02/14 15:43 | Return to Storage |
| MC29833-5.1 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29833-6.2 | VOC Ref #5 | Marc Tahtamoni | 04/18/14 18:53 | Retrieve from Storage |
| MC29833-6.2 | Scott Parsick | | 06/25/14 13:20 | Disposed |

## 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:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1137-MB | V30451.D | 1 | 04/30/14 | AMY | n/a | n/a | MSV1137 |



**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29833-1, MC29833-2, MC29833-3, MC29833-4, MC29833-5

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 2.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |

# Method Blank Summary

**Job Number:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1137-MB | V30451.D | 1 | 04/30/14 | AMY | n/a | n/a | MSV1137 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29833-1, MC29833-2, MC29833-3, MC29833-4, MC29833-5

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | ug/l | |

# Method Blank Summary

**Job Number:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1137-MB | V30451.D | 1 | 04/30/14 | AMY | n/a | n/a | MSV1137 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29833-1, MC29833-2, MC29833-3, MC29833-4, MC29833-5

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | 70-130% |
| 2037-26-5 | Toluene-D8 | 93% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 89% | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

# Blank Spike Summary



**Job Number:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1137-BS | V30448.D | 1 | 04/30/14 | AMY | n/a | n/a | MSV1137 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29833-1, MC29833-2, MC29833-3, MC29833-4, MC29833-5

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 50 | 61.1 | 122 | 70-130 |
| 107-02-8 | Acrolein | 250 | 256 | 102 | 70-130 |
| 107-13-1 | Acrylonitrile | 50 | 49.2 | 98 | 70-130 |
| 71-43-2 | Benzene | 50 | 50.1 | 100 | 70-130 |
| 108-86-1 | Bromobenzene | 50 | 51.2 | 102 | 70-130 |
| 74-97-5 | Bromochloromethane | 50 | 48.2 | 96 | 70-130 |
| 75-27-4 | Bromodichloromethane | 50 | 49.3 | 99 | 70-130 |
| 75-25-2 | Bromoform | 50 | 40.9 | 82 | 70-130 |
| 74-83-9 | Bromomethane | 50 | 46.0 | 92 | 70-130 |
| 78-93-3 | 2-Butanone (MEK) | 50 | 57.4 | 115 | 70-130 |
| 104-51-8 | n-Butylbenzene | 50 | 53.1 | 106 | 70-130 |
| 135-98-8 | sec-Butylbenzene | 50 | 54.0 | 108 | 70-130 |
| 98-06-6 | tert-Butylbenzene | 50 | 50.4 | 101 | 70-130 |
| 75-15-0 | Carbon disulfide | 50 | 46.3 | 93 | 70-130 |
| 56-23-5 | Carbon tetrachloride | 50 | 51.0 | 102 | 70-130 |
| 108-90-7 | Chlorobenzene | 50 | 50.9 | 102 | 70-130 |
| 75-00-3 | Chloroethane | 50 | 54.6 | 109 | 70-130 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 50 | 36.2 | 72 | 70-130 |
| 67-66-3 | Chloroform | 50 | 47.9 | 96 | 70-130 |
| 74-87-3 | Chloromethane | 50 | 48.1 | 96 | 70-130 |
| 95-49-8 | o-Chlorotoluene | 50 | 51.5 | 103 | 70-130 |
| 106-43-4 | p-Chlorotoluene | 50 | 53.2 | 106 | 70-130 |
| 124-48-1 | Dibromochloromethane | 50 | 45.1 | 90 | 70-130 |
| 95-50-1 | 1,2-Dichlorobenzene | 50 | 48.8 | 98 | 70-130 |
| 541-73-1 | 1,3-Dichlorobenzene | 50 | 50.1 | 100 | 70-130 |
| 106-46-7 | 1,4-Dichlorobenzene | 50 | 50.4 | 101 | 70-130 |
| 75-71-8 | Dichlorodifluoromethane | 50 | 35.8 | 72 | 70-130 |
| 75-34-3 | 1,1-Dichloroethane | 50 | 50.2 | 100 | 70-130 |
| 107-06-2 | 1,2-Dichloroethane | 50 | 48.6 | 97 | 70-130 |
| 75-35-4 | 1,1-Dichloroethene | 50 | 51.8 | 104 | 70-130 |
| 156-59-2 | cis-1,2-Dichloroethene | 50 | 48.4 | 97 | 70-130 |
| 156-60-5 | trans-1,2-Dichloroethene | 50 | 48.4 | 97 | 70-130 |
| 78-87-5 | 1,2-Dichloropropane | 50 | 55.7 | 111 | 70-130 |
| 142-28-9 | 1,3-Dichloropropane | 50 | 52.8 | 106 | 70-130 |
| 594-20-7 | 2,2-Dichloropropane | 50 | 49.8 | 100 | 70-130 |
| 563-58-6 | 1,1-Dichloropropene | 50 | 49.3 | 99 | 70-130 |

* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1137-BS | V30448.D | 1 | 04/30/14 | AMY | n/a | n/a | MSV1137 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29833-1, MC29833-2, MC29833-3, MC29833-4, MC29833-5

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | 50 | 47.3 | 95 | 70-130 |
| 10061-02-6 | trans-1,3-Dichloropropene | 50 | 58.9 | 118 | 70-130 |
| 123-91-1 | 1,4-Dioxane | 250 | 222 | 89 | 70-130 |
| 97-63-2 | Ethyl methacrylate | 50 | 47.2 | 94 | 77-137 |
| 100-41-4 | Ethylbenzene | 50 | 54.2 | 108 | 70-130 |
| 87-68-3 | Hexachlorobutadiene | 50 | 41.5 | 83 | 70-130 |
| 591-78-6 | 2-Hexanone | 50 | 58.3 | 117 | 70-130 |
| 98-82-8 | Isopropylbenzene | 50 | 52.4 | 105 | 70-130 |
| 99-87-6 | p-Isopropyltoluene | 50 | 53.3 | 107 | 70-130 |
| 1634-04-4 | Methyl Tert Butyl Ether | 50 | 45.6 | 91 | 70-130 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 50 | 48.4 | 97 | 70-130 |
| 74-95-3 | Methylene bromide | 50 | 51.6 | 103 | 70-130 |
| 75-09-2 | Methylene chloride | 50 | 49.8 | 100 | 70-130 |
| 91-20-3 | Naphthalene | 50 | 48.4 | 97 | 70-130 |
| 103-65-1 | n-Propylbenzene | 50 | 53.5 | 107 | 70-130 |
| 100-42-5 | Styrene | 50 | 55.8 | 112 | 70-130 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 50 | 52.5 | 105 | 70-130 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 50 | 57.3 | 115 | 70-130 |
| 127-18-4 | Tetrachloroethene | 50 | 50.8 | 102 | 70-130 |
| 108-88-3 | Toluene | 50 | 55.4 | 111 | 70-130 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 50 | 50.9 | 102 | 70-130 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 50 | 41.4 | 83 | 70-130 |
| 71-55-6 | 1,1,1-Trichloroethane | 50 | 50.4 | 101 | 70-130 |
| 79-00-5 | 1,1,2-Trichloroethane | 50 | 57.3 | 115 | 70-130 |
| 79-01-6 | Trichloroethene | 50 | 47.8 | 96 | 70-130 |
| 75-69-4 | Trichlorofluoromethane | 50 | 51.3 | 103 | 70-130 |
| 96-18-4 | 1,2,3-Trichloropropane | 50 | 54.8 | 110 | 70-130 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 50 | 52.6 | 105 | 70-130 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 50 | 53.2 | 106 | 70-130 |
| 108-05-4 | Vinyl Acetate | 50 | 48.2 | 96 | 70-130 |
| 75-01-4 | Vinyl chloride | 50 | 50.3 | 101 | 70-130 |
| | m,p-Xylene | 100 | 110 | 110 | 70-130 |
| 95-47-6 | o-Xylene | 50 | 53.6 | 107 | 70-130 |
| 1330-20-7 | Xylene (total) | 150 | 163 | 109 | 70-130 |

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1137-BS | V30448.D | 1 | 04/30/14 | AMY | n/a | n/a | MSV1137 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29833-1, MC29833-2, MC29833-3, MC29833-4, MC29833-5

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 85% | 70-130% |
| 2037-26-5 | Toluene-D8 | 93% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 90% | 70-130% |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29904-2MS | V30472.D | 5 | 04/30/14 | AMY | n/a | n/a | MSV1137 |
| MC29904-2MSD | V30473.D | 5 | 04/30/14 | AMY | n/a | n/a | MSV1137 |
| MC29904-2 | V30459.D | 1 | 04/30/14 | AMY | n/a | n/a | MSV1137 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29833-1, MC29833-2, MC29833-3, MC29833-4, MC29833-5

| CAS No. | Compound | MC29904-2 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 | 189 | 76 | 250 | 187 | 75 | 1 | 70-130/30 |
| 107-02-8 | Acrolein | ND | | 1250 | 1230 | 98 | 1250 | 1160 | 93 | 6 | 70-130/30 |
| 107-13-1 | Acrylonitrile | ND | | 250 | 277 | 111 | 250 | 265 | 106 | 4 | 70-130/30 |
| 71-43-2 | Benzene | 2.5 | | 250 | 278 | 110 | 250 | 259 | 103 | 7 | 70-130/30 |
| 108-86-1 | Bromobenzene | ND | | 250 | 288 | 115 | 250 | 274 | 110 | 5 | 70-130/30 |
| 74-97-5 | Bromochloromethane | ND | | 250 | 265 | 106 | 250 | 247 | 99 | 7 | 70-130/30 |
| 75-27-4 | Bromodichloromethane | ND | | 250 | 246 | 98 | 250 | 232 | 93 | 6 | 70-130/30 |
| 75-25-2 | Bromoform | ND | | 250 | 213 | 85 | 250 | 212 | 85 | 0 | 70-130/30 |
| 74-83-9 | Bromomethane | ND | | 250 | 209 | 84 | 250 | 191 | 76 | 9 | 70-130/30 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 250 | 213 | 85 | 250 | 203 | 81 | 5 | 70-130/30 |
| 104-51-8 | n-Butylbenzene | ND | | 250 | 295 | 118 | 250 | 280 | 112 | 5 | 70-130/30 |
| 135-98-8 | sec-Butylbenzene | ND | | 250 | 309 | 124 | 250 | 289 | 116 | 7 | 70-130/30 |
| 98-06-6 | tert-Butylbenzene | ND | | 250 | 282 | 113 | 250 | 263 | 105 | 7 | 70-130/30 |
| 75-15-0 | Carbon disulfide | ND | | 250 | 262 | 105 | 250 | 242 | 97 | 8 | 70-130/30 |
| 56-23-5 | Carbon tetrachloride | ND | | 250 | 257 | 103 | 250 | 238 | 95 | 8 | 70-130/30 |
| 108-90-7 | Chlorobenzene | ND | | 250 | 275 | 110 | 250 | 263 | 105 | 4 | 70-130/30 |
| 75-00-3 | Chloroethane | ND | | 250 | 264 | 106 | 250 | 240 | 96 | 10 | 70-130/30 |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | | 250 | ND | 0* [a] | 250 | ND | 0* [a] | nc | 70-130/30 |
| 67-66-3 | Chloroform | ND | | 250 | 248 | 99 | 250 | 229 | 92 | 8 | 70-130/30 |
| 74-87-3 | Chloromethane | ND | | 250 | 221 | 88 | 250 | 201 | 80 | 9 | 70-130/30 |
| 95-49-8 | o-Chlorotoluene | ND | | 250 | 280 | 112 | 250 | 265 | 106 | 6 | 70-130/30 |
| 106-43-4 | p-Chlorotoluene | ND | | 250 | 281 | 112 | 250 | 264 | 106 | 6 | 70-130/30 |
| 124-48-1 | Dibromochloromethane | ND | | 250 | 237 | 95 | 250 | 231 | 92 | 3 | 70-130/30 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 250 | 254 | 102 | 250 | 252 | 101 | 1 | 70-130/30 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 250 | 269 | 108 | 250 | 259 | 104 | 4 | 70-130/30 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 250 | 268 | 107 | 250 | 258 | 103 | 4 | 70-130/30 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 250 | 157 | 63* [a] | 250 | 139 | 56* [a] | 12 | 70-130/30 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 250 | 271 | 108 | 250 | 249 | 100 | 8 | 70-130/30 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 250 | 232 | 93 | 250 | 217 | 87 | 7 | 70-130/30 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 250 | 294 | 118 | 250 | 270 | 108 | 9 | 70-130/30 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 250 | 276 | 110 | 250 | 254 | 102 | 8 | 70-130/30 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 250 | 272 | 109 | 250 | 250 | 100 | 8 | 70-130/30 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 250 | 298 | 119 | 250 | 284 | 114 | 5 | 70-130/30 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 250 | 283 | 113 | 250 | 275 | 110 | 3 | 70-130/30 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 250 | 235 | 94 | 250 | 216 | 86 | 8 | 70-130/30 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 250 | 268 | 107 | 250 | 249 | 100 | 7 | 70-130/30 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29904-2MS | V30472.D | 5 | 04/30/14 | AMY | n/a | n/a | MSV1137 |
| MC29904-2MSD | V30473.D | 5 | 04/30/14 | AMY | n/a | n/a | MSV1137 |
| MC29904-2 | V30459.D | 1 | 04/30/14 | AMY | n/a | n/a | MSV1137 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29833-1, MC29833-2, MC29833-3, MC29833-4, MC29833-5

| CAS No. | Compound | MC29904-2 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 | 237 | 95 | 250 | 228 | 91 | 4 | 70-130/30 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 250 | 299 | 120 | 250 | 289 | 116 | 3 | 70-130/30 |
| 123-91-1 | 1,4-Dioxane | ND | | 1250 | 965 | 77 | 1250 | 999 | 80 | 3 | 70-130/30 |
| 97-63-2 | Ethyl methacrylate | ND | | 250 | 264 | 106 | 250 | 256 | 102 | 3 | 72-139/30 |
| 100-41-4 | Ethylbenzene | ND | | 250 | 289 | 116 | 250 | 275 | 110 | 5 | 70-130/30 |
| 87-68-3 | Hexachlorobutadiene | ND | | 250 | 245 | 98 | 250 | 245 | 98 | 0 | 70-130/30 |
| 591-78-6 | 2-Hexanone | ND | | 250 | 230 | 92 | 250 | 227 | 91 | 1 | 70-130/30 |
| 98-82-8 | Isopropylbenzene | ND | | 250 | 300 | 120 | 250 | 282 | 113 | 6 | 70-130/30 |
| 99-87-6 | p-Isopropyltoluene | ND | | 250 | 297 | 119 | 250 | 280 | 112 | 6 | 70-130/30 |
| 1634-04-4 | Methyl Tert Butyl Ether | 46.3 | | 250 | 299 | 101 | 250 | 283 | 95 | 5 | 70-130/30 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 250 | 264 | 106 | 250 | 259 | 104 | 2 | 70-130/30 |
| 74-95-3 | Methylene bromide | ND | | 250 | 263 | 105 | 250 | 250 | 100 | 5 | 70-130/30 |
| 75-09-2 | Methylene chloride | ND | | 250 | 272 | 109 | 250 | 252 | 101 | 8 | 70-130/30 |
| 91-20-3 | Naphthalene | ND | | 250 | 186 | 74 | 250 | 278 | 111 | 40* [b] | 70-130/30 |
| 103-65-1 | n-Propylbenzene | ND | | 250 | 297 | 119 | 250 | 275 | 110 | 8 | 70-130/30 |
| 100-42-5 | Styrene | ND | | 250 | 295 | 118 | 250 | 282 | 113 | 5 | 70-130/30 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 250 | 281 | 112 | 250 | 265 | 106 | 6 | 70-130/30 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 250 | 318 | 127 | 250 | 313 | 125 | 2 | 70-130/30 |
| 127-18-4 | Tetrachloroethene | ND | | 250 | 280 | 112 | 250 | 267 | 107 | 5 | 70-130/30 |
| 108-88-3 | Toluene | ND | | 250 | 293 | 117 | 250 | 277 | 111 | 6 | 70-130/30 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 250 | 186 | 74 | 250 | 271 | 108 | 37* [b] | 70-130/30 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 250 | 204 | 82 | 250 | 236 | 94 | 15 | 70-130/30 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 250 | 259 | 104 | 250 | 238 | 95 | 8 | 70-130/30 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 250 | 296 | 118 | 250 | 283 | 113 | 4 | 70-130/30 |
| 79-01-6 | Trichloroethene | ND | | 250 | 255 | 102 | 250 | 242 | 97 | 5 | 70-130/30 |
| 75-69-4 | Trichlorofluoromethane | ND | | 250 | 224 | 90 | 250 | 202 | 81 | 10 | 70-130/30 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 250 | 340 | 136* [a] | 250 | 331 | 132* [a] | 3 | 70-130/30 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 250 | 286 | 114 | 250 | 270 | 108 | 6 | 70-130/30 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 250 | 294 | 118 | 250 | 276 | 110 | 6 | 70-130/30 |
| 108-05-4 | Vinyl Acetate | ND | | 250 | 256 | 102 | 250 | 240 | 96 | 6 | 70-130/30 |
| 75-01-4 | Vinyl chloride | ND | | 250 | 241 | 96 | 250 | 218 | 87 | 10 | 70-130/30 |
| | m,p-Xylene | ND | | 500 | 585 | 117 | 500 | 561 | 112 | 4 | 70-130/30 |
| 95-47-6 | o-Xylene | ND | | 250 | 293 | 117 | 250 | 282 | 113 | 4 | 70-130/30 |
| 1330-20-7 | Xylene (total) | ND | | 750 | 879 | 117 | 750 | 842 | 112 | 4 | 70-130/30 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29904-2MS | V30472.D | 5 | 04/30/14 | AMY | n/a | n/a | MSV1137 |
| MC29904-2MSD | V30473.D | 5 | 04/30/14 | AMY | n/a | n/a | MSV1137 |
| MC29904-2 | V30459.D | 1 | 04/30/14 | AMY | n/a | n/a | MSV1137 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29833-1, MC29833-2, MC29833-3, MC29833-4, MC29833-5

| CAS No. | Surrogate Recoveries | MS | MSD | MC29904-2 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 82% | 80% | 109% | 70-130% |
| 2037-26-5 | Toluene-D8 | 90% | 91% | 95% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 92% | 90% | 92% | 70-130% |

(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.

# Volatile Internal Standard Area Summary



**Job Number:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSV1137-CC1058 | **Injection Date:** | 04/30/14 |
| **Lab File ID:** | V30448.D | **Injection Time:** | 08:24 |
| **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 | 323603 | 6.51 | 458261 | 7.70 | 225342 | 11.05 | 236581 | 13.27 | 45932 | 3.47 |
| Upper Limit [a] | 647206 | 7.01 | 916522 | 8.20 | 450684 | 11.55 | 473162 | 13.77 | 91864 | 3.97 |
| Lower Limit [b] | 161802 | 6.01 | 229131 | 7.20 | 112671 | 10.55 | 118291 | 12.77 | 22966 | 2.97 |

| Lab Sample ID | IS 1 AREA | RT | IS 2 AREA | RT | IS 3 AREA | RT | IS 4 AREA | RT | IS 5 AREA | RT |
|---|---|---|---|---|---|---|---|---|---|---|
| MSV1137-BS | 323603 | 6.51 | 458261 | 7.70 | 225342 | 11.05 | 236581 | 13.27 | 45932 | 3.47 |
| MSV1137-MB | 203264 | 6.52 | 318418 | 7.71 | 167183 | 11.06 | 152396 | 13.27 | 34979 | 3.47 |
| MC29833-5 | 197485 | 6.51 | 313848 | 7.70 | 164701 | 11.06 | 149126 | 13.27 | 33222 | 3.46 |
| ZZZZZZ | 183436 | 6.51 | 289201 | 7.70 | 153665 | 11.06 | 139934 | 13.27 | 33220 | 3.46 |
| ZZZZZZ | 195035 | 6.52 | 308728 | 7.71 | 164755 | 11.06 | 148204 | 13.27 | 32787 | 3.47 |
| MC29833-1 | 271796 | 6.52 | 354198 | 7.71 | 177634 | 11.06 | 154160 | 13.27 | 48662 | 3.48 |
| MC29833-2 | 199586 | 6.52 | 340744 | 7.71 | 165718 | 11.06 | 147960 | 13.27 | 33337 | 3.47 |
| MC29833-3 | 188814 | 6.52 | 325323 | 7.71 | 158240 | 11.06 | 144553 | 13.27 | 32209 | 3.47 |
| MC29833-4 | 194279 | 6.52 | 329861 | 7.71 | 164747 | 11.06 | 146674 | 13.27 | 34316 | 3.47 |
| MC29904-2 | 188172 | 6.51 | 291096 | 7.70 | 160175 | 11.06 | 140384 | 13.27 | 33501 | 3.46 |
| ZZZZZZ | 272446 | 6.52 | 362089 | 7.71 | 196177 | 11.06 | 194669 | 13.27 | 41691 | 3.47 |
| ZZZZZZ | 257664 | 6.52 | 391012 | 7.71 | 190881 | 11.06 | 198815 | 13.27 | 43696 | 3.47 |
| ZZZZZZ | 248271 | 6.52 | 352123 | 7.71 | 168120 | 11.06 | 181550 | 13.27 | 67553 | 3.48 |
| MC29833-1 | 263118 | 6.52 | 391258 | 7.71 | 186410 | 11.06 | 163641 | 13.27 | 44521 | 3.47 |
| MC29833-2 | 207468 | 6.52 | 343567 | 7.71 | 169440 | 11.06 | 159158 | 13.28 | 39019 | 3.47 |
| ZZZZZZ | 281584 | 6.52 | 374095 | 7.71 | 184949 | 11.06 | 187777 | 13.27 | 64591 | 3.48 |
| ZZZZZZ | 292025 | 6.52 | 389699 | 7.71 | 192712 | 11.06 | 194478 | 13.27 | 59087 | 3.48 |
| ZZZZZZ | 303658 | 6.52 | 428230 | 7.71 | 205632 | 11.06 | 204528 | 13.27 | 56912 | 3.47 |
| ZZZZZZ | 444548 | 6.52 | 615604 | 7.71 | 290641 | 11.06 | 270749 | 13.28 | 207281[c] | 3.48 |
| MC29833-3 | 339191 | 6.53 | 520392 | 7.71 | 241917 | 11.06 | 230218 | 13.28 | 54990 | 3.48 |
| ZZZZZZ | 375524 | 6.52 | 507310 | 7.71 | 245317 | 11.06 | 238511 | 13.28 | 63105 | 3.48 |
| MC29904-2MS | 395690 | 6.53 | 566626 | 7.72 | 265884 | 11.06 | 265101 | 13.28 | 59093 | 3.48 |
| MC29904-2MSD | 425589 | 6.53 | 608809 | 7.72 | 281998 | 11.06 | 285473 | 13.28 | 65375 | 3.48 |

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 Surrogate Recovery Summary



**Job Number:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 |
|---|---|---|---|---|
| MC29833-1 | V30463.D | 97 | 88 | 91 |
| MC29833-1 | V30455.D | 82 | 94 | 94 |
| MC29833-2 | V30464.D | 108 | 88 | 88 |
| MC29833-2 | V30456.D | 109 | 87 | 90 |
| MC29833-3 | V30470.D | 87 | 86 | 90 |
| MC29833-3 | V30457.D | 113 | 88 | 89 |
| MC29833-4 | V30458.D | 110 | 89 | 90 |
| MC29833-5 | V30452.D | 107 | 93 | 89 |
| MC29904-2MS | V30472.D | 82 | 90 | 92 |
| MC29904-2MSD | V30473.D | 80 | 91 | 90 |
| MSV1137-BS | V30448.D | 85 | 93 | 90 |
| MSV1137-MB | V30451.D | 104 | 93 | 89 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = Dibromofluoromethane | 70-130% |
| S2 = Toluene-D8 | 70-130% |
| S3 = 4-Bromofluorobenzene | 70-130% |

## GC/MS Semi-volatiles

7

# 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:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37657-MB | R38279.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29833-1, MC29833-2, MC29833-3, MC29833-4



| 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 | 0.31 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 10 | 0.83 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 10 | 0.40 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 10 | 0.56 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 20 | 2.5 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 10 | 0.23 | ug/l | |
| | 3&4-Methylphenol | ND | 10 | 0.47 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 10 | 2.9 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 20 | 0.53 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 10 | 1.1 | ug/l | |
| 108-95-2 | Phenol | ND | 5.0 | 0.30 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 10 | 0.37 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 10 | 0.18 | ug/l | |
| 62-53-3 | Aniline | ND | 10 | 0.64 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.0 | 0.47 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.0 | 0.53 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 10 | 2.3 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.0 | 0.31 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 10 | 0.56 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.0 | 0.29 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.0 | 0.35 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.0 | 0.33 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.0 | 0.25 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.0 | 0.24 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 10 | 0.46 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 10 | 0.30 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.0 | 0.27 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.0 | 0.26 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.68 | 5.0 | 0.17 | ug/l | J |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.0 | 0.28 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.0 | 0.20 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.0 | 0.34 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.0 | 0.33 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.0 | 0.29 | ug/l | |

# Method Blank Summary



**Job Number:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37657-MB | R38279.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29833-1, MC29833-2, MC29833-3, MC29833-4

| 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 | 0.30 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.0 | 0.45 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 0.40 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 1.4 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 2.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.0 | 0.39 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.0 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.0 | 0.40 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.0 | 0.19 | ug/l | |
| 110-86-1 | Pyridine | ND | 10 | 0.52 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 42% | 15-110% |
| 4165-62-2 | Phenol-d5 | 28% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 73% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 72% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 74% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 94% | 30-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile | | 0 | ug/l | |

# Method Blank Summary



**Job Number:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37658-MB | I88679.D | 1 | 04/21/14 | MR | 04/18/14 | OP37658 | MSI3303 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D BY SIM

MC29833-1, MC29833-2, MC29833-3, MC29833-4



| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | ND | 0.10 | 0.069 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.10 | 0.050 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.10 | 0.092 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.050 | 0.020 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.10 | 0.029 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.050 | 0.032 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.10 | 0.027 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.10 | 0.039 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.10 | 0.024 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.10 | 0.032 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.10 | 0.041 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.10 | 0.099 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.10 | 0.031 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.20 | 0.050 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.20 | 0.074 | ug/l | |
| 85-01-8 | Phenanthrene | 0.040 | 0.050 | 0.013 | ug/l | J |
| 129-00-0 | Pyrene | ND | 0.10 | 0.038 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 35% | 15-110% |
| 4165-62-2 | Phenol-d5 | 24% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 78% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 72% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 66% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 93% | 30-130% |

# Blank Spike Summary



**Job Number:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37657-BS | R38280.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29833-1, MC29833-2, MC29833-3, MC29833-4

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | 50 | 10.9 | 22* [a] | 30-130 |
| 95-57-8 | 2-Chlorophenol | 50 | 38.9 | 78 | 30-130 |
| 59-50-7 | 4-Chloro-3-methyl phenol | 50 | 37.0 | 74 | 30-130 |
| 120-83-2 | 2,4-Dichlorophenol | 50 | 40.1 | 80 | 30-130 |
| 105-67-9 | 2,4-Dimethylphenol | 50 | 32.5 | 65 | 30-130 |
| 51-28-5 | 2,4-Dinitrophenol | 50 | 27.8 | 56 | 30-130 |
| 534-52-1 | 4,6-Dinitro-o-cresol | 50 | 38.5 | 77 | 30-130 |
| 95-48-7 | 2-Methylphenol | 50 | 27.6 | 55 | 30-130 |
| | 3&4-Methylphenol | 100 | 53.3 | 53 | 30-130 |
| 88-75-5 | 2-Nitrophenol | 50 | 40.6 | 81 | 30-130 |
| 100-02-7 | 4-Nitrophenol | 50 | 15.8 | 32 | 30-130 |
| 87-86-5 | Pentachlorophenol | 50 | 40.6 | 81 | 30-130 |
| 108-95-2 | Phenol | 50 | 17.6 | 35 | 30-130 |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | 43.4 | 87 | 30-130 |
| 88-06-2 | 2,4,6-Trichlorophenol | 50 | 44.1 | 88 | 30-130 |
| 62-53-3 | Aniline | 50 | 32.3 | 65 | 40-140 |
| 101-55-3 | 4-Bromophenyl phenyl ether | 50 | 46.6 | 93 | 40-140 |
| 85-68-7 | Butyl benzyl phthalate | 50 | 45.1 | 90 | 40-140 |
| 100-51-6 | Benzyl Alcohol | 50 | 29.4 | 59 | 40-140 |
| 91-58-7 | 2-Chloronaphthalene | 50 | 41.1 | 82 | 40-140 |
| 106-47-8 | 4-Chloroaniline | 50 | 35.5 | 71 | 40-140 |
| 111-91-1 | bis(2-Chloroethoxy)methane | 50 | 38.2 | 76 | 40-140 |
| 111-44-4 | bis(2-Chloroethyl)ether | 50 | 42.3 | 85 | 40-140 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 50 | 44.6 | 89 | 40-140 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 50 | 43.1 | 86 | 40-140 |
| 122-66-7 | 1,2-Diphenylhydrazine | 50 | 39.9 | 80 | 40-140 |
| 121-14-2 | 2,4-Dinitrotoluene | 50 | 45.7 | 91 | 40-140 |
| 606-20-2 | 2,6-Dinitrotoluene | 50 | 44.0 | 88 | 40-140 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 50 | 36.1 | 72 | 40-140 |
| 132-64-9 | Dibenzofuran | 50 | 39.9 | 80 | 40-140 |
| 84-74-2 | Di-n-butyl phthalate | 50 | 43.5 | 87 | 40-140 |
| 117-84-0 | Di-n-octyl phthalate | 50 | 47.3 | 95 | 40-140 |
| 84-66-2 | Diethyl phthalate | 50 | 44.0 | 88 | 40-140 |
| 131-11-3 | Dimethyl phthalate | 50 | 44.1 | 88 | 40-140 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 50 | 45.9 | 92 | 40-140 |
| 118-74-1 | Hexachlorobenzene | 50 | 45.0 | 90 | 40-140 |

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37657-BS | R38280.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29833-1, MC29833-2, MC29833-3, MC29833-4

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 77-47-4 | Hexachlorocyclopentadiene | 50 | 22.9 | 46 | 40-140 |
| 67-72-1 | Hexachloroethane | 50 | 24.0 | 48 | 40-140 |
| 78-59-1 | Isophorone | 50 | 36.2 | 72 | 40-140 |
| 88-74-4 | 2-Nitroaniline | 50 | 43.7 | 87 | 40-140 |
| 99-09-2 | 3-Nitroaniline | 50 | 39.6 | 79 | 40-140 |
| 100-01-6 | 4-Nitroaniline | 50 | 41.3 | 83 | 40-140 |
| 98-95-3 | Nitrobenzene | 50 | 36.6 | 73 | 40-140 |
| 62-75-9 | n-Nitrosodimethylamine | 50 | 28.7 | 57 | 40-140 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 50 | 36.7 | 73 | 40-140 |
| 86-30-6 | N-Nitrosodiphenylamine | 50 | 40.9 | 82 | 40-140 |
| 110-86-1 | Pyridine | 50 | 27.1 | 54 | 40-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 55% | 15-110% |
| 4165-62-2 | Phenol-d5 | 33% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 91% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 79% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 83% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 96% | 30-130% |

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37658-BS | I88680.D | 1 | 04/21/14 | MR | 04/18/14 | OP37658 | MSI3303 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D BY SIM

MC29833-1, MC29833-2, MC29833-3, MC29833-4

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 50 | 36.9 | 74 | 40-140 |
| 208-96-8 | Acenaphthylene | 50 | 34.0 | 68 | 40-140 |
| 120-12-7 | Anthracene | 50 | 37.4 | 75 | 40-140 |
| 56-55-3 | Benzo(a)anthracene | 50 | 41.3 | 83 | 40-140 |
| 50-32-8 | Benzo(a)pyrene | 50 | 39.5 | 79 | 40-140 |
| 205-99-2 | Benzo(b)fluoranthene | 50 | 41.4 | 83 | 40-140 |
| 191-24-2 | Benzo(g,h,i)perylene | 50 | 45.0 | 90 | 40-140 |
| 207-08-9 | Benzo(k)fluoranthene | 50 | 42.8 | 86 | 40-140 |
| 218-01-9 | Chrysene | 50 | 39.3 | 79 | 40-140 |
| 53-70-3 | Dibenzo(a,h)anthracene | 50 | 47.7 | 95 | 40-140 |
| 206-44-0 | Fluoranthene | 50 | 42.5 | 85 | 40-140 |
| 86-73-7 | Fluorene | 50 | 39.9 | 80 | 40-140 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 50 | 45.9 | 92 | 40-140 |
| 90-12-0 | 1-Methylnaphthalene | 50 | 33.5 | 67 | 40-140 |
| 91-57-6 | 2-Methylnaphthalene | 50 | 32.4 | 65 | 40-140 |
| 85-01-8 | Phenanthrene | 50 | 38.4 | 77 | 40-140 |
| 129-00-0 | Pyrene | 50 | 40.9 | 82 | 40-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 39% | 15-110% |
| 4165-62-2 | Phenol-d5 | 25% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 87% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 77% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 75% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 96% | 30-130% |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: MC29833
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37657-MS | R38281.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |
| OP37657-MSD | R38282.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |
| MC29400-19 | R38283.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |

The QC reported here applies to the following samples: Method: SW846 8270D

MC29833-1, MC29833-2, MC29833-3, MC29833-4

| CAS No. | Compound | MC29400-19 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 | 12.7 | 25* [a] | 50 | 12.9 | 26* [a] | 2 | 30-130/20 |
| 95-57-8 | 2-Chlorophenol | ND | | 50 | 36.2 | 72 | 50 | 34.3 | 69 | 5 | 30-130/20 |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | | 50 | 39.3 | 79 | 50 | 36.7 | 73 | 7 | 30-130/20 |
| 120-83-2 | 2,4-Dichlorophenol | ND | | 50 | 41.7 | 83 | 50 | 39.0 | 78 | 7 | 30-130/20 |
| 105-67-9 | 2,4-Dimethylphenol | ND | | 50 | 33.8 | 68 | 50 | 30.1 | 60 | 12 | 30-130/20 |
| 51-28-5 | 2,4-Dinitrophenol | ND | | 50 | 30.7 | 61 | 50 | 30.9 | 62 | 1 | 30-130/20 |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | | 50 | 41.6 | 83 | 50 | 41.0 | 82 | 1 | 30-130/20 |
| 95-48-7 | 2-Methylphenol | ND | | 50 | 30.6 | 61 | 50 | 28.3 | 57 | 8 | 30-130/20 |
| | 3&4-Methylphenol | ND | | 100 | 60.6 | 61 | 100 | 54.5 | 55 | 11 | 30-130/20 |
| 88-75-5 | 2-Nitrophenol | ND | | 50 | 43.2 | 86 | 50 | 39.0 | 78 | 10 | 30-130/20 |
| 100-02-7 | 4-Nitrophenol | ND | | 50 | 16.1 | 32 | 50 | 15.7 | 31 | 3 | 30-130/20 |
| 87-86-5 | Pentachlorophenol | ND | | 50 | 41.5 | 83 | 50 | 40.0 | 80 | 4 | 30-130/20 |
| 108-95-2 | Phenol | ND | | 50 | 15.5 | 31 | 50 | 14.7 | 29* [b] | 5 | 30-130/20 |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | | 50 | 44.6 | 89 | 50 | 41.6 | 83 | 7 | 30-130/20 |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | | 50 | 44.9 | 90 | 50 | 42.6 | 85 | 5 | 30-130/20 |
| 62-53-3 | Aniline | ND | | 50 | 29.4 | 59 | 50 | 28.4 | 57 | 3 | 40-140/20 |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | | 50 | 47.5 | 95 | 50 | 46.1 | 92 | 3 | 40-140/20 |
| 85-68-7 | Butyl benzyl phthalate | ND | | 50 | 46.0 | 92 | 50 | 44.7 | 89 | 3 | 40-140/20 |
| 100-51-6 | Benzyl Alcohol | ND | | 50 | 33.9 | 68 | 50 | 30.8 | 62 | 10 | 40-140/20 |
| 91-58-7 | 2-Chloronaphthalene | ND | | 50 | 44.0 | 88 | 50 | 40.5 | 81 | 8 | 40-140/20 |
| 106-47-8 | 4-Chloroaniline | ND | | 50 | 37.5 | 75 | 50 | 34.4 | 69 | 9 | 40-140/20 |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | | 50 | 39.8 | 80 | 50 | 37.1 | 74 | 7 | 40-140/20 |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | | 50 | 37.1 | 74 | 50 | 36.8 | 74 | 1 | 40-140/20 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | | 50 | 47.7 | 95 | 50 | 46.5 | 93 | 3 | 40-140/20 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | | 50 | 44.7 | 89 | 50 | 42.6 | 85 | 5 | 40-140/20 |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | | 50 | 41.1 | 82 | 50 | 40.1 | 80 | 2 | 40-140/20 |
| 121-14-2 | 2,4-Dinitrotoluene | ND | | 50 | 47.6 | 95 | 50 | 45.5 | 91 | 5 | 40-140/20 |
| 606-20-2 | 2,6-Dinitrotoluene | ND | | 50 | 45.3 | 91 | 50 | 43.5 | 87 | 4 | 40-140/20 |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | | 50 | 38.1 | 76 | 50 | 37.7 | 75 | 1 | 40-140/20 |
| 132-64-9 | Dibenzofuran | ND | | 50 | 40.9 | 82 | 50 | 39.3 | 79 | 4 | 40-140/20 |
| 84-74-2 | Di-n-butyl phthalate | 0.73 | J | 50 | 44.7 | 88 | 50 | 43.1 | 85 | 4 | 40-140/20 |
| 117-84-0 | Di-n-octyl phthalate | ND | | 50 | 47.4 | 95 | 50 | 45.6 | 91 | 4 | 40-140/20 |
| 84-66-2 | Diethyl phthalate | ND | | 50 | 45.5 | 91 | 50 | 44.3 | 89 | 3 | 40-140/20 |
| 131-11-3 | Dimethyl phthalate | ND | | 50 | 45.9 | 92 | 50 | 44.3 | 89 | 4 | 40-140/20 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | | 50 | 46.9 | 94 | 50 | 45.5 | 91 | 3 | 40-140/20 |
| 118-74-1 | Hexachlorobenzene | ND | | 50 | 46.3 | 93 | 50 | 44.6 | 89 | 4 | 40-140/20 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37657-MS | R38281.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |
| OP37657-MSD | R38282.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |
| MC29400-19 | R38283.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29833-1, MC29833-2, MC29833-3, MC29833-4



| CAS No. | Compound | MC29400-19 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 | 24.0 | 48 | 50 | 22.1 | 44 | 8 | 40-140/20 |
| 67-72-1 | Hexachloroethane | ND | | 50 | 27.4 | 55 | 50 | 26.3 | 53 | 4 | 40-140/20 |
| 78-59-1 | Isophorone | ND | | 50 | 38.0 | 76 | 50 | 36.4 | 73 | 4 | 40-140/20 |
| 88-74-4 | 2-Nitroaniline | ND | | 50 | 45.4 | 91 | 50 | 43.8 | 88 | 4 | 40-140/20 |
| 99-09-2 | 3-Nitroaniline | ND | | 50 | 41.5 | 83 | 50 | 39.2 | 78 | 6 | 40-140/20 |
| 100-01-6 | 4-Nitroaniline | ND | | 50 | 41.9 | 84 | 50 | 40.4 | 81 | 4 | 40-140/20 |
| 98-95-3 | Nitrobenzene | ND | | 50 | 37.9 | 76 | 50 | 36.1 | 72 | 5 | 40-140/20 |
| 62-75-9 | n-Nitrosodimethylamine | ND | | 50 | 31.0 | 62 | 50 | 30.3 | 61 | 2 | 40-140/20 |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | | 50 | 41.4 | 83 | 50 | 37.7 | 75 | 9 | 40-140/20 |
| 86-30-6 | N-Nitrosodiphenylamine | ND | | 50 | 41.8 | 84 | 50 | 40.2 | 80 | 4 | 40-140/20 |
| 110-86-1 | Pyridine | ND | | 50 | 29.2 | 58 | 50 | 28.9 | 58 | 1 | 40-140/20 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29400-19 | Limits |
|---|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 45% | 47% | 38% | 15-110% |
| 4165-62-2 | Phenol-d5 | 30% | 28% | 24% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 91% | 89% | 74% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 76% | 74% | 72% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 84% | 78% | 64% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 93% | 91% | 90% | 30-130% |

(a) Outside control limits. Blank Spike meets program technical requirements.
(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: MC29833
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37658-MS | I88681.D | 1 | 04/21/14 | MR | 04/18/14 | OP37658 | MSI3303 |
| OP37658-MSD | I88682.D | 1 | 04/21/14 | MR | 04/18/14 | OP37658 | MSI3303 |
| MC29400-20 | I88683.D | 1 | 04/21/14 | MR | 04/18/14 | OP37658 | MSI3303 |

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC29833-1, MC29833-2, MC29833-3, MC29833-4



| CAS No. | Compound | MC29400-20 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 | 38.0 | 76 | 50 | 36.3 | 73 | 5 | 40-140/20 |
| 208-96-8 | Acenaphthylene | ND | | 50 | 34.9 | 70 | 50 | 33.4 | 67 | 4 | 40-140/20 |
| 120-12-7 | Anthracene | ND | | 50 | 37.4 | 75 | 50 | 36.8 | 74 | 2 | 40-140/20 |
| 56-55-3 | Benzo(a)anthracene | ND | | 50 | 42.1 | 84 | 50 | 41.1 | 82 | 2 | 40-140/20 |
| 50-32-8 | Benzo(a)pyrene | ND | | 50 | 39.6 | 79 | 50 | 38.6 | 77 | 3 | 40-140/20 |
| 205-99-2 | Benzo(b)fluoranthene | ND | | 50 | 43.4 | 87 | 50 | 41.8 | 84 | 4 | 40-140/20 |
| 191-24-2 | Benzo(g,h,i)perylene | ND | | 50 | 45.4 | 91 | 50 | 44.3 | 89 | 2 | 40-140/20 |
| 207-08-9 | Benzo(k)fluoranthene | ND | | 50 | 42.0 | 84 | 50 | 41.3 | 83 | 2 | 40-140/20 |
| 218-01-9 | Chrysene | ND | | 50 | 40.2 | 80 | 50 | 39.5 | 79 | 2 | 40-140/20 |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | | 50 | 48.0 | 96 | 50 | 46.7 | 93 | 3 | 40-140/20 |
| 206-44-0 | Fluoranthene | ND | | 50 | 43.1 | 86 | 50 | 41.7 | 83 | 3 | 40-140/20 |
| 86-73-7 | Fluorene | ND | | 50 | 40.2 | 80 | 50 | 39.3 | 79 | 2 | 40-140/20 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | | 50 | 46.2 | 92 | 50 | 45.0 | 90 | 3 | 40-140/20 |
| 90-12-0 | 1-Methylnaphthalene | ND | | 50 | 35.4 | 71 | 50 | 33.5 | 67 | 6 | 40-140/20 |
| 91-57-6 | 2-Methylnaphthalene | ND | | 50 | 34.2 | 68 | 50 | 32.5 | 65 | 5 | 40-140/20 |
| 85-01-8 | Phenanthrene | ND | | 50 | 38.2 | 76 | 50 | 37.1 | 74 | 3 | 40-140/20 |
| 129-00-0 | Pyrene | ND | | 50 | 42.0 | 84 | 50 | 40.4 | 81 | 4 | 40-140/20 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29400-20 | Limits |
|---|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 38% | 38% | 33% | 15-110% |
| 4165-62-2 | Phenol-d5 | 26% | 24% | 22% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 85% | 83% | 76% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 76% | 73% | 67% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 75% | 72% | 61% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 94% | 92% | 89% | 30-130% |

* = Outside of Control Limits.

# Semivolatile Internal Standard Area Summary



**Job Number:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSI3303-CC3238 | **Injection Date:** | 04/21/14 |
| **Lab File ID:** | I88677.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 | 263580 | 3.97 | 615489 | 5.02 | 360317 | 6.54 | 617721 | 7.91 | 446343 | 10.69 | 1103240 | 12.16 |
| Upper Limit [a] | 527160 | 4.47 | 1230978 | 5.52 | 720634 | 7.04 | 1235442 | 8.41 | 892686 | 11.19 | 2206480 | 12.66 |
| Lower Limit [b] | 131790 | 3.47 | 307745 | 4.52 | 180159 | 6.04 | 308861 | 7.41 | 223172 | 10.19 | 551620 | 11.66 |

| 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 | 296697 | 3.97 | 681645 | 5.02 | 409354 | 6.54 | 692527 | 7.91 | 498806 | 10.69 | 1246718 | 12.17 |
| OP37658-MB | 305575 | 3.97 | 715366 | 5.02 | 422793 | 6.54 | 710683 | 7.91 | 520447 | 10.69 | 1298502 | 12.17 |
| OP37658-BS | 299871 | 3.98 | 693087 | 5.02 | 401596 | 6.55 | 670124 | 7.92 | 489040 | 10.69 | 1170448 | 12.17 |
| OP37658-MS | 288985 | 3.97 | 683969 | 5.02 | 397025 | 6.54 | 667934 | 7.92 | 481210 | 10.69 | 1168091 | 12.17 |
| OP37658-MSD | 295308 | 3.98 | 689546 | 5.02 | 402201 | 6.54 | 673506 | 7.92 | 489209 | 10.69 | 1187613 | 12.17 |
| MC29400-20 | 283311 | 3.97 | 670168 | 5.02 | 390149 | 6.54 | 658059 | 7.91 | 471554 | 10.69 | 1168718 | 12.16 |
| ZZZZZZ | 290645 | 3.97 | 685599 | 5.02 | 397290 | 6.54 | 672085 | 7.91 | 480521 | 10.69 | 1196916 | 12.16 |
| ZZZZZZ | 302113 | 3.97 | 711607 | 5.02 | 410128 | 6.54 | 688701 | 7.91 | 493553 | 10.69 | 1215626 | 12.17 |
| MC29833-1 | 286241 | 3.97 | 682797 | 5.02 | 394750 | 6.54 | 669422 | 7.91 | 478585 | 10.69 | 1182887 | 12.16 |
| MC29833-2 | 295642 | 3.98 | 696807 | 5.02 | 398930 | 6.54 | 666871 | 7.91 | 476789 | 10.69 | 1182312 | 12.17 |
| MC29833-3 | 285543 | 3.98 | 672895 | 5.02 | 382809 | 6.54 | 629632 | 7.91 | 454825 | 10.69 | 1115295 | 12.16 |
| MC29833-4 | 315665 | 3.98 | 737174 | 5.02 | 419700 | 6.54 | 693089 | 7.91 | 488621 | 10.69 | 1204401 | 12.16 |
| ZZZZZZ | 292439 | 3.97 | 676938 | 5.02 | 398787 | 6.54 | 667728 | 7.91 | 482467 | 10.69 | 1190658 | 12.17 |
| ZZZZZZ | 277505 | 3.98 | 649163 | 5.02 | 375932 | 6.54 | 632184 | 7.91 | 446466 | 10.69 | 1105543 | 12.16 |
| ZZZZZZ | 281677 | 3.98 | 653540 | 5.02 | 382818 | 6.54 | 642708 | 7.91 | 464204 | 10.69 | 1120329 | 12.16 |

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:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSR1411-CC1410 | **Injection Date:** | 04/21/14 |
| **Lab File ID:** | R38278.D | **Injection Time:** | 09:41 |
| **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 | 119472 | 5.41 | 428450 | 6.51 | 266822 | 8.04 | 473515 | 9.35 | 453402 | 11.94 | 394254 | 13.65 |
| Upper Limit [a] | 238944 | 5.91 | 856900 | 7.01 | 533644 | 8.54 | 947030 | 9.85 | 906804 | 12.44 | 788508 | 14.15 |
| Lower Limit [b] | 59736 | 4.91 | 214225 | 6.01 | 133411 | 7.54 | 236758 | 8.85 | 226701 | 11.44 | 197127 | 13.15 |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OP37657-MB | 135006 | 5.41 | 489741 | 6.50 | 305204 | 8.04 | 538899 | 9.34 | 507315 | 11.94 | 444856 | 13.64 |
| OP37657-BS | 140201 | 5.41 | 472614 | 6.51 | 294251 | 8.04 | 514369 | 9.34 | 489336 | 11.94 | 421199 | 13.64 |
| OP37657-MS | 129939 | 5.41 | 469854 | 6.51 | 292550 | 8.04 | 512441 | 9.35 | 493469 | 11.94 | 427015 | 13.64 |
| OP37657-MSD | 130477 | 5.41 | 462134 | 6.51 | 290257 | 8.04 | 506022 | 9.34 | 486758 | 11.94 | 428401 | 13.64 |
| MC29400-19 | 163993 | 5.41 | 581099 | 6.50 | 337715 | 8.04 | 570831 | 9.34 | 548258 | 11.94 | 487442 | 13.64 |
| ZZZZZZ | 140523 | 5.41 | 451574 | 6.50 | 276508 | 8.04 | 492814 | 9.34 | 472387 | 11.94 | 415079 | 13.64 |
| ZZZZZZ | 152519 | 5.41 | 538696 | 6.50 | 346124 | 8.04 | 551955 | 9.34 | 493276 | 11.94 | 446137 | 13.64 |
| ZZZZZZ | 172189 | 5.41 | 615115 | 6.50 | 384310 | 8.04 | 672587 | 9.34 | 537100 | 11.94 | 481945 | 13.64 |
| ZZZZZZ | 167452 | 5.41 | 605031 | 6.50 | 343233 | 8.04 | 578386 | 9.34 | 551960 | 11.93 | 472241 | 13.64 |
| MC29833-1 | 167281 | 5.41 | 605849 | 6.50 | 380770 | 8.04 | 667012 | 9.34 | 610631 | 11.94 | 483373 | 13.64 |
| MC29833-2 | 175930 | 5.41 | 631190 | 6.50 | 393521 | 8.04 | 658956 | 9.34 | 560351 | 11.94 | 472653 | 13.64 |
| MC29833-3 | 176994 | 5.41 | 635207 | 6.50 | 402564 | 8.04 | 700721 | 9.34 | 641216 | 11.94 | 558555 | 13.64 |
| MC29833-4 | 137173 | 5.41 | 488477 | 6.50 | 303663 | 8.04 | 535300 | 9.34 | 519084 | 11.94 | 466318 | 13.64 |
| ZZZZZZ | 121079 | 5.41 | 439990 | 6.50 | 279915 | 8.04 | 487787 | 9.34 | 465322 | 11.94 | 413815 | 13.64 |

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:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 |
|---|---|---|---|---|---|---|---|
| MC29833-1 | R38288.D | 46 | 29 | 89 | 77 | 78 | 95 |
| MC29833-2 | R38289.D | 51 | 32 | 97 | 76 | 79 | 94 |
| MC29833-3 | R38290.D | 50 | 31 | 90 | 76 | 75 | 90 |
| MC29833-4 | R38291.D | 60 | 31 | 89 | 72 | 76 | 88 |
| OP37657-BS | R38280.D | 55 | 33 | 91 | 79 | 83 | 96 |
| OP37657-MB | R38279.D | 42 | 28 | 73 | 72 | 74 | 94 |
| OP37657-MS | R38281.D | 45 | 30 | 91 | 76 | 84 | 93 |
| OP37657-MSD | R38282.D | 47 | 28 | 89 | 74 | 78 | 91 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = 2-Fluorophenol | 15-110% |
| S2 = Phenol-d5 | 15-110% |
| S3 = 2,4,6-Tribromophenol | 15-110% |
| S4 = Nitrobenzene-d5 | 30-130% |
| S5 = 2-Fluorobiphenyl | 30-130% |
| S6 = Terphenyl-d14 | 30-130% |

# Semivolatile Surrogate Recovery Summary



**Job Number:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 |
|---|---|---|---|---|
| MC29833-1 | I88686.D | 71 | 70 | 94 |
| MC29833-2 | I88687.D | 72 | 72 | 93 |
| MC29833-3 | I88688.D | 72 | 70 | 89 |
| MC29833-4 | I88689.D | 72 | 68 | 92 |
| OP37658-BS | I88680.D | 77 | 75 | 96 |
| OP37658-MB | I88679.D | 72 | 66 | 93 |
| OP37658-MS | I88681.D | 76 | 75 | 94 |
| OP37658-MSD | I88682.D | 73 | 72 | 92 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = Nitrobenzene-d5 | 30-130% |
| S2 = 2-Fluorobiphenyl | 30-130% |
| S3 = Terphenyl-d14 | 30-130% |

## 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:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37671-MB | BB55406.D | 1 | 04/21/14 | SZ | 04/18/14 | OP37671 | GBB3222 |

**The QC reported here applies to the following samples:** **Method:** SW846 8011

MC29833-1, MC29833-2, MC29833-3, MC29833-4, MC29833-6

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.015 | 0.0054 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.015 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 85% | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 87% | 36-173% |

# Blank Spike Summary



**Job Number:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37671-BS | BB55407.D | 1 | 04/21/14 | SZ | 04/18/14 | OP37671 | GBB3222 |

**The QC reported here applies to the following samples:** **Method:** SW846 8011

MC29833-1, MC29833-2, MC29833-3, MC29833-4, MC29833-6

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 0.071 | 0.063 | 89 | 60-140 |
| 106-93-4 | 1,2-Dibromoethane | 0.071 | 0.064 | 90 | 60-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 93% | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 96% | 36-173% |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37671-MS | BB55408.D | 1 | 04/21/14 | SZ | 04/18/14 | OP37671 | GBB3222 |
| OP37671-MSD | BB55409.D | 1 | 04/21/14 | SZ | 04/18/14 | OP37671 | GBB3222 |
| MC29400-22 | BB55410.D | 1 | 04/21/14 | SZ | 04/18/14 | OP37671 | GBB3222 |

**The QC reported here applies to the following samples:** **Method:** SW846 8011

MC29833-1, MC29833-2, MC29833-3, MC29833-4, MC29833-6

| CAS No. | Compound | MC29400-22 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 | 0.065 | 92 | 0.071 | 0.082 | 115 | 23 | 64-141/29 |
| 106-93-4 | 1,2-Dibromoethane | ND | | 0.071 | 0.068 | 96 | 0.071 | 0.081 | 114 | 17 | 63-163/27 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29400-22 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 92% | 111% | 105% | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 95% | 115% | 109% | 36-173% |

* = Outside of Control Limits.

# Volatile Surrogate Recovery Summary



**Job Number:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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] |
|---|---|---|---|
| MC29833-1 | BB55419.D | 75 | 79 |
| MC29833-2 | BB55420.D | 80 | 94 |
| MC29833-3 | BB55421.D | 90 | 109 |
| MC29833-4 | BB55422.D | 65 | 73 |
| MC29833-6 | BB55423.D | 79 | 86 |
| OP37671-BS | BB55407.D | 93 | 96 |
| OP37671-MB | BB55406.D | 85 | 87 |
| OP37671-MS | BB55408.D | 92 | 95 |
| OP37671-MSD | BB55409.D | 111 | 115 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = Bromofluorobenzene (S) | 36-173% |

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

# GC Surrogate Retention Time Summary



**Job Number:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | GBB3222-ICC3222 | **Injection Date:** | 04/21/14 |
| **Lab File ID:** | BB55402.D | **Injection Time:** | 15:30 |
| **Instrument ID:** | GCBB | **Method:** | SW846 8011 |

| | S1 [a] RT | S1 [b] RT |
|---|---|---|
| Check Std | 4.30 | 4.60 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 [a] RT | S1 [b] RT |
|---|---|---|---|---|---|
| OP37671-MB | BB55406.D | 04/21/14 | 17:09 | 4.30 | 4.60 |
| OP37671-BS | BB55407.D | 04/21/14 | 17:34 | 4.30 | 4.60 |
| OP37671-MS | BB55408.D | 04/21/14 | 17:59 | 4.30 | 4.60 |
| OP37671-MSD | BB55409.D | 04/21/14 | 18:23 | 4.30 | 4.60 |
| MC29400-22 | BB55410.D | 04/21/14 | 18:48 | 4.30 | 4.60 |
| ZZZZZZ | BB55411.D | 04/21/14 | 19:13 | 4.30 | 4.60 |
| ZZZZZZ | BB55412.D | 04/21/14 | 19:38 | 4.30 | 4.60 |
| ZZZZZZ | BB55413.D | 04/21/14 | 20:03 | 4.30 | 4.60 |
| ZZZZZZ | BB55414.D | 04/21/14 | 20:29 | 4.30 | 4.60 |
| ZZZZZZ | BB55415.D | 04/21/14 | 20:56 | 4.30 | 4.60 |

**Surrogate Compounds**

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

# GC Surrogate Retention Time Summary



**Job Number:** MC29833
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | GBB3222-CC3222 | **Injection Date:** | 04/21/14 |
| **Lab File ID:** | BB55416.D | **Injection Time:** | 21:25 |
| **Instrument ID:** | GCBB | **Method:** | SW846 8011 |

| | S1 [a] RT | S1 [b] RT |
|---|---|---|
| Check Std | 4.30 | 4.60 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 [a] RT | S1 [b] RT |
|---|---|---|---|---|---|
| ZZZZZZ | BB55417.D | 04/21/14 | 21:54 | 4.30 | 4.60 |
| ZZZZZZ | BB55418.D | 04/21/14 | 22:24 | 4.30 | 4.60 |
| MC29833-1 | BB55419.D | 04/21/14 | 22:53 | 4.30 | 4.60 |
| MC29833-2 | BB55420.D | 04/21/14 | 23:22 | 4.30 | 4.60 |
| MC29833-3 | BB55421.D | 04/21/14 | 23:51 | 4.30 | 4.60 |
| MC29833-4 | BB55422.D | 04/22/14 | 00:21 | 4.30 | 4.60 |
| MC29833-6 | BB55423.D | 04/22/14 | 00:49 | 4.30 | 4.60 |
| ZZZZZZ | BB55424.D | 04/22/14 | 01:18 | 4.30 | 4.60 |
| ZZZZZZ | BB55425.D | 04/22/14 | 01:46 | 4.30 | 4.60 |
| ZZZZZZ | BB55426.D | 04/22/14 | 02:14 | 4.30 | 4.60 |

**Surrogate Compounds**

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

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*e-Hardcopy 2.0*
*Automated Report*

# Technical Report for

## Shell Oil

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana,

SGS Accutest Job Number: MC29882

Sampling Date: 04/17/14



Report to:

AECOM, INC.

Melissa.mansker@aecom.com

ATTN: Melissa Mansker

Total number of pages in report: 104

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.

H. (Brad) Madadian
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO (MA00136) MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.



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SGS ACCUTEST

November 01, 2016

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

RE: SGS Accutest Job # MC29882

Dear Elizabeth Kunkel

As you are aware, SGS Accutest Inc. - Marlborough has been conducting an extensive review of data associated with some historical Gas Chromatography-Mass Spectroscopy volatiles analyses. As a result of this review it was determined that some revisions of the original test report for this job were needed. These corrections have been incorporated into the revised report.

Please be assured that corrective actions have been put in place to address this matter and prevent a recurrence.

We apologize for any inconvenience that this issue may have caused. Please don't hesitate to contact us if we can be of further assistance.

Sincerely,

**H. (Brad) Madadian**

Regional Laboratory Director
SGS Accutest Inc. - Marlborough

SGS ACCUTEST IS PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

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# Sample Summary

Shell Oil

Job No: MC29882

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample Number | Collected Date | Time | By | Received | Matrix Code | Type | Client Sample ID |
|---|---|---|---|---|---|---|---|
| MC29882-1 | 04/17/14 | 10:35 | DMDH | 04/18/14 | AQ | Ground Water | P93C-ROX-041714 |
| MC29882-2 | 04/17/14 | 11:45 | DMDH | 04/18/14 | AQ | Ground Water | P93A-ROX-041714 |
| MC29882-3 | 04/17/14 | 15:05 | DMDH | 04/18/14 | AQ | Ground Water | P93B-ROX-041714 |
| MC29882-4 | 04/17/14 | 15:05 | DMDH | 04/18/14 | AQ | Ground Water | P93B-ROX-041714-DUP |
| MC29882-5 | 04/17/14 | 00:00 | DMDH | 04/18/14 | AQ | Trip Blank Water | TB-ROX-041714-HCL |
| MC29882-6 | 04/17/14 | 00:00 | DMDH | 04/18/14 | AQ | Trip Blank Water | TB-ROX-041714-ST |

# SAMPLE DELIVERY GROUP CASE NARRATIVE



**Client:** She O **Job No** MC29882

**Site:** URSMOSTL:Roxana 2Q 4 GW/ 2 562973 03002 900 South Centra **Report Date** / /20 6 5: 3: 4 PM

4 Samp e(s), 2 Tr p B ank(s) and 0 F e d B ank(s) were co ected on 04/ 7/20 4 and were rece ved at SGS Accutest New Eng and on 04/ 8/20 4 proper y preserved, at 0 7 Deg C and ntact These Samp es rece ved a job number of MC29882 A st ng of the Laboratory Samp e ID, C ent Samp e ID and dates of co ect on are presented n the Resu ts Summary Sect on of th s repo t - Ch orohexane, Benzeneth o , D benz(a,h)acr d ne, Indene and Qu no ne were searched n the brary search and reported on y f detect ons were found

Except as noted be ow, a method spec f ed ca brat ons and qua ty contro performance cr ter a were met for th s job For more nformat on, p ease refer to QC summary pages

## Volatiles by GCMS By Method SW846 8260C

**Matrix:** AQ **Batch ID:** MSV 37

- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29904-2MS, MC29904-2MSD were used as the QC samp es nd cated
- A method b anks for th s batch meet method spec f c cr ter a
- Matr x Sp ke/Matr x Sp ke Dup cate Recovery(s) for ,2,3-Tr ch oropropane, 2-Ch oroethy v ny ether, D ch orod f uoromethane are outs de contro m ts Outs de contro m ts due to poss b e matr x nterference
- Recovery(s) for ,2,3-Tr ch oropropane, 2-Ch oroethy v ny ether, D ch orod f uoromethane are outs de contro m ts Probab e cause due to matr x nterference
- RPD(s) for MSD for ,2,3-Tr ch orobenzene, Naphtha ene are outs de contro m ts for samp e MC29904-2MSD H gh RPD due to poss b e matr x nterference and/or samp e non-homogene ty
- D ch orod f uoromethane, 2-Ch oroethy v ny ether: Cont nu ng Ca brat on Ver f cat on outs de of acceptance cr ter a Samp e resu t may be b ased ow

**Matrix:** AQ **Batch ID:** MSV 39

- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29882- MS, MC29882- MSD were used as the QC samp es nd cated
- A method b anks for th s batch meet method spec f c cr ter a
- Matr x Sp ke Recovery(s) for ,2,3-Tr ch orobenzene, ,2,3-Tr ch oropropane, ,2,4-Tr ch orobenzene, 2-Ch oroethy v ny ether, Acetone, Naphtha ene are outs de contro m ts Outs de contro m ts due to poss b e matr x nte ference Refer to B ank Sp ke
- Matr x Sp ke Dup cate Recovery(s) for 2-Ch oroethy v ny ether, Acetone are outs de contro m ts Probab e cause due to matr x nterference
- RPD(s) for MSD for ,2,3-Tr ch orobenzene, Naphtha ene are outs de contro m ts for samp e MC29882- MSD H gh RPD due to poss b e matr x nterference and/or samp e non-homogene ty

## Extractables by GCMS By Method SW846 8270D

**Matrix:** AQ **Batch ID:** OP37657

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29400- 9MS, MC29400- 9MSD were used as the QC samp es nd cated
- Samp e(s) MC29882-3, MC29882-4 have compound(s) repo ted w th a "B" qua f er, nd cat ng ana yte s found n the assoc ated method b ank
- B ank Sp ke Recove y(s) for Benzo c Ac d are outs de contro m ts
- Matr x Sp ke Recovery(s) for Benzo c Ac d are outs de contro m ts Probab e cause due to matr x nterference
- Matr x Sp ke Dup cate Recovery(s) for Benzo c Ac d, Pheno are outs de contro m ts Probab e cause due to matr x nterference

**Matrix:** AQ **Batch ID:** OP3768

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29400-26MS, MC29400-26MSD were used as the QC samp es nd cated
- Samp e(s) MC29882- have compound(s) repo ted w th a "B" qua f er, nd cat ng ana yte s found n the assoc ated method b ank
- B ank Sp ke Recove y(s) for 4-N tropheno , Benzo c Ac d, Pheno are outs de contro m ts
- Matr x Sp ke Recovery(s) for Hexach orocyc opentad ene, Pyr d ne, 4-N tropheno , Benzo c Ac d, Pheno are outs de contro m ts Outs de contro m ts due to poss b e matr x nterference Refer to B ank Sp ke
- Matr x Sp ke Dup cate Recovery(s) for 4-N tropheno , Benzo c Ac d, Pheno , Pyr d ne are outs de contro m ts Probab e cause due to matr x nterference

## Extractables by GCMS By Method SW846 8270D BY SIM

**Matrix:** AQ **Batch ID:** OP37658

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29400-20MS, MC29400-20MSD were used as the QC samp es nd cated
- Samp e(s) MC29882-2 have compound(s) repo ted w th a "B" qua f er, nd cat ng ana yte s found n the assoc ated method b ank

**Matrix:** AQ **Batch ID:** OP37682

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- A method b anks for th s batch meet method spec f c cr ter a
- Samp e(s) MC29400-27MS, MC29400-27MSD were used as the QC samp es nd cated

## Volatiles by GC By Method SW846 8011

**Matrix:** AQ **Batch ID:** OP3767

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29400-22MS, MC29400-22MSD were used as the QC samp es nd cated
- A method b anks for th s batch meet method spec f c cr ter a

SGS Accutest New Eng and ce t f es that a ana ys s were performed w th n method spec f cat on It s further recommended that th s report to be used n ts ent rety The Laborato y D rector for SGS Accutest New Eng and or ass gnee as ver f ed by the s gnature on the cover page has author zed the re ease of th s report(MC29882)

# Summary of Hits



**Job Number:** MC29882
**Account:** Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Collected:** 04/17/14



| Lab Sample ID / Analyte | Client Sample ID | Result/ Qual | RL | MDL | Units | Method |
|---|---|---|---|---|---|---|
| **MC29882-1** | **P93C-ROX-041714** | | | | | |
| Methyl Tert Butyl Ether | | 4.3 | 1.0 | 0.51 | ug/l | SW846 8260C |
| Di-n-butyl phthalate | | 0.48 JB | 5.2 | 0.18 | ug/l | SW846 8270D |
| **MC29882-2** | **P93A-ROX-041714** | | | | | |
| Benzene | | 132000 | 250 | 160 | ug/l | SW846 8260C |
| Phenol | | 73.5 | 5.6 | 0.34 | ug/l | SW846 8270D |
| Di-n-butyl phthalate | | 1.2 J | 5.6 | 0.19 | ug/l | SW846 8270D |
| Acenaphthene | | 0.13 | 0.11 | 0.077 | ug/l | SW846 8270D BY SIM |
| Fluorene | | 0.27 | 0.11 | 0.11 | ug/l | SW846 8270D BY SIM |
| 1-Methylnaphthalene | | 8.6 | 0.22 | 0.055 | ug/l | SW846 8270D BY SIM |
| 2-Methylnaphthalene | | 4.8 | 0.22 | 0.082 | ug/l | SW846 8270D BY SIM |
| Phenanthrene | | 0.18 B | 0.056 | 0.014 | ug/l | SW846 8270D BY SIM |
| **MC29882-3** | **P93B-ROX-041714** | | | | | |
| Benzene | | 134000 | 250 | 160 | ug/l | SW846 8260C |
| Phenol | | 71.9 | 5.1 | 0.31 | ug/l | SW846 8270D |
| Di-n-butyl phthalate | | 2.4 JB | 5.1 | 0.18 | ug/l | SW846 8270D |
| bis(2-Ethylhexyl)phthalate | | 1.5 J | 2.0 | 0.34 | ug/l | SW846 8270D |
| **MC29882-4** | **P93B-ROX-041714-DUP** | | | | | |
| Benzene | | 126000 | 250 | 160 | ug/l | SW846 8260C |
| Phenol | | 86.1 | 5.3 | 0.32 | ug/l | SW846 8270D |
| Di-n-butyl phthalate | | 0.98 JB | 5.3 | 0.18 | ug/l | SW846 8270D |
| bis(2-Ethylhexyl)phthalate | | 0.45 J | 2.1 | 0.35 | ug/l | SW846 8270D |
| **MC29882-5** | **TB-ROX-041714-HCL** | | | | | |
| No hits reported in this sample. | | | | | | |
| **MC29882-6** | **TB-ROX-041714-ST** | | | | | |
| No hits reported in this sample. | | | | | | |

## Sample Results

Report of Analysis

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | P93C-ROX-041714 | | |
| **Lab Sample ID:** | MC29882-1 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V30496.D | 1 | 05/01/14 | AMY | n/a | n/a | MSV1139 |
| 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 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-041714 | | |
| **Lab Sample ID:** | MC29882-1 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | 4.3 | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-041714 | | |
| **Lab Sample ID:** | MC29882-1 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 98% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 88% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 92% | | 70-130% |

| 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:** | P93C-ROX-041714 | | |
| **Lab Sample ID:** | MC29882-1 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | F72504.D | 1 | 04/22/14 | WK | 04/19/14 | OP37681 | MSF3224 |
| 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 | 0.32 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 10 | 0.85 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 10 | 0.41 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 10 | 0.58 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 21 | 2.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 2.0 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 10 | 0.23 | ug/l | |
| | 3&4-Methylphenol | ND | 10 | 0.48 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 10 | 3.0 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 21 | 0.55 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 10 | 1.2 | ug/l | |
| 108-95-2 | Phenol | ND | 5.2 | 0.31 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 10 | 0.38 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 10 | 0.18 | ug/l | |
| 62-53-3 | Aniline | ND | 10 | 0.66 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.2 | 0.49 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.2 | 0.55 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 10 | 2.3 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.2 | 0.32 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 10 | 0.57 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.2 | 0.30 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.2 | 0.36 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.2 | 0.34 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.2 | 0.26 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.2 | 0.25 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 10 | 0.47 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 10 | 0.31 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.2 | 0.28 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.1 | 0.27 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.48 | 5.2 | 0.18 | ug/l | JB |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.2 | 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:** | P93C-ROX-041714 | | |
| **Lab Sample ID:** | MC29882-1 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.21 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.2 | 0.35 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.1 | 0.34 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.2 | 0.30 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 10 | 1.3 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.2 | 0.31 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.2 | 0.46 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 0.41 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 1.4 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 2.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.2 | 0.40 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.2 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.2 | 0.42 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.2 | 0.20 | ug/l | |
| 110-86-1 | Pyridine | ND | 10 | 0.53 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 24% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 16% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 76% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 39% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 41% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 83% | | 30-130% |

| 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-041714 | | |
| **Lab Sample ID:** | MC29882-1 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88730.D | 1 | 04/23/14 | MR | 04/19/14 | OP37682 | MSI3305 |
| 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 | 0.071 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.10 | 0.051 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.10 | 0.095 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.052 | 0.020 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.10 | 0.030 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.052 | 0.033 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.10 | 0.028 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.10 | 0.040 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.10 | 0.025 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.10 | 0.033 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.10 | 0.042 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.10 | 0.10 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.10 | 0.032 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.21 | 0.051 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.21 | 0.076 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 0.052 | 0.013 | ug/l | |
| 129-00-0 | Pyrene | ND | 0.10 | 0.040 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 39% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 35% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 87% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
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E = Indicates value exceeds calibration range

J = Indicates 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-041714 | | |
| **Lab Sample ID:** | MC29882-1 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | BB55424.D | 1 | 04/22/14 | SZ | 04/18/14 | OP37671 | GBB3222 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.7 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0052 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 82% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 86% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041714 | | |
| **Lab Sample ID:** | MC29882-2 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V30497.D | 500 | 05/01/14 | AMY | n/a | n/a | MSV1139 |
| 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 | 5000 | 1300 | ug/l | |
| 107-02-8 | Acrolein | ND | 13000 | 3000 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 2500 | 1100 | ug/l | |
| 71-43-2 | Benzene | 132000 | 250 | 160 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 2500 | 170 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 2500 | 280 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 500 | 170 | ug/l | |
| 75-25-2 | Bromoform | ND | 500 | 310 | ug/l | |
| 74-83-9 | Bromomethane | ND | 1000 | 880 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 2500 | 1200 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 2500 | 540 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 2500 | 210 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 2500 | 190 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2500 | 230 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 500 | 270 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 500 | 210 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1000 | 270 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 2500 | 1700 | ug/l | |
| 67-66-3 | Chloroform | ND | 500 | 210 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1000 | 540 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 2500 | 190 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 2500 | 220 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 500 | 190 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 500 | 160 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 500 | 280 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 500 | 180 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1000 | 360 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 500 | 180 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 500 | 250 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 500 | 300 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 500 | 420 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 500 | 250 | ug/l | |

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N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | P93A-ROX-041714 | | |
| **Lab Sample ID:** | MC29882-2 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | ND | 1000 | 250 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 2500 | 450 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 2500 | 350 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 2500 | 240 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 250 | 210 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 250 | 250 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 13000 | 5400 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 2500 | 250 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 500 | 190 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2500 | 830 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 2500 | 800 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 2500 | 170 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 2500 | 190 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 500 | 260 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 2500 | 490 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2500 | 260 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 1000 | 140 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2500 | 340 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 2500 | 250 | ug/l | |
| 100-42-5 | Styrene | ND | 2500 | 430 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 500 | 220 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 250 | 200 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 500 | 300 | ug/l | |
| 108-88-3 | Toluene | ND | 500 | 170 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 2500 | 340 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 2500 | 250 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 500 | 230 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 500 | 230 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 500 | 240 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 500 | 270 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2500 | 410 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2500 | 160 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2500 | 190 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 2500 | 360 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 500 | 290 | ug/l | |
| | m,p-Xylene | ND | 500 | 470 | ug/l | |
| 95-47-6 | o-Xylene | ND | 500 | 180 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 500 | 180 | 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-041714 | | |
| **Lab Sample ID:** | MC29882-2 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 99% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 86% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 88% | | 70-130% |

| 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:** | P93A-ROX-041714 | | |
| **Lab Sample ID:** | MC29882-2 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38298.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1412 |
| 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 | 0.34 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 11 | 0.92 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 11 | 0.44 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 11 | 0.62 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 22 | 2.8 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 11 | 2.1 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 11 | 0.25 | ug/l | |
| | 3&4-Methylphenol | ND | 11 | 0.52 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 11 | 3.2 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 22 | 0.59 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 11 | 1.2 | ug/l | |
| 108-95-2 | Phenol | 73.5 | 5.6 | 0.34 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 11 | 0.41 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 11 | 0.19 | ug/l | |
| 62-53-3 | Aniline | ND | 11 | 0.71 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.6 | 0.52 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.6 | 0.59 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 11 | 2.5 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.6 | 0.35 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 11 | 0.62 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.6 | 0.32 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.6 | 0.39 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.6 | 0.37 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.6 | 0.28 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.6 | 0.27 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 11 | 0.51 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 11 | 0.33 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.6 | 0.30 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.2 | 0.29 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 1.2 | 5.6 | 0.19 | ug/l | J |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.6 | 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:** | P93A-ROX-041714 | | |
| **Lab Sample ID:** | MC29882-2 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.22 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.6 | 0.38 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.2 | 0.37 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.6 | 0.32 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 11 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.6 | 0.34 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.6 | 0.50 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 11 | 0.44 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 11 | 1.5 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 11 | 2.4 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.6 | 0.43 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.6 | 1.1 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.6 | 0.45 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.6 | 0.21 | ug/l | |
| 110-86-1 | Pyridine | ND | 11 | 0.57 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 48% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 30% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 100% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 70% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 73% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 100% | | 30-130% |

| 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-041714 | | |
| **Lab Sample ID:** | MC29882-2 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88690.D | 1 | 04/21/14 | MR | 04/18/14 | OP37658 | MSI3303 |
| 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 | 0.13 | 0.11 | 0.077 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.11 | 0.055 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.11 | 0.10 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.056 | 0.022 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.11 | 0.032 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.056 | 0.035 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.11 | 0.030 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.11 | 0.043 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.11 | 0.026 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.11 | 0.035 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.11 | 0.045 | ug/l | |
| 86-73-7 | Fluorene | 0.27 | 0.11 | 0.11 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.11 | 0.034 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | 8.6 | 0.22 | 0.055 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 4.8 | 0.22 | 0.082 | ug/l | |
| 85-01-8 | Phenanthrene | 0.18 | 0.056 | 0.014 | ug/l | B |
| 129-00-0 | Pyrene | ND | 0.11 | 0.043 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 70% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 69% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 97% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041714 | | |
| **Lab Sample ID:** | MC29882-2 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | BB55425.D | 1 | 04/22/14 | SZ | 04/18/14 | OP37671 | GBB3222 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.9 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0051 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 79% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 88% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041714 | | |
| **Lab Sample ID:** | MC29882-3 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V30498.D | 500 | 05/01/14 | AMY | n/a | n/a | MSV1139 |
| 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 | 5000 | 1300 | ug/l | |
| 107-02-8 | Acrolein | ND | 13000 | 3000 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 2500 | 1100 | ug/l | |
| 71-43-2 | Benzene | 134000 | 250 | 160 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 2500 | 170 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 2500 | 280 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 500 | 170 | ug/l | |
| 75-25-2 | Bromoform | ND | 500 | 310 | ug/l | |
| 74-83-9 | Bromomethane | ND | 1000 | 880 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 2500 | 1200 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 2500 | 540 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 2500 | 210 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 2500 | 190 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2500 | 230 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 500 | 270 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 500 | 210 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1000 | 270 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 2500 | 1700 | ug/l | |
| 67-66-3 | Chloroform | ND | 500 | 210 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1000 | 540 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 2500 | 190 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 2500 | 220 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 500 | 190 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 500 | 160 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 500 | 280 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 500 | 180 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1000 | 360 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 500 | 180 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 500 | 250 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 500 | 300 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 500 | 420 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 500 | 250 | 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-041714 | | |
| **Lab Sample ID:** | MC29882-3 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | ND | 1000 | 250 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 2500 | 450 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 2500 | 350 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 2500 | 240 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 250 | 210 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 250 | 250 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 13000 | 5400 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 2500 | 250 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 500 | 190 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2500 | 830 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 2500 | 800 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 2500 | 170 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 2500 | 190 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 500 | 260 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 2500 | 490 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2500 | 260 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 1000 | 140 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2500 | 340 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 2500 | 250 | ug/l | |
| 100-42-5 | Styrene | ND | 2500 | 430 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 500 | 220 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 250 | 200 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 500 | 300 | ug/l | |
| 108-88-3 | Toluene | ND | 500 | 170 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 2500 | 340 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 2500 | 250 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 500 | 230 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 500 | 230 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 500 | 240 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 500 | 270 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2500 | 410 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2500 | 160 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2500 | 190 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 2500 | 360 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 500 | 290 | ug/l | |
| | m,p-Xylene | ND | 500 | 470 | ug/l | |
| 95-47-6 | o-Xylene | ND | 500 | 180 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 500 | 180 | 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-041714 | | |
| **Lab Sample ID:** | MC29882-3 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 85% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 88% | | 70-130% |

| 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:** | P93B-ROX-041714 | | |
| **Lab Sample ID:** | MC29882-3 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38299.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1412 |
| 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 | 0.32 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 10 | 0.84 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 10 | 0.40 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 10 | 0.57 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 20 | 2.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 2.0 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 10 | 0.23 | ug/l | |
| | 3&4-Methylphenol | ND | 10 | 0.48 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 10 | 2.9 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 20 | 0.55 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 10 | 1.1 | ug/l | |
| 108-95-2 | Phenol | 71.9 | 5.1 | 0.31 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 10 | 0.38 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 10 | 0.18 | ug/l | |
| 62-53-3 | Aniline | ND | 10 | 0.65 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.1 | 0.48 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.1 | 0.54 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 10 | 2.3 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.1 | 0.32 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 10 | 0.57 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.1 | 0.29 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.1 | 0.36 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.1 | 0.34 | 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 | 0.24 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 10 | 0.47 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 10 | 0.31 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.1 | 0.27 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.0 | 0.26 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 2.4 | 5.1 | 0.18 | ug/l | JB |
| 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:** | P93B-ROX-041714 | | |
| **Lab Sample ID:** | MC29882-3 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.20 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.1 | 0.35 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 1.5 | 2.0 | 0.34 | ug/l | J |
| 118-74-1 | Hexachlorobenzene | ND | 5.1 | 0.30 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 10 | 1.3 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.1 | 0.31 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.1 | 0.46 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 0.40 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 1.4 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 2.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.1 | 0.40 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.1 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.1 | 0.41 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.1 | 0.20 | ug/l | |
| 110-86-1 | Pyridine | ND | 10 | 0.53 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 46% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 29% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 99% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 72% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 79% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 97% | | 30-130% |

| 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-041714 | | |
| **Lab Sample ID:** | MC29882-3 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88691.D | 1 | 04/21/14 | MR | 04/18/14 | OP37658 | MSI3303 |
| 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 | 0.070 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.10 | 0.051 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.10 | 0.094 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.051 | 0.020 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.10 | 0.029 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.051 | 0.032 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.10 | 0.027 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.10 | 0.039 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.10 | 0.024 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.10 | 0.033 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.10 | 0.041 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.10 | 0.10 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.10 | 0.031 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.20 | 0.051 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.20 | 0.076 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 0.051 | 0.013 | ug/l | |
| 129-00-0 | Pyrene | ND | 0.10 | 0.039 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 71% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 72% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 98% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041714 | | |
| **Lab Sample ID:** | MC29882-3 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | BB55426.D | 1 | 04/22/14 | SZ | 04/18/14 | OP37671 | GBB3222 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 35.6 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.015 | 0.0053 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.015 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 79% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 89% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041714-DUP | | |
| **Lab Sample ID:** | MC29882-4 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V30499.D | 500 | 05/01/14 | AMY | n/a | n/a | MSV1139 |
| 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 | 5000 | 1300 | ug/l | |
| 107-02-8 | Acrolein | ND | 13000 | 3000 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 2500 | 1100 | ug/l | |
| 71-43-2 | Benzene | 126000 | 250 | 160 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 2500 | 170 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 2500 | 280 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 500 | 170 | ug/l | |
| 75-25-2 | Bromoform | ND | 500 | 310 | ug/l | |
| 74-83-9 | Bromomethane | ND | 1000 | 880 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 2500 | 1200 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 2500 | 540 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 2500 | 210 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 2500 | 190 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2500 | 230 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 500 | 270 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 500 | 210 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1000 | 270 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 2500 | 1700 | ug/l | |
| 67-66-3 | Chloroform | ND | 500 | 210 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1000 | 540 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 2500 | 190 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 2500 | 220 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 500 | 190 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 500 | 160 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 500 | 280 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 500 | 180 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1000 | 360 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 500 | 180 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 500 | 250 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 500 | 300 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 500 | 420 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 500 | 250 | 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-041714-DUP | | |
| **Lab Sample ID:** | MC29882-4 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | ND | 1000 | 250 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 2500 | 450 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 2500 | 350 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 2500 | 240 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 250 | 210 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 250 | 250 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 13000 | 5400 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 2500 | 250 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 500 | 190 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2500 | 830 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 2500 | 800 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 2500 | 170 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 2500 | 190 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 500 | 260 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 2500 | 490 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2500 | 260 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 1000 | 140 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2500 | 340 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 2500 | 250 | ug/l | |
| 100-42-5 | Styrene | ND | 2500 | 430 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 500 | 220 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 250 | 200 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 500 | 300 | ug/l | |
| 108-88-3 | Toluene | ND | 500 | 170 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 2500 | 340 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 2500 | 250 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 500 | 230 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 500 | 230 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 500 | 240 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 500 | 270 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2500 | 410 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2500 | 160 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2500 | 190 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 2500 | 360 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 500 | 290 | ug/l | |
| | m,p-Xylene | ND | 500 | 470 | ug/l | |
| 95-47-6 | o-Xylene | ND | 500 | 180 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 500 | 180 | 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-041714-DUP | | |
| **Lab Sample ID:** | MC29882-4 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 86% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 90% | | 70-130% |

| 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:** | P93B-ROX-041714-DUP | | |
| **Lab Sample ID:** | MC29882-4 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38300.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1412 |
| 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 | 0.33 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 11 | 0.87 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 11 | 0.42 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 11 | 0.59 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 21 | 2.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 11 | 2.0 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 11 | 0.24 | ug/l | |
| | 3&4-Methylphenol | ND | 11 | 0.49 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 11 | 3.0 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 21 | 0.56 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 11 | 1.2 | ug/l | |
| 108-95-2 | Phenol | 86.1 | 5.3 | 0.32 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 11 | 0.39 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 11 | 0.18 | ug/l | |
| 62-53-3 | Aniline | ND | 11 | 0.67 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.3 | 0.50 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.3 | 0.56 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 11 | 2.4 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.3 | 0.33 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 11 | 0.59 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.3 | 0.30 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.3 | 0.37 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.3 | 0.35 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.3 | 0.26 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.3 | 0.25 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 11 | 0.48 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 11 | 0.32 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.3 | 0.28 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.1 | 0.27 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.98 | 5.3 | 0.18 | ug/l | JB |
| 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-041714-DUP | | |
| **Lab Sample ID:** | MC29882-4 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.21 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.3 | 0.36 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 0.45 | 2.1 | 0.35 | ug/l | J |
| 118-74-1 | Hexachlorobenzene | ND | 5.3 | 0.30 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 11 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.3 | 0.32 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.3 | 0.47 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 11 | 0.42 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 11 | 1.4 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 11 | 2.3 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.3 | 0.41 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.3 | 1.1 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.3 | 0.42 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.3 | 0.20 | ug/l | |
| 110-86-1 | Pyridine | ND | 11 | 0.54 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 43% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 28% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 98% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 70% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 76% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 96% | | 30-130% |

| 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-041714-DUP | | |
| **Lab Sample ID:** | MC29882-4 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88692.D | 1 | 04/21/14 | MR | 04/18/14 | OP37658 | MSI3303 |
| 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 | 0.073 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.11 | 0.052 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.11 | 0.097 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.053 | 0.021 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.11 | 0.030 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.053 | 0.033 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.11 | 0.028 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.11 | 0.041 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.11 | 0.025 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.11 | 0.034 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.11 | 0.043 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.11 | 0.10 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.11 | 0.032 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.21 | 0.053 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.21 | 0.078 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 0.053 | 0.013 | ug/l | |
| 129-00-0 | Pyrene | ND | 0.11 | 0.040 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 69% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 70% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 96% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041714-DUP | | |
| **Lab Sample ID:** | MC29882-4 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | BB55428.D | 1 | 04/22/14 | SZ | 04/18/14 | OP37671 | GBB3222 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.4 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.014 | 0.0052 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.014 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 90% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 101% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041714-HCL | | |
| **Lab Sample ID:** | MC29882-5 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V30454.D | 1 | 04/30/14 | AMY | n/a | n/a | MSV1137 |
| 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 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [a] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane [a] | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-041714-HCL | | |
| **Lab Sample ID:** | MC29882-5 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-041714-HCL | | |
| **Lab Sample ID:** | MC29882-5 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 108% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 94% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 90% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-041714-ST | | |
| **Lab Sample ID:** | MC29882-6 | **Date Sampled:** | 04/17/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/18/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | BB55429.D | 1 | 04/22/14 | SZ | 04/18/14 | OP37671 | GBB3222 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.0 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.015 | 0.0053 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.015 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 100% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 108% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

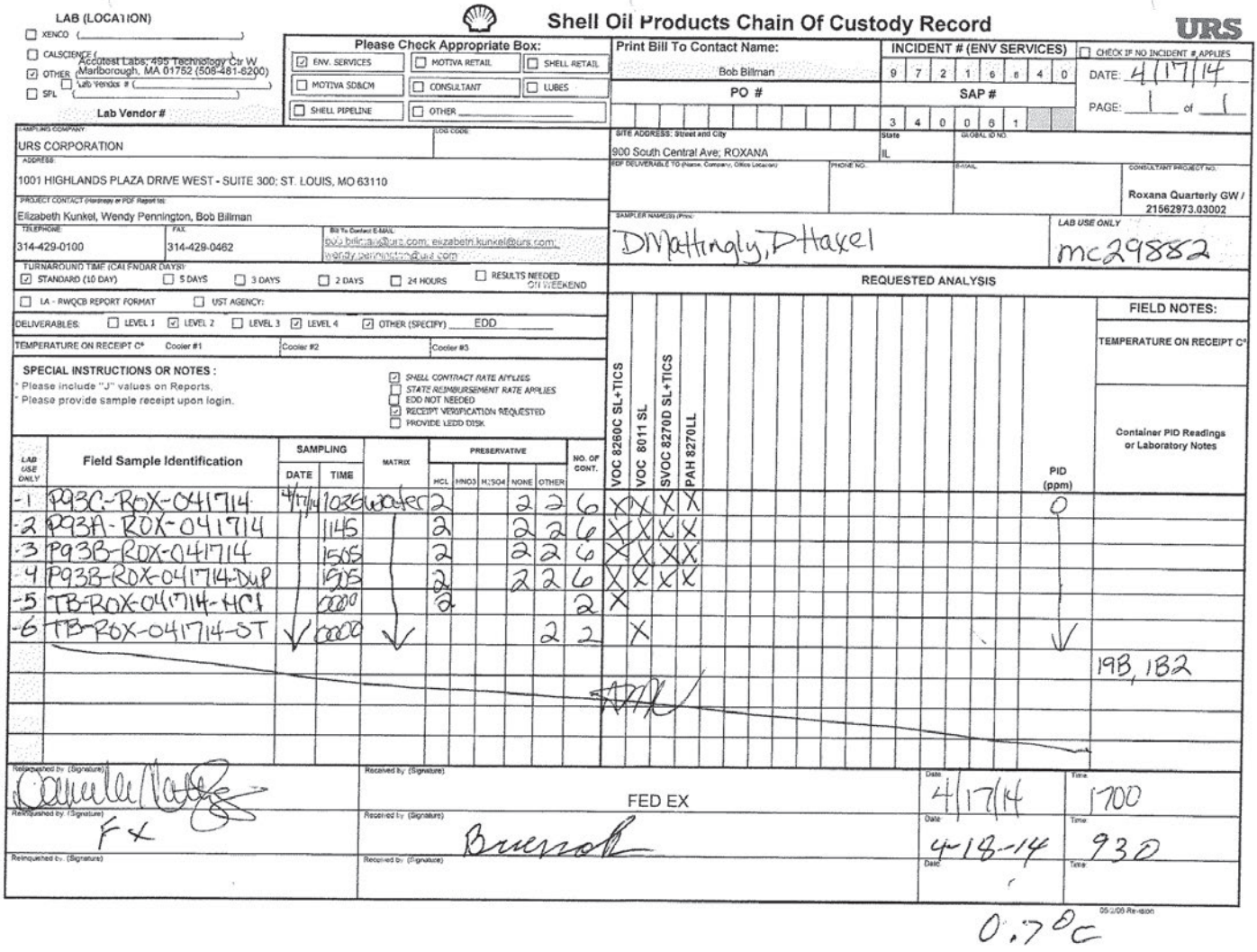
## Misc. Forms



# Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



LAB (LOCATION)
☐ XENCO (_____)
☐ CALSCIENCE (_____)
☑ OTHER Accutest Labs; 495 Technology Ctr W Marlborough, MA 01752 (508-481-6200)
☐ Lab Vendor # (_____)
☐ SPL (_____)
Lab Vendor #

Shell Oil Products Chain Of Custody Record

URS

Please Check Appropriate Box:
☑ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SD&CM ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name: Bob Billman
PO #
INCIDENT # (ENV SERVICES): 9 7 2 1 6 8 4 0
SAP #: 3 4 0 0 6 1
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 4/17/14
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 / 21562973.03002
PROJECT CONTACT (Hardcopy or PDF Report to): Elizabeth Kunkel, Wendy Pennington, Bob Billman
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: bv2.billing@urs.com; elizabeth.kunkel@urs.com; wendy.pennington@urs.com
SAMPLER NAME(S) (Print): DMattingly, PHaxel
LAB USE ONLY: mc29882

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 REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD 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 | PID (ppm) | Container PID Readings or Laboratory Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -1 | P93C-ROX-041714 | 4/17/14 | 1025 | Water | 2 | | | 2 | 2 | 6 | X | X | X | X | 0 | |
| -2 | P93A-ROX-041714 | | 1145 | | 2 | | | 2 | 2 | 6 | X | X | X | X | | |
| -3 | P93B-ROX-041714 | | 1505 | | 2 | | | 2 | 2 | 6 | X | X | X | X | | |
| -4 | P93B-ROX-041714-DUP | | 1505 | | 2 | | | 2 | 2 | 6 | X | X | X | X | | |
| -5 | TB-ROX-041714-HCl | | 0000 | | 2 | | | | | 2 | X | | | | | |
| -6 | TB-ROX-041714-ST | ↓ | 0000 | ↓ | | | | | 2 | 2 | | X | | | ↓ | |
| | | | | | | | | | | | | | | | | 19B, 1B2 |

FIELD NOTES:
TEMPERATURE ON RECEIPT C°: 0.7 °C

| Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|---|---|---|---|
| [signature] | FED EX | 4/17/14 | 1700 |
| F x | [signature] | 4-18-14 | 930 |
| | | | |

05/2/06 Revision

MC29882: Chain of Custody
Page 1 of 2

# Accutest Laboratories Sample Receipt Summary

**Accutest Job Number:** MC29882 **Client:** URS **Immediate Client Services Action Required:** No

**Date / Time Received:** 4/18/2014 **Delivery Method:** **Client Service Action Required at Login:** No

**Project:** 900 SOUTH CENTRAL **No. Coolers:** 1 **Airbill #'s:**

| 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. Cooler temp verification: | Infared gun | | |
| 3. Cooler media: | Ice (bag) | | |

| 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
www/accutest.com

5.1

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MC29882: Chain of Custody
Page 2 of 2

# Internal Sample Tracking Chronicle

Shell Oil

Job No: MC29882

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample Number | Method | Analyzed | By | Prepped | By | Test Codes |
|---|---|---|---|---|---|---|
| MC29882-1 Collected: 17-APR-14 10:35 By: DMDH Received: 18-APR-14 By: P93C-ROX-041714 | | | | | | |
| MC29882-1 | SW846 8011 | 22-APR-14 01:18 | SZ | 18-APR-14 | MT | V8011SL |
| MC29882-1 | SW846 8270D | 22-APR-14 19:58 | WK | 19-APR-14 | AJ | AB8270SL+ |
| MC29882-1 | SW846 8270D BY SIM | 23-APR-14 12:19 | MR | 19-APR-14 | SC | B8270SIMSL |
| MC29882-1 | SW846 8260C | 01-MAY-14 10:43 | AMY | | | V8260SL+ |
| MC29882-2 Collected: 17-APR-14 11:45 By: DMDH Received: 18-APR-14 By: P93A-ROX-041714 | | | | | | |
| MC29882-2 | SW846 8270D | 21-APR-14 18:04 | WK | 18-APR-14 | PA | AB8270SL+ |
| MC29882-2 | SW846 8270D BY SIM | 21-APR-14 20:33 | MR | 18-APR-14 | PA | B8270SIMSL |
| MC29882-2 | SW846 8011 | 22-APR-14 01:46 | SZ | 18-APR-14 | MT | V8011SL |
| MC29882-2 | SW846 8260C | 01-MAY-14 11:09 | AMY | | | V8260SL+ |
| MC29882-3 Collected: 17-APR-14 15:05 By: DMDH Received: 18-APR-14 By: P93B-ROX-041714 | | | | | | |
| MC29882-3 | SW846 8270D | 21-APR-14 18:29 | WK | 18-APR-14 | PA | AB8270SL+ |
| MC29882-3 | SW846 8270D BY SIM | 21-APR-14 20:57 | MR | 18-APR-14 | PA | B8270SIMSL |
| MC29882-3 | SW846 8011 | 22-APR-14 02:14 | SZ | 18-APR-14 | MT | V8011SL |
| MC29882-3 | SW846 8260C | 01-MAY-14 11:35 | AMY | | | V8260SL+ |
| MC29882-4 Collected: 17-APR-14 15:05 By: DMDH Received: 18-APR-14 By: P93B-ROX-041714-DUP | | | | | | |
| MC29882-4 | SW846 8270D | 21-APR-14 18:53 | WK | 18-APR-14 | PA | AB8270SL+ |
| MC29882-4 | SW846 8270D BY SIM | 21-APR-14 21:21 | MR | 18-APR-14 | PA | B8270SIMSL |
| MC29882-4 | SW846 8011 | 22-APR-14 03:11 | SZ | 18-APR-14 | MT | V8011SL |
| MC29882-4 | SW846 8260C | 01-MAY-14 12:02 | AMY | | | V8260SL+ |
| MC29882-5 Collected: 17-APR-14 00:00 By: DMDH Received: 18-APR-14 By: TB-ROX-041714-HCL | | | | | | |
| MC29882-5 | SW846 8260C | 30-APR-14 11:00 | AMY | | | V8260SL+ |
| MC29882-6 Collected: 17-APR-14 00:00 By: DMDH Received: 18-APR-14 By: TB-ROX-041714-ST | | | | | | |

# Internal Sample Tracking Chronicle

Shell Oil

Job No: MC29882

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL



| Sample Number | Method | Analyzed | By | Prepped | By | Test Codes |
|---|---|---|---|---|---|---|
| MC29882-6 | SW846 8011 | 22-APR-14 03:39 | SZ | 18-APR-14 | MT | V8011SL |

# SGS Accutest Internal Chain of Custody



**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Received:** 04/18/14



| Sample.Bottle Number | Transfer FROM | Transfer TO | Date/Time | Reason |
|---|---|---|---|---|
| MC29882-1.1 | Walk In Ref #22 | Michael DiBuono | 04/19/14 15:26 | Retrieve from Storage |
| MC29882-1.1 | Michael DiBuono | | 05/15/14 07:58 | Depleted |
| MC29882-1.3 | VOC Ref #1 | Amy Min Yang | 04/30/14 09:07 | Retrieve from Storage |
| MC29882-1.3 | Amy Min Yang | GCMSV | 04/30/14 09:07 | Load on Instrument |
| MC29882-1.3 | GCMSV | Amy Min Yang | 05/02/14 15:43 | Unload from Instrument |
| MC29882-1.3 | Amy Min Yang | VOC Ref #1 | 05/02/14 15:44 | Return to Storage |
| MC29882-1.3 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29882-1.4 | VOC Ref #1 | Amy Min Yang | 05/01/14 09:20 | Retrieve from Storage |
| MC29882-1.4 | Amy Min Yang | GCMSV | 05/01/14 09:20 | Load on Instrument |
| MC29882-1.4 | GCMSV | Amy Min Yang | 05/02/14 15:43 | Unload from Instrument |
| MC29882-1.4 | Amy Min Yang | VOC Ref #1 | 05/02/14 15:44 | Return to Storage |
| MC29882-1.4 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29882-1.5 | VOC Ref #1 | Marc Tahtamoni | 04/18/14 18:53 | Retrieve from Storage |
| MC29882-1.5 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29882-2.2 | Walk In Ref #22 | Thomas Abruzzise | 04/18/14 19:10 | Retrieve from Storage |
| MC29882-2.2 | Thomas Abruzzise | | 04/30/14 21:28 | Depleted |
| MC29882-2.3 | VOC Ref #1 | Amy Min Yang | 05/01/14 09:20 | Retrieve from Storage |
| MC29882-2.3 | Amy Min Yang | GCMSV | 05/01/14 09:20 | Load on Instrument |
| MC29882-2.3 | GCMSV | Amy Min Yang | 05/02/14 15:43 | Unload from Instrument |
| MC29882-2.3 | Amy Min Yang | VOC Ref #1 | 05/02/14 15:44 | Return to Storage |
| MC29882-2.3 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29882-2.4 | VOC Ref #1 | Amy Min Yang | 04/30/14 09:07 | Retrieve from Storage |
| MC29882-2.4 | Amy Min Yang | GCMSV | 04/30/14 09:07 | Load on Instrument |
| MC29882-2.4 | GCMSV | Amy Min Yang | 05/02/14 15:43 | Unload from Instrument |
| MC29882-2.4 | Amy Min Yang | VOC Ref #1 | 05/02/14 15:44 | Return to Storage |
| MC29882-2.4 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29882-2.6 | VOC Ref #1 | Marc Tahtamoni | 04/18/14 18:53 | Retrieve from Storage |
| MC29882-2.6 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29882-3.1 | Walk In Ref #22 | Thomas Abruzzise | 04/18/14 19:10 | Retrieve from Storage |
| MC29882-3.1 | Thomas Abruzzise | | 04/30/14 21:28 | Depleted |
| MC29882-3.3 | VOC Ref #1 | Amy Min Yang | 05/01/14 09:20 | Retrieve from Storage |
| MC29882-3.3 | Amy Min Yang | GCMSV | 05/01/14 09:20 | Load on Instrument |
| MC29882-3.3 | GCMSV | Amy Min Yang | 05/02/14 15:43 | Unload from Instrument |
| MC29882-3.3 | Amy Min Yang | VOC Ref #1 | 05/02/14 15:44 | Return to Storage |
| MC29882-3.3 | Scott Parsick | | 06/25/14 13:20 | Disposed |

# SGS Accutest Internal Chain of Custody

**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Received:** 04/18/14



| Sample.Bottle Number | Transfer FROM | Transfer TO | Date/Time | Reason |
|---|---|---|---|---|
| MC29882-3.4 | VOC Ref #1 | Amy Min Yang | 04/30/14 09:07 | Retrieve from Storage |
| MC29882-3.4 | Amy Min Yang | GCMSV | 04/30/14 09:07 | Load on Instrument |
| MC29882-3.4 | GCMSV | Amy Min Yang | 05/02/14 15:43 | Unload from Instrument |
| MC29882-3.4 | Amy Min Yang | VOC Ref #1 | 05/02/14 15:44 | Return to Storage |
| MC29882-3.4 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29882-3.6 | VOC Ref #1 | Marc Tahtamoni | 04/18/14 18:53 | Retrieve from Storage |
| MC29882-3.6 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29882-4.1 | Walk In Ref #22 | Thomas Abruzzise | 04/18/14 19:10 | Retrieve from Storage |
| MC29882-4.1 | Thomas Abruzzise | | 04/30/14 21:28 | Depleted |
| MC29882-4.3 | VOC Ref #1 | Amy Min Yang | 04/30/14 09:07 | Retrieve from Storage |
| MC29882-4.3 | Amy Min Yang | GCMSV | 04/30/14 09:07 | Load on Instrument |
| MC29882-4.3 | GCMSV | Amy Min Yang | 05/02/14 15:43 | Unload from Instrument |
| MC29882-4.3 | Amy Min Yang | VOC Ref #1 | 05/02/14 15:44 | Return to Storage |
| MC29882-4.3 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29882-4.4 | VOC Ref #1 | Amy Min Yang | 05/01/14 09:20 | Retrieve from Storage |
| MC29882-4.4 | Amy Min Yang | GCMSV | 05/01/14 09:20 | Load on Instrument |
| MC29882-4.4 | GCMSV | Amy Min Yang | 05/02/14 15:43 | Unload from Instrument |
| MC29882-4.4 | Amy Min Yang | VOC Ref #1 | 05/02/14 15:44 | Return to Storage |
| MC29882-4.4 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29882-4.5 | VOC Ref #1 | Marc Tahtamoni | 04/18/14 18:53 | Retrieve from Storage |
| MC29882-4.5 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29882-5.1 | VOC Ref #1 | Amy Min Yang | 04/30/14 09:07 | Retrieve from Storage |
| MC29882-5.1 | Amy Min Yang | GCMSV | 04/30/14 09:07 | Load on Instrument |
| MC29882-5.1 | GCMSV | Amy Min Yang | 05/02/14 15:43 | Unload from Instrument |
| MC29882-5.1 | Amy Min Yang | VOC Ref #1 | 05/02/14 15:44 | Return to Storage |
| MC29882-5.1 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29882-6.2 | VOC Ref #1 | Marc Tahtamoni | 04/18/14 18:53 | Retrieve from Storage |
| MC29882-6.2 | Scott Parsick | | 06/25/14 13:20 | Disposed |

## 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:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1137-MB | V30451.D | 1 | 04/30/14 | AMY | n/a | n/a | MSV1137 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29882-5

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 2.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |

# Method Blank Summary

**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1137-MB | V30451.D | 1 | 04/30/14 | AMY | n/a | n/a | MSV1137 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29882-5

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | ug/l | |

# Method Blank Summary

**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1137-MB | V30451.D | 1 | 04/30/14 | AMY | n/a | n/a | MSV1137 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29882-5

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | 70-130% |
| 2037-26-5 | Toluene-D8 | 93% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 89% | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

# Method Blank Summary



**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1139-MB | V30494.D | 1 | 05/01/14 | AMY | n/a | n/a | MSV1139 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29882-1, MC29882-2, MC29882-3, MC29882-4

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 2.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |

# Method Blank Summary

**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1139-MB | V30494.D | 1 | 05/01/14 | AMY | n/a | n/a | MSV1139 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29882-1, MC29882-2, MC29882-3, MC29882-4

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | ug/l | |

# Method Blank Summary

**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1139-MB | V30494.D | 1 | 05/01/14 | AMY | n/a | n/a | MSV1139 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29882-1, MC29882-2, MC29882-3, MC29882-4

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 92% | 70-130% |
| 2037-26-5 | Toluene-D8 | 87% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 91% | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

# Blank Spike Summary



**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1137-BS | V30448.D | 1 | 04/30/14 | AMY | n/a | n/a | MSV1137 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29882-5

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 50 | 61.1 | 122 | 70-130 |
| 107-02-8 | Acrolein | 250 | 256 | 102 | 70-130 |
| 107-13-1 | Acrylonitrile | 50 | 49.2 | 98 | 70-130 |
| 71-43-2 | Benzene | 50 | 50.1 | 100 | 70-130 |
| 108-86-1 | Bromobenzene | 50 | 51.2 | 102 | 70-130 |
| 74-97-5 | Bromochloromethane | 50 | 48.2 | 96 | 70-130 |
| 75-27-4 | Bromodichloromethane | 50 | 49.3 | 99 | 70-130 |
| 75-25-2 | Bromoform | 50 | 40.9 | 82 | 70-130 |
| 74-83-9 | Bromomethane | 50 | 46.0 | 92 | 70-130 |
| 78-93-3 | 2-Butanone (MEK) | 50 | 57.4 | 115 | 70-130 |
| 104-51-8 | n-Butylbenzene | 50 | 53.1 | 106 | 70-130 |
| 135-98-8 | sec-Butylbenzene | 50 | 54.0 | 108 | 70-130 |
| 98-06-6 | tert-Butylbenzene | 50 | 50.4 | 101 | 70-130 |
| 75-15-0 | Carbon disulfide | 50 | 46.3 | 93 | 70-130 |
| 56-23-5 | Carbon tetrachloride | 50 | 51.0 | 102 | 70-130 |
| 108-90-7 | Chlorobenzene | 50 | 50.9 | 102 | 70-130 |
| 75-00-3 | Chloroethane | 50 | 54.6 | 109 | 70-130 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 50 | 36.2 | 72 | 70-130 |
| 67-66-3 | Chloroform | 50 | 47.9 | 96 | 70-130 |
| 74-87-3 | Chloromethane | 50 | 48.1 | 96 | 70-130 |
| 95-49-8 | o-Chlorotoluene | 50 | 51.5 | 103 | 70-130 |
| 106-43-4 | p-Chlorotoluene | 50 | 53.2 | 106 | 70-130 |
| 124-48-1 | Dibromochloromethane | 50 | 45.1 | 90 | 70-130 |
| 95-50-1 | 1,2-Dichlorobenzene | 50 | 48.8 | 98 | 70-130 |
| 541-73-1 | 1,3-Dichlorobenzene | 50 | 50.1 | 100 | 70-130 |
| 106-46-7 | 1,4-Dichlorobenzene | 50 | 50.4 | 101 | 70-130 |
| 75-71-8 | Dichlorodifluoromethane | 50 | 35.8 | 72 | 70-130 |
| 75-34-3 | 1,1-Dichloroethane | 50 | 50.2 | 100 | 70-130 |
| 107-06-2 | 1,2-Dichloroethane | 50 | 48.6 | 97 | 70-130 |
| 75-35-4 | 1,1-Dichloroethene | 50 | 51.8 | 104 | 70-130 |
| 156-59-2 | cis-1,2-Dichloroethene | 50 | 48.4 | 97 | 70-130 |
| 156-60-5 | trans-1,2-Dichloroethene | 50 | 48.4 | 97 | 70-130 |
| 78-87-5 | 1,2-Dichloropropane | 50 | 55.7 | 111 | 70-130 |
| 142-28-9 | 1,3-Dichloropropane | 50 | 52.8 | 106 | 70-130 |
| 594-20-7 | 2,2-Dichloropropane | 50 | 49.8 | 100 | 70-130 |
| 563-58-6 | 1,1-Dichloropropene | 50 | 49.3 | 99 | 70-130 |

* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1137-BS | V30448.D | 1 | 04/30/14 | AMY | n/a | n/a | MSV1137 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29882-5

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | 50 | 47.3 | 95 | 70-130 |
| 10061-02-6 | trans-1,3-Dichloropropene | 50 | 58.9 | 118 | 70-130 |
| 123-91-1 | 1,4-Dioxane | 250 | 222 | 89 | 70-130 |
| 97-63-2 | Ethyl methacrylate | 50 | 47.2 | 94 | 77-137 |
| 100-41-4 | Ethylbenzene | 50 | 54.2 | 108 | 70-130 |
| 87-68-3 | Hexachlorobutadiene | 50 | 41.5 | 83 | 70-130 |
| 591-78-6 | 2-Hexanone | 50 | 58.3 | 117 | 70-130 |
| 98-82-8 | Isopropylbenzene | 50 | 52.4 | 105 | 70-130 |
| 99-87-6 | p-Isopropyltoluene | 50 | 53.3 | 107 | 70-130 |
| 1634-04-4 | Methyl Tert Butyl Ether | 50 | 45.6 | 91 | 70-130 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 50 | 48.4 | 97 | 70-130 |
| 74-95-3 | Methylene bromide | 50 | 51.6 | 103 | 70-130 |
| 75-09-2 | Methylene chloride | 50 | 49.8 | 100 | 70-130 |
| 91-20-3 | Naphthalene | 50 | 48.4 | 97 | 70-130 |
| 103-65-1 | n-Propylbenzene | 50 | 53.5 | 107 | 70-130 |
| 100-42-5 | Styrene | 50 | 55.8 | 112 | 70-130 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 50 | 52.5 | 105 | 70-130 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 50 | 57.3 | 115 | 70-130 |
| 127-18-4 | Tetrachloroethene | 50 | 50.8 | 102 | 70-130 |
| 108-88-3 | Toluene | 50 | 55.4 | 111 | 70-130 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 50 | 50.9 | 102 | 70-130 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 50 | 41.4 | 83 | 70-130 |
| 71-55-6 | 1,1,1-Trichloroethane | 50 | 50.4 | 101 | 70-130 |
| 79-00-5 | 1,1,2-Trichloroethane | 50 | 57.3 | 115 | 70-130 |
| 79-01-6 | Trichloroethene | 50 | 47.8 | 96 | 70-130 |
| 75-69-4 | Trichlorofluoromethane | 50 | 51.3 | 103 | 70-130 |
| 96-18-4 | 1,2,3-Trichloropropane | 50 | 54.8 | 110 | 70-130 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 50 | 52.6 | 105 | 70-130 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 50 | 53.2 | 106 | 70-130 |
| 108-05-4 | Vinyl Acetate | 50 | 48.2 | 96 | 70-130 |
| 75-01-4 | Vinyl chloride | 50 | 50.3 | 101 | 70-130 |
| | m,p-Xylene | 100 | 110 | 110 | 70-130 |
| 95-47-6 | o-Xylene | 50 | 53.6 | 107 | 70-130 |
| 1330-20-7 | Xylene (total) | 150 | 163 | 109 | 70-130 |

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1137-BS | V30448.D | 1 | 04/30/14 | AMY | n/a | n/a | MSV1137 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29882-5

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 85% | 70-130% |
| 2037-26-5 | Toluene-D8 | 93% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 90% | 70-130% |

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1139-BS | V30491.D | 1 | 05/01/14 | AMY | n/a | n/a | MSV1139 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29882-1, MC29882-2, MC29882-3, MC29882-4

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 50 | 45.3 | 91 | 70-130 |
| 107-02-8 | Acrolein | 250 | 273 | 109 | 70-130 |
| 107-13-1 | Acrylonitrile | 50 | 48.1 | 96 | 70-130 |
| 71-43-2 | Benzene | 50 | 49.3 | 99 | 70-130 |
| 108-86-1 | Bromobenzene | 50 | 52.7 | 105 | 70-130 |
| 74-97-5 | Bromochloromethane | 50 | 47.3 | 95 | 70-130 |
| 75-27-4 | Bromodichloromethane | 50 | 44.5 | 89 | 70-130 |
| 75-25-2 | Bromoform | 50 | 41.1 | 82 | 70-130 |
| 74-83-9 | Bromomethane | 50 | 44.9 | 90 | 70-130 |
| 78-93-3 | 2-Butanone (MEK) | 50 | 46.1 | 92 | 70-130 |
| 104-51-8 | n-Butylbenzene | 50 | 53.5 | 107 | 70-130 |
| 135-98-8 | sec-Butylbenzene | 50 | 55.9 | 112 | 70-130 |
| 98-06-6 | tert-Butylbenzene | 50 | 50.1 | 100 | 70-130 |
| 75-15-0 | Carbon disulfide | 50 | 46.5 | 93 | 70-130 |
| 56-23-5 | Carbon tetrachloride | 50 | 46.1 | 92 | 70-130 |
| 108-90-7 | Chlorobenzene | 50 | 50.4 | 101 | 70-130 |
| 75-00-3 | Chloroethane | 50 | 53.4 | 107 | 70-130 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 50 | 42.1 | 84 | 70-130 |
| 67-66-3 | Chloroform | 50 | 43.9 | 88 | 70-130 |
| 74-87-3 | Chloromethane | 50 | 47.1 | 94 | 70-130 |
| 95-49-8 | o-Chlorotoluene | 50 | 51.1 | 102 | 70-130 |
| 106-43-4 | p-Chlorotoluene | 50 | 50.8 | 102 | 70-130 |
| 124-48-1 | Dibromochloromethane | 50 | 44.8 | 90 | 70-130 |
| 95-50-1 | 1,2-Dichlorobenzene | 50 | 49.7 | 99 | 70-130 |
| 541-73-1 | 1,3-Dichlorobenzene | 50 | 50.5 | 101 | 70-130 |
| 106-46-7 | 1,4-Dichlorobenzene | 50 | 50.4 | 101 | 70-130 |
| 75-71-8 | Dichlorodifluoromethane | 50 | 46.1 | 92 | 70-130 |
| 75-34-3 | 1,1-Dichloroethane | 50 | 47.9 | 96 | 70-130 |
| 107-06-2 | 1,2-Dichloroethane | 50 | 41.7 | 83 | 70-130 |
| 75-35-4 | 1,1-Dichloroethene | 50 | 51.6 | 103 | 70-130 |
| 156-59-2 | cis-1,2-Dichloroethene | 50 | 48.3 | 97 | 70-130 |
| 156-60-5 | trans-1,2-Dichloroethene | 50 | 47.7 | 95 | 70-130 |
| 78-87-5 | 1,2-Dichloropropane | 50 | 53.6 | 107 | 70-130 |
| 142-28-9 | 1,3-Dichloropropane | 50 | 52.9 | 106 | 70-130 |
| 594-20-7 | 2,2-Dichloropropane | 50 | 48.0 | 96 | 70-130 |
| 563-58-6 | 1,1-Dichloropropene | 50 | 46.8 | 94 | 70-130 |

* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1139-BS | V30491.D | 1 | 05/01/14 | AMY | n/a | n/a | MSV1139 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29882-1, MC29882-2, MC29882-3, MC29882-4

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | 50 | 46.5 | 93 | 70-130 |
| 10061-02-6 | trans-1,3-Dichloropropene | 50 | 57.0 | 114 | 70-130 |
| 123-91-1 | 1,4-Dioxane | 250 | 217 | 87 | 70-130 |
| 97-63-2 | Ethyl methacrylate | 50 | 48.1 | 96 | 77-137 |
| 100-41-4 | Ethylbenzene | 50 | 52.9 | 106 | 70-130 |
| 87-68-3 | Hexachlorobutadiene | 50 | 45.0 | 90 | 70-130 |
| 591-78-6 | 2-Hexanone | 50 | 48.2 | 96 | 70-130 |
| 98-82-8 | Isopropylbenzene | 50 | 54.4 | 109 | 70-130 |
| 99-87-6 | p-Isopropyltoluene | 50 | 54.4 | 109 | 70-130 |
| 1634-04-4 | Methyl Tert Butyl Ether | 50 | 47.4 | 95 | 70-130 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 50 | 49.4 | 99 | 70-130 |
| 74-95-3 | Methylene bromide | 50 | 47.6 | 95 | 70-130 |
| 75-09-2 | Methylene chloride | 50 | 48.7 | 97 | 70-130 |
| 91-20-3 | Naphthalene | 50 | 56.6 | 113 | 70-130 |
| 103-65-1 | n-Propylbenzene | 50 | 53.5 | 107 | 70-130 |
| 100-42-5 | Styrene | 50 | 55.0 | 110 | 70-130 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 50 | 51.7 | 103 | 70-130 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 50 | 60.3 | 121 | 70-130 |
| 127-18-4 | Tetrachloroethene | 50 | 51.8 | 104 | 70-130 |
| 108-88-3 | Toluene | 50 | 52.8 | 106 | 70-130 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 50 | 59.4 | 119 | 70-130 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 50 | 47.6 | 95 | 70-130 |
| 71-55-6 | 1,1,1-Trichloroethane | 50 | 46.8 | 94 | 70-130 |
| 79-00-5 | 1,1,2-Trichloroethane | 50 | 53.7 | 107 | 70-130 |
| 79-01-6 | Trichloroethene | 50 | 45.4 | 91 | 70-130 |
| 75-69-4 | Trichlorofluoromethane | 50 | 45.8 | 92 | 70-130 |
| 96-18-4 | 1,2,3-Trichloropropane | 50 | 52.3 | 105 | 70-130 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 50 | 52.7 | 105 | 70-130 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 50 | 53.7 | 107 | 70-130 |
| 108-05-4 | Vinyl Acetate | 50 | 46.0 | 92 | 70-130 |
| 75-01-4 | Vinyl chloride | 50 | 51.8 | 104 | 70-130 |
| | m,p-Xylene | 100 | 109 | 109 | 70-130 |
| 95-47-6 | o-Xylene | 50 | 54.2 | 108 | 70-130 |
| 1330-20-7 | Xylene (total) | 150 | 163 | 109 | 70-130 |

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1139-BS | V30491.D | 1 | 05/01/14 | AMY | n/a | n/a | MSV1139 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29882-1, MC29882-2, MC29882-3, MC29882-4

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 81% | 70-130% |
| 2037-26-5 | Toluene-D8 | 90% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 92% | 70-130% |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29904-2MS | V30472.D | 5 | 04/30/14 | AMY | n/a | n/a | MSV1137 |
| MC29904-2MSD | V30473.D | 5 | 04/30/14 | AMY | n/a | n/a | MSV1137 |
| MC29904-2 | V30459.D | 1 | 04/30/14 | AMY | n/a | n/a | MSV1137 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29882-5

| CAS No. | Compound | MC29904-2 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 | 189 | 76 | 250 | 187 | 75 | 1 | 70-130/30 |
| 107-02-8 | Acrolein | ND | | 1250 | 1230 | 98 | 1250 | 1160 | 93 | 6 | 70-130/30 |
| 107-13-1 | Acrylonitrile | ND | | 250 | 277 | 111 | 250 | 265 | 106 | 4 | 70-130/30 |
| 71-43-2 | Benzene | 2.5 | | 250 | 278 | 110 | 250 | 259 | 103 | 7 | 70-130/30 |
| 108-86-1 | Bromobenzene | ND | | 250 | 288 | 115 | 250 | 274 | 110 | 5 | 70-130/30 |
| 74-97-5 | Bromochloromethane | ND | | 250 | 265 | 106 | 250 | 247 | 99 | 7 | 70-130/30 |
| 75-27-4 | Bromodichloromethane | ND | | 250 | 246 | 98 | 250 | 232 | 93 | 6 | 70-130/30 |
| 75-25-2 | Bromoform | ND | | 250 | 213 | 85 | 250 | 212 | 85 | 0 | 70-130/30 |
| 74-83-9 | Bromomethane | ND | | 250 | 209 | 84 | 250 | 191 | 76 | 9 | 70-130/30 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 250 | 213 | 85 | 250 | 203 | 81 | 5 | 70-130/30 |
| 104-51-8 | n-Butylbenzene | ND | | 250 | 295 | 118 | 250 | 280 | 112 | 5 | 70-130/30 |
| 135-98-8 | sec-Butylbenzene | ND | | 250 | 309 | 124 | 250 | 289 | 116 | 7 | 70-130/30 |
| 98-06-6 | tert-Butylbenzene | ND | | 250 | 282 | 113 | 250 | 263 | 105 | 7 | 70-130/30 |
| 75-15-0 | Carbon disulfide | ND | | 250 | 262 | 105 | 250 | 242 | 97 | 8 | 70-130/30 |
| 56-23-5 | Carbon tetrachloride | ND | | 250 | 257 | 103 | 250 | 238 | 95 | 8 | 70-130/30 |
| 108-90-7 | Chlorobenzene | ND | | 250 | 275 | 110 | 250 | 263 | 105 | 4 | 70-130/30 |
| 75-00-3 | Chloroethane | ND | | 250 | 264 | 106 | 250 | 240 | 96 | 10 | 70-130/30 |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | | 250 | ND | 0* [a] | 250 | ND | 0* [a] | nc | 70-130/30 |
| 67-66-3 | Chloroform | ND | | 250 | 248 | 99 | 250 | 229 | 92 | 8 | 70-130/30 |
| 74-87-3 | Chloromethane | ND | | 250 | 221 | 88 | 250 | 201 | 80 | 9 | 70-130/30 |
| 95-49-8 | o-Chlorotoluene | ND | | 250 | 280 | 112 | 250 | 265 | 106 | 6 | 70-130/30 |
| 106-43-4 | p-Chlorotoluene | ND | | 250 | 281 | 112 | 250 | 264 | 106 | 6 | 70-130/30 |
| 124-48-1 | Dibromochloromethane | ND | | 250 | 237 | 95 | 250 | 231 | 92 | 3 | 70-130/30 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 250 | 254 | 102 | 250 | 252 | 101 | 1 | 70-130/30 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 250 | 269 | 108 | 250 | 259 | 104 | 4 | 70-130/30 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 250 | 268 | 107 | 250 | 258 | 103 | 4 | 70-130/30 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 250 | 157 | 63* [a] | 250 | 139 | 56* [a] | 12 | 70-130/30 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 250 | 271 | 108 | 250 | 249 | 100 | 8 | 70-130/30 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 250 | 232 | 93 | 250 | 217 | 87 | 7 | 70-130/30 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 250 | 294 | 118 | 250 | 270 | 108 | 9 | 70-130/30 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 250 | 276 | 110 | 250 | 254 | 102 | 8 | 70-130/30 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 250 | 272 | 109 | 250 | 250 | 100 | 8 | 70-130/30 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 250 | 298 | 119 | 250 | 284 | 114 | 5 | 70-130/30 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 250 | 283 | 113 | 250 | 275 | 110 | 3 | 70-130/30 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 250 | 235 | 94 | 250 | 216 | 86 | 8 | 70-130/30 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 250 | 268 | 107 | 250 | 249 | 100 | 7 | 70-130/30 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC29882
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29904-2MS | V30472.D | 5 | 04/30/14 | AMY | n/a | n/a | MSV1137 |
| MC29904-2MSD | V30473.D | 5 | 04/30/14 | AMY | n/a | n/a | MSV1137 |
| MC29904-2 | V30459.D | 1 | 04/30/14 | AMY | n/a | n/a | MSV1137 |

The QC reported here applies to the following samples: Method: SW846 8260C

MC29882-5

| CAS No. | Compound | MC29904-2 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 | 237 | 95 | 250 | 228 | 91 | 4 | 70-130/30 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 250 | 299 | 120 | 250 | 289 | 116 | 3 | 70-130/30 |
| 123-91-1 | 1,4-Dioxane | ND | | 1250 | 965 | 77 | 1250 | 999 | 80 | 3 | 70-130/30 |
| 97-63-2 | Ethyl methacrylate | ND | | 250 | 264 | 106 | 250 | 256 | 102 | 3 | 72-139/30 |
| 100-41-4 | Ethylbenzene | ND | | 250 | 289 | 116 | 250 | 275 | 110 | 5 | 70-130/30 |
| 87-68-3 | Hexachlorobutadiene | ND | | 250 | 245 | 98 | 250 | 245 | 98 | 0 | 70-130/30 |
| 591-78-6 | 2-Hexanone | ND | | 250 | 230 | 92 | 250 | 227 | 91 | 1 | 70-130/30 |
| 98-82-8 | Isopropylbenzene | ND | | 250 | 300 | 120 | 250 | 282 | 113 | 6 | 70-130/30 |
| 99-87-6 | p-Isopropyltoluene | ND | | 250 | 297 | 119 | 250 | 280 | 112 | 6 | 70-130/30 |
| 1634-04-4 | Methyl Tert Butyl Ether | 46.3 | | 250 | 299 | 101 | 250 | 283 | 95 | 5 | 70-130/30 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 250 | 264 | 106 | 250 | 259 | 104 | 2 | 70-130/30 |
| 74-95-3 | Methylene bromide | ND | | 250 | 263 | 105 | 250 | 250 | 100 | 5 | 70-130/30 |
| 75-09-2 | Methylene chloride | ND | | 250 | 272 | 109 | 250 | 252 | 101 | 8 | 70-130/30 |
| 91-20-3 | Naphthalene | ND | | 250 | 186 | 74 | 250 | 278 | 111 | 40* [b] | 70-130/30 |
| 103-65-1 | n-Propylbenzene | ND | | 250 | 297 | 119 | 250 | 275 | 110 | 8 | 70-130/30 |
| 100-42-5 | Styrene | ND | | 250 | 295 | 118 | 250 | 282 | 113 | 5 | 70-130/30 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 250 | 281 | 112 | 250 | 265 | 106 | 6 | 70-130/30 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 250 | 318 | 127 | 250 | 313 | 125 | 2 | 70-130/30 |
| 127-18-4 | Tetrachloroethene | ND | | 250 | 280 | 112 | 250 | 267 | 107 | 5 | 70-130/30 |
| 108-88-3 | Toluene | ND | | 250 | 293 | 117 | 250 | 277 | 111 | 6 | 70-130/30 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 250 | 186 | 74 | 250 | 271 | 108 | 37* [b] | 70-130/30 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 250 | 204 | 82 | 250 | 236 | 94 | 15 | 70-130/30 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 250 | 259 | 104 | 250 | 238 | 95 | 8 | 70-130/30 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 250 | 296 | 118 | 250 | 283 | 113 | 4 | 70-130/30 |
| 79-01-6 | Trichloroethene | ND | | 250 | 255 | 102 | 250 | 242 | 97 | 5 | 70-130/30 |
| 75-69-4 | Trichlorofluoromethane | ND | | 250 | 224 | 90 | 250 | 202 | 81 | 10 | 70-130/30 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 250 | 340 | 136* [a] | 250 | 331 | 132* [a] | 3 | 70-130/30 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 250 | 286 | 114 | 250 | 270 | 108 | 6 | 70-130/30 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 250 | 294 | 118 | 250 | 276 | 110 | 6 | 70-130/30 |
| 108-05-4 | Vinyl Acetate | ND | | 250 | 256 | 102 | 250 | 240 | 96 | 6 | 70-130/30 |
| 75-01-4 | Vinyl chloride | ND | | 250 | 241 | 96 | 250 | 218 | 87 | 10 | 70-130/30 |
| | m,p-Xylene | ND | | 500 | 585 | 117 | 500 | 561 | 112 | 4 | 70-130/30 |
| 95-47-6 | o-Xylene | ND | | 250 | 293 | 117 | 250 | 282 | 113 | 4 | 70-130/30 |
| 1330-20-7 | Xylene (total) | ND | | 750 | 879 | 117 | 750 | 842 | 112 | 4 | 70-130/30 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29904-2MS | V30472.D | 5 | 04/30/14 | AMY | n/a | n/a | MSV1137 |
| MC29904-2MSD | V30473.D | 5 | 04/30/14 | AMY | n/a | n/a | MSV1137 |
| MC29904-2 | V30459.D | 1 | 04/30/14 | AMY | n/a | n/a | MSV1137 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29882-5

| CAS No. | Surrogate Recoveries | MS | MSD | MC29904-2 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 82% | 80% | 109% | 70-130% |
| 2037-26-5 | Toluene-D8 | 90% | 91% | 95% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 92% | 90% | 92% | 70-130% |

(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:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29882-1MS | V30513.D | 5 | 05/01/14 | AMY | n/a | n/a | MSV1139 |
| MC29882-1MSD | V30514.D | 5 | 05/01/14 | AMY | n/a | n/a | MSV1139 |
| MC29882-1 | V30496.D | 1 | 05/01/14 | AMY | n/a | n/a | MSV1139 |



**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29882-1, MC29882-2, MC29882-3, MC29882-4

| CAS No. | Compound | MC29882-1 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 | 149 | 60* [a] | 250 | 144 | 58* [a] | 3 | 70-130/30 |
| 107-02-8 | Acrolein | ND | | 1250 | 1190 | 95 | 1250 | 1120 | 90 | 6 | 70-130/30 |
| 107-13-1 | Acrylonitrile | ND | | 250 | 247 | 99 | 250 | 224 | 90 | 10 | 70-130/30 |
| 71-43-2 | Benzene | ND | | 250 | 250 | 100 | 250 | 234 | 94 | 7 | 70-130/30 |
| 108-86-1 | Bromobenzene | ND | | 250 | 254 | 102 | 250 | 239 | 96 | 6 | 70-130/30 |
| 74-97-5 | Bromochloromethane | ND | | 250 | 243 | 97 | 250 | 223 | 89 | 9 | 70-130/30 |
| 75-27-4 | Bromodichloromethane | ND | | 250 | 257 | 103 | 250 | 233 | 93 | 10 | 70-130/30 |
| 75-25-2 | Bromoform | ND | | 250 | 216 | 86 | 250 | 200 | 80 | 8 | 70-130/30 |
| 74-83-9 | Bromomethane | ND | | 250 | 253 | 101 | 250 | 235 | 94 | 7 | 70-130/30 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 250 | 206 | 82 | 250 | 188 | 75 | 9 | 70-130/30 |
| 104-51-8 | n-Butylbenzene | ND | | 250 | 265 | 106 | 250 | 252 | 101 | 5 | 70-130/30 |
| 135-98-8 | sec-Butylbenzene | ND | | 250 | 274 | 110 | 250 | 259 | 104 | 6 | 70-130/30 |
| 98-06-6 | tert-Butylbenzene | ND | | 250 | 260 | 104 | 250 | 248 | 99 | 5 | 70-130/30 |
| 75-15-0 | Carbon disulfide | ND | | 250 | 229 | 92 | 250 | 213 | 85 | 7 | 70-130/30 |
| 56-23-5 | Carbon tetrachloride | ND | | 250 | 273 | 109 | 250 | 250 | 100 | 9 | 70-130/30 |
| 108-90-7 | Chlorobenzene | ND | | 250 | 252 | 101 | 250 | 239 | 96 | 5 | 70-130/30 |
| 75-00-3 | Chloroethane | ND | | 250 | 306 | 122 | 250 | 277 | 111 | 10 | 70-130/30 |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | | 250 | ND | 0* [a] | 250 | ND | 0* [a] | nc | 70-130/30 |
| 67-66-3 | Chloroform | ND | | 250 | 242 | 97 | 250 | 221 | 88 | 9 | 70-130/30 |
| 74-87-3 | Chloromethane | ND | | 250 | 259 | 104 | 250 | 243 | 97 | 6 | 70-130/30 |
| 95-49-8 | o-Chlorotoluene | ND | | 250 | 255 | 102 | 250 | 242 | 97 | 5 | 70-130/30 |
| 106-43-4 | p-Chlorotoluene | ND | | 250 | 263 | 105 | 250 | 248 | 99 | 6 | 70-130/30 |
| 124-48-1 | Dibromochloromethane | ND | | 250 | 232 | 93 | 250 | 218 | 87 | 6 | 70-130/30 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 250 | 237 | 95 | 250 | 229 | 92 | 3 | 70-130/30 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 250 | 246 | 98 | 250 | 235 | 94 | 5 | 70-130/30 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 250 | 249 | 100 | 250 | 236 | 94 | 5 | 70-130/30 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 250 | 258 | 103 | 250 | 242 | 97 | 6 | 70-130/30 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 250 | 246 | 98 | 250 | 230 | 92 | 7 | 70-130/30 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 250 | 253 | 101 | 250 | 232 | 93 | 9 | 70-130/30 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 250 | 251 | 100 | 250 | 235 | 94 | 7 | 70-130/30 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 250 | 239 | 96 | 250 | 222 | 89 | 7 | 70-130/30 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 250 | 239 | 96 | 250 | 223 | 89 | 7 | 70-130/30 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 250 | 277 | 111 | 250 | 256 | 102 | 8 | 70-130/30 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 250 | 263 | 105 | 250 | 246 | 98 | 7 | 70-130/30 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 250 | 245 | 98 | 250 | 223 | 89 | 9 | 70-130/30 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 250 | 254 | 102 | 250 | 235 | 94 | 8 | 70-130/30 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29882-1MS | V30513.D | 5 | 05/01/14 | AMY | n/a | n/a | MSV1139 |
| MC29882-1MSD | V30514.D | 5 | 05/01/14 | AMY | n/a | n/a | MSV1139 |
| MC29882-1 | V30496.D | 1 | 05/01/14 | AMY | n/a | n/a | MSV1139 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29882-1, MC29882-2, MC29882-3, MC29882-4

| CAS No. | Compound | MC29882-1 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 | 215 | 86 | 250 | 198 | 79 | 8 | 70-130/30 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 250 | 291 | 116 | 250 | 268 | 107 | 8 | 70-130/30 |
| 123-91-1 | 1,4-Dioxane | ND | | 1250 | 1100 | 88 | 1250 | 1000 | 80 | 10 | 70-130/30 |
| 97-63-2 | Ethyl methacrylate | ND | | 250 | 236 | 94 | 250 | 216 | 86 | 9 | 72-139/30 |
| 100-41-4 | Ethylbenzene | ND | | 250 | 268 | 107 | 250 | 252 | 101 | 6 | 70-130/30 |
| 87-68-3 | Hexachlorobutadiene | ND | | 250 | 206 | 82 | 250 | 204 | 82 | 1 | 70-130/30 |
| 591-78-6 | 2-Hexanone | ND | | 250 | 199 | 80 | 250 | 191 | 76 | 4 | 70-130/30 |
| 98-82-8 | Isopropylbenzene | ND | | 250 | 262 | 105 | 250 | 249 | 100 | 5 | 70-130/30 |
| 99-87-6 | p-Isopropyltoluene | ND | | 250 | 269 | 108 | 250 | 253 | 101 | 6 | 70-130/30 |
| 1634-04-4 | Methyl Tert Butyl Ether | 4.3 | | 250 | 227 | 89 | 250 | 213 | 83 | 6 | 70-130/30 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 250 | 234 | 94 | 250 | 217 | 87 | 8 | 70-130/30 |
| 74-95-3 | Methylene bromide | ND | | 250 | 264 | 106 | 250 | 243 | 97 | 8 | 70-130/30 |
| 75-09-2 | Methylene chloride | ND | | 250 | 239 | 96 | 250 | 224 | 90 | 6 | 70-130/30 |
| 91-20-3 | Naphthalene | ND | | 250 | 143 | 57* [a] | 250 | 218 | 87 | 42* [b] | 70-130/30 |
| 103-65-1 | n-Propylbenzene | ND | | 250 | 264 | 106 | 250 | 249 | 100 | 6 | 70-130/30 |
| 100-42-5 | Styrene | ND | | 250 | 274 | 110 | 250 | 257 | 103 | 6 | 70-130/30 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 250 | 269 | 108 | 250 | 258 | 103 | 4 | 70-130/30 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 250 | 289 | 116 | 250 | 277 | 111 | 4 | 70-130/30 |
| 127-18-4 | Tetrachloroethene | ND | | 250 | 258 | 103 | 250 | 245 | 98 | 5 | 70-130/30 |
| 108-88-3 | Toluene | ND | | 250 | 274 | 110 | 250 | 255 | 102 | 7 | 70-130/30 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 250 | 162 | 65* [a] | 250 | 224 | 90 | 32* [b] | 70-130/30 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 250 | 169 | 68* [a] | 250 | 195 | 78 | 14 | 70-130/30 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 250 | 257 | 103 | 250 | 237 | 95 | 8 | 70-130/30 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 250 | 286 | 114 | 250 | 262 | 105 | 9 | 70-130/30 |
| 79-01-6 | Trichloroethene | ND | | 250 | 242 | 97 | 250 | 225 | 90 | 7 | 70-130/30 |
| 75-69-4 | Trichlorofluoromethane | ND | | 250 | 311 | 124 | 250 | 277 | 111 | 12 | 70-130/30 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 250 | 336 | 134* [a] | 250 | 316 | 126 | 6 | 70-130/30 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 250 | 263 | 105 | 250 | 248 | 99 | 6 | 70-130/30 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 250 | 265 | 106 | 250 | 251 | 100 | 5 | 70-130/30 |
| 108-05-4 | Vinyl Acetate | ND | | 250 | 235 | 94 | 250 | 220 | 88 | 7 | 70-130/30 |
| 75-01-4 | Vinyl chloride | ND | | 250 | 283 | 113 | 250 | 265 | 106 | 7 | 70-130/30 |
| | m,p-Xylene | ND | | 500 | 539 | 108 | 500 | 510 | 102 | 6 | 70-130/30 |
| 95-47-6 | o-Xylene | ND | | 250 | 266 | 106 | 250 | 251 | 100 | 6 | 70-130/30 |
| 1330-20-7 | Xylene (total) | ND | | 750 | 805 | 107 | 750 | 760 | 101 | 6 | 70-130/30 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC29882-1MS | V30513.D | 5 | 05/01/14 | AMY | n/a | n/a | MSV1139 |
| MC29882-1MSD | V30514.D | 5 | 05/01/14 | AMY | n/a | n/a | MSV1139 |
| MC29882-1 | V30496.D | 1 | 05/01/14 | AMY | n/a | n/a | MSV1139 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29882-1, MC29882-2, MC29882-3, MC29882-4

| CAS No. | Surrogate Recoveries | MS | MSD | MC29882-1 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 86% | 84% | 98% | 70-130% |
| 2037-26-5 | Toluene-D8 | 93% | 90% | 88% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 91% | 90% | 92% | 70-130% |

(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.

# Volatile Internal Standard Area Summary



**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSV1137-CC1058 | **Injection Date:** | 04/30/14 |
| **Lab File ID:** | V30448.D | **Injection Time:** | 08:24 |
| **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 | 323603 | 6.51 | 458261 | 7.70 | 225342 | 11.05 | 236581 | 13.27 | 45932 | 3.47 |
| Upper Limit [a] | 647206 | 7.01 | 916522 | 8.20 | 450684 | 11.55 | 473162 | 13.77 | 91864 | 3.97 |
| Lower Limit [b] | 161802 | 6.01 | 229131 | 7.20 | 112671 | 10.55 | 118291 | 12.77 | 22966 | 2.97 |

| Lab Sample ID | IS 1 AREA | RT | IS 2 AREA | RT | IS 3 AREA | RT | IS 4 AREA | RT | IS 5 AREA | RT |
|---|---|---|---|---|---|---|---|---|---|---|
| MSV1137-BS | 323603 | 6.51 | 458261 | 7.70 | 225342 | 11.05 | 236581 | 13.27 | 45932 | 3.47 |
| MSV1137-MB | 203264 | 6.52 | 318418 | 7.71 | 167183 | 11.06 | 152396 | 13.27 | 34979 | 3.47 |
| ZZZZZZ | 197485 | 6.51 | 313848 | 7.70 | 164701 | 11.06 | 149126 | 13.27 | 33222 | 3.46 |
| ZZZZZZ | 183436 | 6.51 | 289201 | 7.70 | 153665 | 11.06 | 139934 | 13.27 | 33220 | 3.46 |
| MC29882-5 | 195035 | 6.52 | 308728 | 7.71 | 164755 | 11.06 | 148204 | 13.27 | 32787 | 3.47 |
| ZZZZZZ | 271796 | 6.52 | 354198 | 7.71 | 177634 | 11.06 | 154160 | 13.27 | 48662 | 3.48 |
| ZZZZZZ | 199586 | 6.52 | 340744 | 7.71 | 165718 | 11.06 | 147960 | 13.27 | 33337 | 3.47 |
| ZZZZZZ | 188814 | 6.52 | 325323 | 7.71 | 158240 | 11.06 | 144553 | 13.27 | 32209 | 3.47 |
| ZZZZZZ | 194279 | 6.52 | 329861 | 7.71 | 164747 | 11.06 | 146674 | 13.27 | 34316 | 3.47 |
| MC29904-2 | 188172 | 6.51 | 291096 | 7.70 | 160175 | 11.06 | 140384 | 13.27 | 33501 | 3.46 |
| ZZZZZZ | 272446 | 6.52 | 362089 | 7.71 | 196177 | 11.06 | 194669 | 13.27 | 41691 | 3.47 |
| ZZZZZZ | 257664 | 6.52 | 391012 | 7.71 | 190881 | 11.06 | 198815 | 13.27 | 43696 | 3.47 |
| ZZZZZZ | 248271 | 6.52 | 352123 | 7.71 | 168120 | 11.06 | 181550 | 13.27 | 67553 | 3.48 |
| ZZZZZZ | 263118 | 6.52 | 391258 | 7.71 | 186410 | 11.06 | 163641 | 13.27 | 44521 | 3.47 |
| ZZZZZZ | 207468 | 6.52 | 343567 | 7.71 | 169440 | 11.06 | 159158 | 13.28 | 39019 | 3.47 |
| ZZZZZZ | 281584 | 6.52 | 374095 | 7.71 | 184949 | 11.06 | 187777 | 13.27 | 64591 | 3.48 |
| ZZZZZZ | 292025 | 6.52 | 389699 | 7.71 | 192712 | 11.06 | 194478 | 13.27 | 59087 | 3.48 |
| ZZZZZZ | 303658 | 6.52 | 428230 | 7.71 | 205632 | 11.06 | 204528 | 13.27 | 56912 | 3.47 |
| ZZZZZZ | 444548 | 6.52 | 615604 | 7.71 | 290641 | 11.06 | 270749 | 13.28 | 207281[c] | 3.48 |
| ZZZZZZ | 339191 | 6.53 | 520392 | 7.71 | 241917 | 11.06 | 230218 | 13.28 | 54990 | 3.48 |
| ZZZZZZ | 375524 | 6.52 | 507310 | 7.71 | 245317 | 11.06 | 238511 | 13.28 | 63105 | 3.48 |
| MC29904-2MS | 395690 | 6.53 | 566626 | 7.72 | 265884 | 11.06 | 265101 | 13.28 | 59093 | 3.48 |
| MC29904-2MSD | 425589 | 6.53 | 608809 | 7.72 | 281998 | 11.06 | 285473 | 13.28 | 65375 | 3.48 |

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:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSV1139-CC1058 | **Injection Date:** | 05/01/14 |
| **Lab File ID:** | V30491.D | **Injection Time:** | 08:32 |
| **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 | 391848 | 6.56 | 560468 | 7.74 | 258265 | 11.08 | 264559 | 13.29 | 63814 | 3.50 |
| Upper Limit [a] | 783696 | 7.06 | 1120936 | 8.24 | 516530 | 11.58 | 529118 | 13.79 | 127628 | 4.00 |
| Lower Limit [b] | 195924 | 6.06 | 280234 | 7.24 | 129133 | 10.58 | 132280 | 12.79 | 31907 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| MSV1139-BS | 391848 | 6.56 | 560468 | 7.74 | 258265 | 11.08 | 264559 | 13.29 | 63814 | 3.50 |
| MSV1139-MB | 293846 | 6.57 | 441329 | 7.75 | 208524 | 11.09 | 193276 | 13.30 | 48373 | 3.51 |
| MC29882-1 | 239762 | 6.57 | 370547 | 7.75 | 178567 | 11.09 | 165225 | 13.30 | 42246 | 3.51 |
| MC29882-2 | 218631 | 6.57 | 352665 | 7.75 | 166211 | 11.09 | 155520 | 13.30 | 36429 | 3.51 |
| MC29882-3 | 220301 | 6.57 | 354283 | 7.75 | 168140 | 11.09 | 155833 | 13.30 | 37284 | 3.51 |
| MC29882-4 | 219227 | 6.57 | 357201 | 7.75 | 167825 | 11.09 | 155044 | 13.30 | 37340 | 3.51 |
| ZZZZZZ | 210132 | 6.57 | 347058 | 7.75 | 167583 | 11.09 | 168477 | 13.30 | 40507 | 3.51 |
| ZZZZZZ | 205277 | 6.57 | 335645 | 7.75 | 160518 | 11.09 | 160872 | 13.30 | 40354 | 3.51 |
| ZZZZZZ | 263123 | 6.57 | 375389 | 7.75 | 174478 | 11.09 | 174923 | 13.30 | 54774 | 3.51 |
| ZZZZZZ | 302167 | 6.57 | 418871 | 7.75 | 196502 | 11.09 | 193852 | 13.30 | 57410 | 3.52 |
| ZZZZZZ | 320501 | 6.57 | 442289 | 7.75 | 199385 | 11.09 | 203450 | 13.30 | 63113 | 3.51 |
| ZZZZZZ | 362896 | 6.57 | 517192 | 7.75 | 239346 | 11.09 | 228581 | 13.30 | 120834 | 3.53 |
| ZZZZZZ | 269079 | 6.57 | 401608 | 7.76 | 191563 | 11.09 | 179548 | 13.30 | 47201 | 3.51 |
| ZZZZZZ | 255909 | 6.58 | 391632 | 7.76 | 186295 | 11.09 | 174673 | 13.30 | 45384 | 3.52 |
| ZZZZZZ | 227328 | 6.58 | 345971 | 7.76 | 169076 | 11.09 | 158226 | 13.30 | 41788 | 3.52 |
| ZZZZZZ | 221449 | 6.58 | 338965 | 7.76 | 172619 | 11.09 | 161004 | 13.30 | 41321 | 3.52 |
| ZZZZZZ | 239654 | 6.58 | 362438 | 7.76 | 169610 | 11.09 | 158097 | 13.30 | 42840 | 3.52 |
| MC29882-1MS | 280212 | 6.58 | 393317 | 7.76 | 191638 | 11.09 | 201834 | 13.30 | 43891 | 3.52 |
| MC29882-1MSD | 316100 | 6.58 | 439388 | 7.76 | 206162 | 11.09 | 217180 | 13.30 | 47949 | 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.

# Volatile Surrogate Recovery Summary



**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 |
|---|---|---|---|---|
| MC29882-1 | V30496.D | 98 | 88 | 92 |
| MC29882-2 | V30497.D | 99 | 86 | 88 |
| MC29882-3 | V30498.D | 103 | 85 | 88 |
| MC29882-4 | V30499.D | 103 | 86 | 90 |
| MC29882-5 | V30454.D | 108 | 94 | 90 |
| MC29882-1MS | V30513.D | 86 | 93 | 91 |
| MC29882-1MSD | V30514.D | 84 | 90 | 90 |
| MC29904-2MS | V30472.D | 82 | 90 | 92 |
| MC29904-2MSD | V30473.D | 80 | 91 | 90 |
| MSV1137-BS | V30448.D | 85 | 93 | 90 |
| MSV1137-MB | V30451.D | 104 | 93 | 89 |
| MSV1139-BS | V30491.D | 81 | 90 | 92 |
| MSV1139-MB | V30494.D | 92 | 87 | 91 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = Dibromofluoromethane | 70-130% |
| S2 = Toluene-D8 | 70-130% |
| S3 = 4-Bromofluorobenzene | 70-130% |

## GC/MS Semi-volatiles

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# 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:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37657-MB | R38279.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29882-2, MC29882-3, MC29882-4

| 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 | 0.31 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 10 | 0.83 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 10 | 0.40 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 10 | 0.56 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 20 | 2.5 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 10 | 0.23 | ug/l | |
| | 3&4-Methylphenol | ND | 10 | 0.47 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 10 | 2.9 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 20 | 0.53 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 10 | 1.1 | ug/l | |
| 108-95-2 | Phenol | ND | 5.0 | 0.30 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 10 | 0.37 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 10 | 0.18 | ug/l | |
| 62-53-3 | Aniline | ND | 10 | 0.64 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.0 | 0.47 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.0 | 0.53 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 10 | 2.3 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.0 | 0.31 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 10 | 0.56 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.0 | 0.29 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.0 | 0.35 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.0 | 0.33 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.0 | 0.25 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.0 | 0.24 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 10 | 0.46 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 10 | 0.30 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.0 | 0.27 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.0 | 0.26 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.68 | 5.0 | 0.17 | ug/l | J |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.0 | 0.28 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.0 | 0.20 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.0 | 0.34 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.0 | 0.33 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.0 | 0.29 | ug/l | |

# Method Blank Summary

**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37657-MB | R38279.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29882-2, MC29882-3, MC29882-4

| 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 | 0.30 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.0 | 0.45 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 0.40 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 1.4 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 2.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.0 | 0.39 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.0 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.0 | 0.40 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.0 | 0.19 | ug/l | |
| 110-86-1 | Pyridine | ND | 10 | 0.52 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 42% | 15-110% |
| 4165-62-2 | Phenol-d5 | 28% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 73% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 72% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 74% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 94% | 30-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile | | 0 | ug/l | |

# Method Blank Summary



**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37681-MB | F72497.D | 1 | 04/22/14 | WK | 04/19/14 | OP37681 | MSF3224 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29882-1

| 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 | 0.31 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 10 | 0.83 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 10 | 0.40 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 10 | 0.56 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 20 | 2.5 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 10 | 0.23 | ug/l | |
| | 3&4-Methylphenol | ND | 10 | 0.47 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 10 | 2.9 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 20 | 0.53 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 10 | 1.1 | ug/l | |
| 108-95-2 | Phenol | ND | 5.0 | 0.30 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 10 | 0.37 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 10 | 0.18 | ug/l | |
| 62-53-3 | Aniline | ND | 10 | 0.64 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.0 | 0.47 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.0 | 0.53 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 10 | 2.3 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.0 | 0.31 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 10 | 0.56 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.0 | 0.29 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.0 | 0.35 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.0 | 0.33 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.0 | 0.25 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.0 | 0.24 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 10 | 0.46 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 10 | 0.30 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.0 | 0.27 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.0 | 0.26 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.37 | 5.0 | 0.17 | ug/l | J |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.0 | 0.28 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.0 | 0.20 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.0 | 0.34 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.0 | 0.33 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.0 | 0.29 | ug/l | |

# Method Blank Summary

**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37681-MB | F72497.D | 1 | 04/22/14 | WK | 04/19/14 | OP37681 | MSF3224 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29882-1

| 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 | 0.30 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.0 | 0.45 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 0.40 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 1.4 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 2.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.0 | 0.39 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.0 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.0 | 0.40 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.0 | 0.19 | ug/l | |
| 110-86-1 | Pyridine | ND | 10 | 0.52 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 29% | 15-110% |
| 4165-62-2 | Phenol-d5 | 19% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 56% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 51% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 54% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 87% | 30-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile | | 0 | ug/l | |

# Method Blank Summary



Job Number: MC29882
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37658-MB | I88679.D | 1 | 04/21/14 | MR | 04/18/14 | OP37658 | MSI3303 |

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC29882-2, MC29882-3, MC29882-4



| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | ND | 0.10 | 0.069 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.10 | 0.050 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.10 | 0.092 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.050 | 0.020 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.10 | 0.029 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.050 | 0.032 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.10 | 0.027 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.10 | 0.039 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.10 | 0.024 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.10 | 0.032 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.10 | 0.041 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.10 | 0.099 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.10 | 0.031 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.20 | 0.050 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.20 | 0.074 | ug/l | |
| 85-01-8 | Phenanthrene | 0.040 | 0.050 | 0.013 | ug/l | J |
| 129-00-0 | Pyrene | ND | 0.10 | 0.038 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 35% | 15-110% |
| 4165-62-2 | Phenol-d5 | 24% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 78% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 72% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 66% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 93% | 30-130% |

# Method Blank Summary



**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37682-MB | I88723.D | 1 | 04/23/14 | MR | 04/19/14 | OP37682 | MSI3305 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D BY SIM

MC29882-1



| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | ND | 0.10 | 0.069 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.10 | 0.050 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.10 | 0.092 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.050 | 0.020 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.10 | 0.029 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.050 | 0.032 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.10 | 0.027 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.10 | 0.039 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.10 | 0.024 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.10 | 0.032 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.10 | 0.041 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.10 | 0.099 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.10 | 0.031 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.20 | 0.050 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.20 | 0.074 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 0.050 | 0.013 | ug/l | |
| 129-00-0 | Pyrene | ND | 0.10 | 0.038 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 25% | 15-110% |
| 4165-62-2 | Phenol-d5 | 17% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 52% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 50% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 48% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 89% | 30-130% |

# Blank Spike Summary



**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37657-BS | R38280.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29882-2, MC29882-3, MC29882-4

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | 50 | 10.9 | 22* [a] | 30-130 |
| 95-57-8 | 2-Chlorophenol | 50 | 38.9 | 78 | 30-130 |
| 59-50-7 | 4-Chloro-3-methyl phenol | 50 | 37.0 | 74 | 30-130 |
| 120-83-2 | 2,4-Dichlorophenol | 50 | 40.1 | 80 | 30-130 |
| 105-67-9 | 2,4-Dimethylphenol | 50 | 32.5 | 65 | 30-130 |
| 51-28-5 | 2,4-Dinitrophenol | 50 | 27.8 | 56 | 30-130 |
| 534-52-1 | 4,6-Dinitro-o-cresol | 50 | 38.5 | 77 | 30-130 |
| 95-48-7 | 2-Methylphenol | 50 | 27.6 | 55 | 30-130 |
| | 3&4-Methylphenol | 100 | 53.3 | 53 | 30-130 |
| 88-75-5 | 2-Nitrophenol | 50 | 40.6 | 81 | 30-130 |
| 100-02-7 | 4-Nitrophenol | 50 | 15.8 | 32 | 30-130 |
| 87-86-5 | Pentachlorophenol | 50 | 40.6 | 81 | 30-130 |
| 108-95-2 | Phenol | 50 | 17.6 | 35 | 30-130 |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | 43.4 | 87 | 30-130 |
| 88-06-2 | 2,4,6-Trichlorophenol | 50 | 44.1 | 88 | 30-130 |
| 62-53-3 | Aniline | 50 | 32.3 | 65 | 40-140 |
| 101-55-3 | 4-Bromophenyl phenyl ether | 50 | 46.6 | 93 | 40-140 |
| 85-68-7 | Butyl benzyl phthalate | 50 | 45.1 | 90 | 40-140 |
| 100-51-6 | Benzyl Alcohol | 50 | 29.4 | 59 | 40-140 |
| 91-58-7 | 2-Chloronaphthalene | 50 | 41.1 | 82 | 40-140 |
| 106-47-8 | 4-Chloroaniline | 50 | 35.5 | 71 | 40-140 |
| 111-91-1 | bis(2-Chloroethoxy)methane | 50 | 38.2 | 76 | 40-140 |
| 111-44-4 | bis(2-Chloroethyl)ether | 50 | 42.3 | 85 | 40-140 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 50 | 44.6 | 89 | 40-140 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 50 | 43.1 | 86 | 40-140 |
| 122-66-7 | 1,2-Diphenylhydrazine | 50 | 39.9 | 80 | 40-140 |
| 121-14-2 | 2,4-Dinitrotoluene | 50 | 45.7 | 91 | 40-140 |
| 606-20-2 | 2,6-Dinitrotoluene | 50 | 44.0 | 88 | 40-140 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 50 | 36.1 | 72 | 40-140 |
| 132-64-9 | Dibenzofuran | 50 | 39.9 | 80 | 40-140 |
| 84-74-2 | Di-n-butyl phthalate | 50 | 43.5 | 87 | 40-140 |
| 117-84-0 | Di-n-octyl phthalate | 50 | 47.3 | 95 | 40-140 |
| 84-66-2 | Diethyl phthalate | 50 | 44.0 | 88 | 40-140 |
| 131-11-3 | Dimethyl phthalate | 50 | 44.1 | 88 | 40-140 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 50 | 45.9 | 92 | 40-140 |
| 118-74-1 | Hexachlorobenzene | 50 | 45.0 | 90 | 40-140 |

* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37657-BS | R38280.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29882-2, MC29882-3, MC29882-4

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 77-47-4 | Hexachlorocyclopentadiene | 50 | 22.9 | 46 | 40-140 |
| 67-72-1 | Hexachloroethane | 50 | 24.0 | 48 | 40-140 |
| 78-59-1 | Isophorone | 50 | 36.2 | 72 | 40-140 |
| 88-74-4 | 2-Nitroaniline | 50 | 43.7 | 87 | 40-140 |
| 99-09-2 | 3-Nitroaniline | 50 | 39.6 | 79 | 40-140 |
| 100-01-6 | 4-Nitroaniline | 50 | 41.3 | 83 | 40-140 |
| 98-95-3 | Nitrobenzene | 50 | 36.6 | 73 | 40-140 |
| 62-75-9 | n-Nitrosodimethylamine | 50 | 28.7 | 57 | 40-140 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 50 | 36.7 | 73 | 40-140 |
| 86-30-6 | N-Nitrosodiphenylamine | 50 | 40.9 | 82 | 40-140 |
| 110-86-1 | Pyridine | 50 | 27.1 | 54 | 40-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 55% | 15-110% |
| 4165-62-2 | Phenol-d5 | 33% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 91% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 79% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 83% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 96% | 30-130% |

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37681-BS | F72498.D | 1 | 04/22/14 | WK | 04/19/14 | OP37681 | MSF3224 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29882-1

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | 50 | 8.9 | 18* [a] | 30-130 |
| 95-57-8 | 2-Chlorophenol | 50 | 35.3 | 71 | 30-130 |
| 59-50-7 | 4-Chloro-3-methyl phenol | 50 | 35.5 | 71 | 30-130 |
| 120-83-2 | 2,4-Dichlorophenol | 50 | 37.0 | 74 | 30-130 |
| 105-67-9 | 2,4-Dimethylphenol | 50 | 33.1 | 66 | 30-130 |
| 51-28-5 | 2,4-Dinitrophenol | 50 | 23.3 | 47 | 30-130 |
| 534-52-1 | 4,6-Dinitro-o-cresol | 50 | 40.6 | 81 | 30-130 |
| 95-48-7 | 2-Methylphenol | 50 | 32.4 | 65 | 30-130 |
| | 3&4-Methylphenol | 100 | 56.7 | 57 | 30-130 |
| 88-75-5 | 2-Nitrophenol | 50 | 39.1 | 78 | 30-130 |
| 100-02-7 | 4-Nitrophenol | 50 | 11.8 | 24* [a] | 30-130 |
| 87-86-5 | Pentachlorophenol | 50 | 35.9 | 72 | 30-130 |
| 108-95-2 | Phenol | 50 | 13.4 | 27* [a] | 30-130 |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | 39.9 | 80 | 30-130 |
| 88-06-2 | 2,4,6-Trichlorophenol | 50 | 38.2 | 76 | 30-130 |
| 62-53-3 | Aniline | 50 | 26.3 | 53 | 40-140 |
| 101-55-3 | 4-Bromophenyl phenyl ether | 50 | 39.9 | 80 | 40-140 |
| 85-68-7 | Butyl benzyl phthalate | 50 | 44.0 | 88 | 40-140 |
| 100-51-6 | Benzyl Alcohol | 50 | 25.0 | 50 | 40-140 |
| 91-58-7 | 2-Chloronaphthalene | 50 | 38.2 | 76 | 40-140 |
| 106-47-8 | 4-Chloroaniline | 50 | 31.7 | 63 | 40-140 |
| 111-91-1 | bis(2-Chloroethoxy)methane | 50 | 38.3 | 77 | 40-140 |
| 111-44-4 | bis(2-Chloroethyl)ether | 50 | 38.1 | 76 | 40-140 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 50 | 46.5 | 93 | 40-140 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 50 | 37.2 | 74 | 40-140 |
| 122-66-7 | 1,2-Diphenylhydrazine | 50 | 39.7 | 79 | 40-140 |
| 121-14-2 | 2,4-Dinitrotoluene | 50 | 40.3 | 81 | 40-140 |
| 606-20-2 | 2,6-Dinitrotoluene | 50 | 39.4 | 79 | 40-140 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 50 | 40.0 | 80 | 40-140 |
| 132-64-9 | Dibenzofuran | 50 | 34.9 | 70 | 40-140 |
| 84-74-2 | Di-n-butyl phthalate | 50 | 41.4 | 83 | 40-140 |
| 117-84-0 | Di-n-octyl phthalate | 50 | 44.6 | 89 | 40-140 |
| 84-66-2 | Diethyl phthalate | 50 | 40.3 | 81 | 40-140 |
| 131-11-3 | Dimethyl phthalate | 50 | 40.4 | 81 | 40-140 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 50 | 46.0 | 92 | 40-140 |
| 118-74-1 | Hexachlorobenzene | 50 | 40.7 | 81 | 40-140 |

* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37681-BS | F72498.D | 1 | 04/22/14 | WK | 04/19/14 | OP37681 | MSF3224 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29882-1

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 77-47-4 | Hexachlorocyclopentadiene | 50 | 22.1 | 44 | 40-140 |
| 67-72-1 | Hexachloroethane | 50 | 32.6 | 65 | 40-140 |
| 78-59-1 | Isophorone | 50 | 34.7 | 69 | 40-140 |
| 88-74-4 | 2-Nitroaniline | 50 | 38.2 | 76 | 40-140 |
| 99-09-2 | 3-Nitroaniline | 50 | 36.4 | 73 | 40-140 |
| 100-01-6 | 4-Nitroaniline | 50 | 39.3 | 79 | 40-140 |
| 98-95-3 | Nitrobenzene | 50 | 36.1 | 72 | 40-140 |
| 62-75-9 | n-Nitrosodimethylamine | 50 | 23.7 | 47 | 40-140 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 50 | 40.0 | 80 | 40-140 |
| 86-30-6 | N-Nitrosodiphenylamine | 50 | 37.8 | 76 | 40-140 |
| 110-86-1 | Pyridine | 50 | 21.1 | 42 | 40-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 41% | 15-110% |
| 4165-62-2 | Phenol-d5 | 27% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 81% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 71% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 73% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 89% | 30-130% |

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

# Blank Spike Summary



Job Number: MC29882
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37658-BS | I88680.D | 1 | 04/21/14 | MR | 04/18/14 | OP37658 | MSI3303 |

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC29882-2, MC29882-3, MC29882-4

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 50 | 36.9 | 74 | 40-140 |
| 208-96-8 | Acenaphthylene | 50 | 34.0 | 68 | 40-140 |
| 120-12-7 | Anthracene | 50 | 37.4 | 75 | 40-140 |
| 56-55-3 | Benzo(a)anthracene | 50 | 41.3 | 83 | 40-140 |
| 50-32-8 | Benzo(a)pyrene | 50 | 39.5 | 79 | 40-140 |
| 205-99-2 | Benzo(b)fluoranthene | 50 | 41.4 | 83 | 40-140 |
| 191-24-2 | Benzo(g,h,i)perylene | 50 | 45.0 | 90 | 40-140 |
| 207-08-9 | Benzo(k)fluoranthene | 50 | 42.8 | 86 | 40-140 |
| 218-01-9 | Chrysene | 50 | 39.3 | 79 | 40-140 |
| 53-70-3 | Dibenzo(a,h)anthracene | 50 | 47.7 | 95 | 40-140 |
| 206-44-0 | Fluoranthene | 50 | 42.5 | 85 | 40-140 |
| 86-73-7 | Fluorene | 50 | 39.9 | 80 | 40-140 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 50 | 45.9 | 92 | 40-140 |
| 90-12-0 | 1-Methylnaphthalene | 50 | 33.5 | 67 | 40-140 |
| 91-57-6 | 2-Methylnaphthalene | 50 | 32.4 | 65 | 40-140 |
| 85-01-8 | Phenanthrene | 50 | 38.4 | 77 | 40-140 |
| 129-00-0 | Pyrene | 50 | 40.9 | 82 | 40-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 39% | 15-110% |
| 4165-62-2 | Phenol-d5 | 25% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 87% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 77% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 75% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 96% | 30-130% |

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37682-BS | I88724.D | 1 | 04/23/14 | MR | 04/19/14 | OP37682 | MSI3305 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D BY SIM

MC29882-1

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 50 | 32.4 | 65 | 40-140 |
| 208-96-8 | Acenaphthylene | 50 | 30.4 | 61 | 40-140 |
| 120-12-7 | Anthracene | 50 | 34.2 | 68 | 40-140 |
| 56-55-3 | Benzo(a)anthracene | 50 | 38.6 | 77 | 40-140 |
| 50-32-8 | Benzo(a)pyrene | 50 | 37.0 | 74 | 40-140 |
| 205-99-2 | Benzo(b)fluoranthene | 50 | 39.7 | 79 | 40-140 |
| 191-24-2 | Benzo(g,h,i)perylene | 50 | 42.4 | 85 | 40-140 |
| 207-08-9 | Benzo(k)fluoranthene | 50 | 39.5 | 79 | 40-140 |
| 218-01-9 | Chrysene | 50 | 37.4 | 75 | 40-140 |
| 53-70-3 | Dibenzo(a,h)anthracene | 50 | 44.7 | 89 | 40-140 |
| 206-44-0 | Fluoranthene | 50 | 37.8 | 76 | 40-140 |
| 86-73-7 | Fluorene | 50 | 34.8 | 70 | 40-140 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 50 | 43.1 | 86 | 40-140 |
| 90-12-0 | 1-Methylnaphthalene | 50 | 31.2 | 62 | 40-140 |
| 91-57-6 | 2-Methylnaphthalene | 50 | 31.2 | 62 | 40-140 |
| 85-01-8 | Phenanthrene | 50 | 34.3 | 69 | 40-140 |
| 129-00-0 | Pyrene | 50 | 37.8 | 76 | 40-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 34% | 15-110% |
| 4165-62-2 | Phenol-d5 | 22% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 77% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 68% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 66% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 88% | 30-130% |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: MC29882
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37657-MS | R38281.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |
| OP37657-MSD | R38282.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |
| MC29400-19 | R38283.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |

The QC reported here applies to the following samples: Method: SW846 8270D

MC29882-2, MC29882-3, MC29882-4

| CAS No. | Compound | MC29400-19 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 | 12.7 | 25* [a] | 50 | 12.9 | 26* [a] | 2 | 30-130/20 |
| 95-57-8 | 2-Chlorophenol | ND | | 50 | 36.2 | 72 | 50 | 34.3 | 69 | 5 | 30-130/20 |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | | 50 | 39.3 | 79 | 50 | 36.7 | 73 | 7 | 30-130/20 |
| 120-83-2 | 2,4-Dichlorophenol | ND | | 50 | 41.7 | 83 | 50 | 39.0 | 78 | 7 | 30-130/20 |
| 105-67-9 | 2,4-Dimethylphenol | ND | | 50 | 33.8 | 68 | 50 | 30.1 | 60 | 12 | 30-130/20 |
| 51-28-5 | 2,4-Dinitrophenol | ND | | 50 | 30.7 | 61 | 50 | 30.9 | 62 | 1 | 30-130/20 |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | | 50 | 41.6 | 83 | 50 | 41.0 | 82 | 1 | 30-130/20 |
| 95-48-7 | 2-Methylphenol | ND | | 50 | 30.6 | 61 | 50 | 28.3 | 57 | 8 | 30-130/20 |
| | 3&4-Methylphenol | ND | | 100 | 60.6 | 61 | 100 | 54.5 | 55 | 11 | 30-130/20 |
| 88-75-5 | 2-Nitrophenol | ND | | 50 | 43.2 | 86 | 50 | 39.0 | 78 | 10 | 30-130/20 |
| 100-02-7 | 4-Nitrophenol | ND | | 50 | 16.1 | 32 | 50 | 15.7 | 31 | 3 | 30-130/20 |
| 87-86-5 | Pentachlorophenol | ND | | 50 | 41.5 | 83 | 50 | 40.0 | 80 | 4 | 30-130/20 |
| 108-95-2 | Phenol | ND | | 50 | 15.5 | 31 | 50 | 14.7 | 29* [b] | 5 | 30-130/20 |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | | 50 | 44.6 | 89 | 50 | 41.6 | 83 | 7 | 30-130/20 |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | | 50 | 44.9 | 90 | 50 | 42.6 | 85 | 5 | 30-130/20 |
| 62-53-3 | Aniline | ND | | 50 | 29.4 | 59 | 50 | 28.4 | 57 | 3 | 40-140/20 |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | | 50 | 47.5 | 95 | 50 | 46.1 | 92 | 3 | 40-140/20 |
| 85-68-7 | Butyl benzyl phthalate | ND | | 50 | 46.0 | 92 | 50 | 44.7 | 89 | 3 | 40-140/20 |
| 100-51-6 | Benzyl Alcohol | ND | | 50 | 33.9 | 68 | 50 | 30.8 | 62 | 10 | 40-140/20 |
| 91-58-7 | 2-Chloronaphthalene | ND | | 50 | 44.0 | 88 | 50 | 40.5 | 81 | 8 | 40-140/20 |
| 106-47-8 | 4-Chloroaniline | ND | | 50 | 37.5 | 75 | 50 | 34.4 | 69 | 9 | 40-140/20 |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | | 50 | 39.8 | 80 | 50 | 37.1 | 74 | 7 | 40-140/20 |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | | 50 | 37.1 | 74 | 50 | 36.8 | 74 | 1 | 40-140/20 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | | 50 | 47.7 | 95 | 50 | 46.5 | 93 | 3 | 40-140/20 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | | 50 | 44.7 | 89 | 50 | 42.6 | 85 | 5 | 40-140/20 |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | | 50 | 41.1 | 82 | 50 | 40.1 | 80 | 2 | 40-140/20 |
| 121-14-2 | 2,4-Dinitrotoluene | ND | | 50 | 47.6 | 95 | 50 | 45.5 | 91 | 5 | 40-140/20 |
| 606-20-2 | 2,6-Dinitrotoluene | ND | | 50 | 45.3 | 91 | 50 | 43.5 | 87 | 4 | 40-140/20 |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | | 50 | 38.1 | 76 | 50 | 37.7 | 75 | 1 | 40-140/20 |
| 132-64-9 | Dibenzofuran | ND | | 50 | 40.9 | 82 | 50 | 39.3 | 79 | 4 | 40-140/20 |
| 84-74-2 | Di-n-butyl phthalate | 0.73 | J | 50 | 44.7 | 88 | 50 | 43.1 | 85 | 4 | 40-140/20 |
| 117-84-0 | Di-n-octyl phthalate | ND | | 50 | 47.4 | 95 | 50 | 45.6 | 91 | 4 | 40-140/20 |
| 84-66-2 | Diethyl phthalate | ND | | 50 | 45.5 | 91 | 50 | 44.3 | 89 | 3 | 40-140/20 |
| 131-11-3 | Dimethyl phthalate | ND | | 50 | 45.9 | 92 | 50 | 44.3 | 89 | 4 | 40-140/20 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | | 50 | 46.9 | 94 | 50 | 45.5 | 91 | 3 | 40-140/20 |
| 118-74-1 | Hexachlorobenzene | ND | | 50 | 46.3 | 93 | 50 | 44.6 | 89 | 4 | 40-140/20 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37657-MS | R38281.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |
| OP37657-MSD | R38282.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |
| MC29400-19 | R38283.D | 1 | 04/21/14 | WK | 04/18/14 | OP37657 | MSR1411 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29882-2, MC29882-3, MC29882-4

| CAS No. | Compound | MC29400-19 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 | 24.0 | 48 | 50 | 22.1 | 44 | 8 | 40-140/20 |
| 67-72-1 | Hexachloroethane | ND | | 50 | 27.4 | 55 | 50 | 26.3 | 53 | 4 | 40-140/20 |
| 78-59-1 | Isophorone | ND | | 50 | 38.0 | 76 | 50 | 36.4 | 73 | 4 | 40-140/20 |
| 88-74-4 | 2-Nitroaniline | ND | | 50 | 45.4 | 91 | 50 | 43.8 | 88 | 4 | 40-140/20 |
| 99-09-2 | 3-Nitroaniline | ND | | 50 | 41.5 | 83 | 50 | 39.2 | 78 | 6 | 40-140/20 |
| 100-01-6 | 4-Nitroaniline | ND | | 50 | 41.9 | 84 | 50 | 40.4 | 81 | 4 | 40-140/20 |
| 98-95-3 | Nitrobenzene | ND | | 50 | 37.9 | 76 | 50 | 36.1 | 72 | 5 | 40-140/20 |
| 62-75-9 | n-Nitrosodimethylamine | ND | | 50 | 31.0 | 62 | 50 | 30.3 | 61 | 2 | 40-140/20 |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | | 50 | 41.4 | 83 | 50 | 37.7 | 75 | 9 | 40-140/20 |
| 86-30-6 | N-Nitrosodiphenylamine | ND | | 50 | 41.8 | 84 | 50 | 40.2 | 80 | 4 | 40-140/20 |
| 110-86-1 | Pyridine | ND | | 50 | 29.2 | 58 | 50 | 28.9 | 58 | 1 | 40-140/20 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29400-19 | Limits |
|---|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 45% | 47% | 38% | 15-110% |
| 4165-62-2 | Phenol-d5 | 30% | 28% | 24% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 91% | 89% | 74% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 76% | 74% | 72% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 84% | 78% | 64% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 93% | 91% | 90% | 30-130% |

(a) Outside control limits. Blank Spike meets program technical requirements.
(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: MC29882
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37681-MS | F72499.D | 1 | 04/22/14 | WK | 04/19/14 | OP37681 | MSF3224 |
| OP37681-MSD | F72500.D | 1 | 04/22/14 | WK | 04/19/14 | OP37681 | MSF3224 |
| MC29400-26 | F72501.D | 1 | 04/22/14 | WK | 04/19/14 | OP37681 | MSF3224 |

The QC reported here applies to the following samples: Method: SW846 8270D

MC29882-1



| CAS No. | Compound | MC29400-26 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 | 8.1 | 16* a | 50 | 8.7 | 17* a | 7 | 30-130/20 |
| 95-57-8 | 2-Chlorophenol | ND | | 50 | 30.6 | 61 | 50 | 32.4 | 65 | 6 | 30-130/20 |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | | 50 | 31.7 | 63 | 50 | 33.7 | 67 | 6 | 30-130/20 |
| 120-83-2 | 2,4-Dichlorophenol | ND | | 50 | 31.9 | 64 | 50 | 33.7 | 67 | 5 | 30-130/20 |
| 105-67-9 | 2,4-Dimethylphenol | ND | | 50 | 28.0 | 56 | 50 | 30.4 | 61 | 8 | 30-130/20 |
| 51-28-5 | 2,4-Dinitrophenol | ND | | 50 | 22.7 | 45 | 50 | 23.8 | 48 | 5 | 30-130/20 |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | | 50 | 38.6 | 77 | 50 | 40.8 | 82 | 6 | 30-130/20 |
| 95-48-7 | 2-Methylphenol | ND | | 50 | 27.6 | 55 | 50 | 29.8 | 60 | 8 | 30-130/20 |
| | 3&4-Methylphenol | ND | | 100 | 49.8 | 50 | 100 | 53.6 | 54 | 7 | 30-130/20 |
| 88-75-5 | 2-Nitrophenol | ND | | 50 | 32.9 | 66 | 50 | 35.6 | 71 | 8 | 30-130/20 |
| 100-02-7 | 4-Nitrophenol | ND | | 50 | 11.7 | 23* a | 50 | 12.8 | 26* a | 9 | 30-130/20 |
| 87-86-5 | Pentachlorophenol | ND | | 50 | 34.0 | 68 | 50 | 34.1 | 68 | 0 | 30-130/20 |
| 108-95-2 | Phenol | ND | | 50 | 11.6 | 23* a | 50 | 13.1 | 26* a | 12 | 30-130/20 |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | | 50 | 34.6 | 69 | 50 | 38.2 | 76 | 10 | 30-130/20 |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | | 50 | 33.6 | 67 | 50 | 35.4 | 71 | 5 | 30-130/20 |
| 62-53-3 | Aniline | ND | | 50 | 22.7 | 45 | 50 | 24.0 | 48 | 6 | 40-140/20 |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | | 50 | 36.4 | 73 | 50 | 38.3 | 77 | 5 | 40-140/20 |
| 85-68-7 | Butyl benzyl phthalate | ND | | 50 | 42.3 | 85 | 50 | 42.6 | 85 | 1 | 40-140/20 |
| 100-51-6 | Benzyl Alcohol | ND | | 50 | 22.3 | 45 | 50 | 23.5 | 47 | 5 | 40-140/20 |
| 91-58-7 | 2-Chloronaphthalene | ND | | 50 | 34.7 | 69 | 50 | 36.3 | 73 | 5 | 40-140/20 |
| 106-47-8 | 4-Chloroaniline | ND | | 50 | 28.1 | 56 | 50 | 29.3 | 59 | 4 | 40-140/20 |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | | 50 | 33.4 | 67 | 50 | 34.6 | 69 | 4 | 40-140/20 |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | | 50 | 33.2 | 66 | 50 | 34.6 | 69 | 4 | 40-140/20 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | | 50 | 40.4 | 81 | 50 | 42.7 | 85 | 6 | 40-140/20 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | | 50 | 34.3 | 69 | 50 | 36.3 | 73 | 6 | 40-140/20 |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | | 50 | 35.9 | 72 | 50 | 38.4 | 77 | 7 | 40-140/20 |
| 121-14-2 | 2,4-Dinitrotoluene | ND | | 50 | 39.0 | 78 | 50 | 40.4 | 81 | 4 | 40-140/20 |
| 606-20-2 | 2,6-Dinitrotoluene | ND | | 50 | 35.8 | 72 | 50 | 38.6 | 77 | 8 | 40-140/20 |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | | 50 | 39.3 | 79 | 50 | 41.3 | 83 | 5 | 40-140/20 |
| 132-64-9 | Dibenzofuran | ND | | 50 | 31.9 | 64 | 50 | 33.6 | 67 | 5 | 40-140/20 |
| 84-74-2 | Di-n-butyl phthalate | 0.33 | J | 50 | 39.6 | 79 | 50 | 40.9 | 81 | 3 | 40-140/20 |
| 117-84-0 | Di-n-octyl phthalate | ND | | 50 | 42.9 | 86 | 50 | 44.2 | 88 | 3 | 40-140/20 |
| 84-66-2 | Diethyl phthalate | ND | | 50 | 38.1 | 76 | 50 | 39.7 | 79 | 4 | 40-140/20 |
| 131-11-3 | Dimethyl phthalate | ND | | 50 | 36.8 | 74 | 50 | 39.0 | 78 | 6 | 40-140/20 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | | 50 | 43.8 | 88 | 50 | 45.1 | 90 | 3 | 40-140/20 |
| 118-74-1 | Hexachlorobenzene | ND | | 50 | 37.4 | 75 | 50 | 39.3 | 79 | 5 | 40-140/20 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC29882
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37681-MS | F72499.D | 1 | 04/22/14 | WK | 04/19/14 | OP37681 | MSF3224 |
| OP37681-MSD | F72500.D | 1 | 04/22/14 | WK | 04/19/14 | OP37681 | MSF3224 |
| MC29400-26 | F72501.D | 1 | 04/22/14 | WK | 04/19/14 | OP37681 | MSF3224 |

The QC reported here applies to the following samples: Method: SW846 8270D

MC29882-1

| CAS No. | Compound | MC29400-26 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 | 19.6 | 39* [b] | 50 | 20.7 | 41 | 5 | 40-140/20 |
| 67-72-1 | Hexachloroethane | ND | | 50 | 27.8 | 56 | 50 | 29.4 | 59 | 6 | 40-140/20 |
| 78-59-1 | Isophorone | ND | | 50 | 30.2 | 60 | 50 | 31.8 | 64 | 5 | 40-140/20 |
| 88-74-4 | 2-Nitroaniline | ND | | 50 | 35.5 | 71 | 50 | 37.2 | 74 | 5 | 40-140/20 |
| 99-09-2 | 3-Nitroaniline | ND | | 50 | 34.7 | 69 | 50 | 36.8 | 74 | 6 | 40-140/20 |
| 100-01-6 | 4-Nitroaniline | ND | | 50 | 38.6 | 77 | 50 | 39.0 | 78 | 1 | 40-140/20 |
| 98-95-3 | Nitrobenzene | ND | | 50 | 31.4 | 63 | 50 | 32.4 | 65 | 3 | 40-140/20 |
| 62-75-9 | n-Nitrosodimethylamine | ND | | 50 | 21.1 | 42 | 50 | 22.4 | 45 | 6 | 40-140/20 |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | | 50 | 34.7 | 69 | 50 | 36.5 | 73 | 5 | 40-140/20 |
| 86-30-6 | N-Nitrosodiphenylamine | ND | | 50 | 35.1 | 70 | 50 | 37.1 | 74 | 6 | 40-140/20 |
| 110-86-1 | Pyridine | ND | | 50 | 17.8 | 36* [b] | 50 | 19.6 | 39* [b] | 10 | 40-140/20 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29400-26 | Limits |
|---|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 35% | 37% | 39% | 15-110% |
| 4165-62-2 | Phenol-d5 | 23% | 25% | 25% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 74% | 77% | 69% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 58% | 62% | 68% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 64% | 66% | 71% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 83% | 84% | 88% | 30-130% |

(a) Outside control limits. Blank Spike meets program technical requirements.
(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: MC29882
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37658-MS | I88681.D | 1 | 04/21/14 | MR | 04/18/14 | OP37658 | MSI3303 |
| OP37658-MSD | I88682.D | 1 | 04/21/14 | MR | 04/18/14 | OP37658 | MSI3303 |
| MC29400-20 | I88683.D | 1 | 04/21/14 | MR | 04/18/14 | OP37658 | MSI3303 |

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC29882-2, MC29882-3, MC29882-4



| CAS No. | Compound | MC29400-20 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 | 38.0 | 76 | 50 | 36.3 | 73 | 5 | 40-140/20 |
| 208-96-8 | Acenaphthylene | ND | | 50 | 34.9 | 70 | 50 | 33.4 | 67 | 4 | 40-140/20 |
| 120-12-7 | Anthracene | ND | | 50 | 37.4 | 75 | 50 | 36.8 | 74 | 2 | 40-140/20 |
| 56-55-3 | Benzo(a)anthracene | ND | | 50 | 42.1 | 84 | 50 | 41.1 | 82 | 2 | 40-140/20 |
| 50-32-8 | Benzo(a)pyrene | ND | | 50 | 39.6 | 79 | 50 | 38.6 | 77 | 3 | 40-140/20 |
| 205-99-2 | Benzo(b)fluoranthene | ND | | 50 | 43.4 | 87 | 50 | 41.8 | 84 | 4 | 40-140/20 |
| 191-24-2 | Benzo(g,h,i)perylene | ND | | 50 | 45.4 | 91 | 50 | 44.3 | 89 | 2 | 40-140/20 |
| 207-08-9 | Benzo(k)fluoranthene | ND | | 50 | 42.0 | 84 | 50 | 41.3 | 83 | 2 | 40-140/20 |
| 218-01-9 | Chrysene | ND | | 50 | 40.2 | 80 | 50 | 39.5 | 79 | 2 | 40-140/20 |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | | 50 | 48.0 | 96 | 50 | 46.7 | 93 | 3 | 40-140/20 |
| 206-44-0 | Fluoranthene | ND | | 50 | 43.1 | 86 | 50 | 41.7 | 83 | 3 | 40-140/20 |
| 86-73-7 | Fluorene | ND | | 50 | 40.2 | 80 | 50 | 39.3 | 79 | 2 | 40-140/20 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | | 50 | 46.2 | 92 | 50 | 45.0 | 90 | 3 | 40-140/20 |
| 90-12-0 | 1-Methylnaphthalene | ND | | 50 | 35.4 | 71 | 50 | 33.5 | 67 | 6 | 40-140/20 |
| 91-57-6 | 2-Methylnaphthalene | ND | | 50 | 34.2 | 68 | 50 | 32.5 | 65 | 5 | 40-140/20 |
| 85-01-8 | Phenanthrene | ND | | 50 | 38.2 | 76 | 50 | 37.1 | 74 | 3 | 40-140/20 |
| 129-00-0 | Pyrene | ND | | 50 | 42.0 | 84 | 50 | 40.4 | 81 | 4 | 40-140/20 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29400-20 | Limits |
|---|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 38% | 38% | 33% | 15-110% |
| 4165-62-2 | Phenol-d5 | 26% | 24% | 22% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 85% | 83% | 76% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 76% | 73% | 67% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 75% | 72% | 61% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 94% | 92% | 89% | 30-130% |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: MC29882
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37682-MS | I88725.D | 1 | 04/23/14 | MR | 04/19/14 | OP37682 | MSI3305 |
| OP37682-MSD | I88726.D | 1 | 04/23/14 | MR | 04/19/14 | OP37682 | MSI3305 |
| MC29400-27 | I88727.D | 1 | 04/23/14 | MR | 04/19/14 | OP37682 | MSI3305 |

The QC reported here applies to the following samples: Method: SW846 8270D BY SIM

MC29882-1



| CAS No. | Compound | MC29400-27 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 | 29.0 | 58 | 50 | 30.4 | 61 | 5 | 40-140/20 |
| 208-96-8 | Acenaphthylene | ND | | 50 | 27.1 | 54 | 50 | 28.2 | 56 | 4 | 40-140/20 |
| 120-12-7 | Anthracene | ND | | 50 | 31.8 | 64 | 50 | 33.1 | 66 | 4 | 40-140/20 |
| 56-55-3 | Benzo(a)anthracene | ND | | 50 | 37.2 | 74 | 50 | 37.9 | 76 | 2 | 40-140/20 |
| 50-32-8 | Benzo(a)pyrene | ND | | 50 | 35.1 | 70 | 50 | 36.2 | 72 | 3 | 40-140/20 |
| 205-99-2 | Benzo(b)fluoranthene | ND | | 50 | 37.5 | 75 | 50 | 40.2 | 80 | 7 | 40-140/20 |
| 191-24-2 | Benzo(g,h,i)perylene | ND | | 50 | 40.4 | 81 | 50 | 41.4 | 83 | 2 | 40-140/20 |
| 207-08-9 | Benzo(k)fluoranthene | ND | | 50 | 37.6 | 75 | 50 | 37.2 | 74 | 1 | 40-140/20 |
| 218-01-9 | Chrysene | ND | | 50 | 35.5 | 71 | 50 | 36.5 | 73 | 3 | 40-140/20 |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | | 50 | 42.6 | 85 | 50 | 43.5 | 87 | 2 | 40-140/20 |
| 206-44-0 | Fluoranthene | ND | | 50 | 36.2 | 72 | 50 | 37.5 | 75 | 4 | 40-140/20 |
| 86-73-7 | Fluorene | ND | | 50 | 31.4 | 63 | 50 | 32.9 | 66 | 5 | 40-140/20 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | | 50 | 41.2 | 82 | 50 | 42.0 | 84 | 2 | 40-140/20 |
| 90-12-0 | 1-Methylnaphthalene | ND | | 50 | 27.6 | 55 | 50 | 29.4 | 59 | 6 | 40-140/20 |
| 91-57-6 | 2-Methylnaphthalene | ND | | 50 | 27.4 | 55 | 50 | 28.3 | 57 | 3 | 40-140/20 |
| 85-01-8 | Phenanthrene | 0.021 | J | 50 | 32.3 | 65 | 50 | 33.7 | 67 | 4 | 40-140/20 |
| 129-00-0 | Pyrene | ND | | 50 | 36.1 | 72 | 50 | 37.6 | 75 | 4 | 40-140/20 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29400-27 | Limits |
|---|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 29% | 31% | 33% | 15-110% |
| 4165-62-2 | Phenol-d5 | 19% | 20% | 22% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 69% | 74% | 67% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 58% | 60% | 64% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 55% | 59% | 63% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 82% | 84% | 88% | 30-130% |

* = Outside of Control Limits.

# Semivolatile Internal Standard Area Summary



**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSF3224-CC3181 | **Injection Date:** | 04/22/14 |
| **Lab File ID:** | F72496.D | **Injection Time:** | 16:51 |
| **Instrument ID:** | GCMSF | **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 | 648331 | 4.06 | 2376802 | 5.11 | 1429595 | 6.62 | 2439643 | 7.92 | 2718217 | 10.45 | 2684681 | 12.12 |
| Upper Limit [a] | 1296662 | 4.56 | 4753604 | 5.61 | 2859190 | 7.12 | 4879286 | 8.42 | 5436434 | 10.95 | 5369362 | 12.62 |
| Lower Limit [b] | 324166 | 3.56 | 1188401 | 4.61 | 714798 | 6.12 | 1219822 | 7.42 | 1359109 | 9.95 | 1342341 | 11.62 |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OP37681-MB | 675412 | 4.06 | 2481230 | 5.10 | 1476616 | 6.62 | 2525372 | 7.91 | 2791721 | 10.44 | 2726880 | 12.12 |
| OP37681-BS | 655741 | 4.06 | 2438744 | 5.11 | 1457379 | 6.62 | 2471853 | 7.92 | 2684057 | 10.45 | 2691641 | 12.12 |
| OP37681-MS | 701088 | 4.06 | 2582474 | 5.11 | 1526956 | 6.62 | 2643954 | 7.92 | 2851850 | 10.45 | 2853260 | 12.12 |
| OP37681-MSD | 612552 | 4.06 | 2276523 | 5.10 | 1344134 | 6.62 | 2332731 | 7.91 | 2562398 | 10.45 | 2534684 | 12.12 |
| MC29400-26 | 636534 | 4.06 | 2358291 | 5.11 | 1414416 | 6.62 | 2419108 | 7.91 | 2661529 | 10.44 | 2581224 | 12.12 |
| ZZZZZZ | 650285 | 4.06 | 2374355 | 5.11 | 1416948 | 6.62 | 2428646 | 7.92 | 2699018 | 10.44 | 2554667 | 12.12 |
| ZZZZZZ | 662189 | 4.06 | 2438542 | 5.10 | 1465571 | 6.62 | 2471203 | 7.91 | 2749899 | 10.45 | 2657355 | 12.11 |
| MC29882-1 | 670736 | 4.06 | 2453552 | 5.10 | 1454869 | 6.62 | 2484949 | 7.91 | 2803868 | 10.44 | 2772859 | 12.12 |
| ZZZZZZ | 637070 | 4.06 | 2381538 | 5.11 | 1428650 | 6.62 | 2468991 | 7.92 | 2996752 | 10.45 | 2839163 | 12.12 |
| OP37690-MB | 756680 | 4.06 | 2805994 | 5.11 | 1655638 | 6.62 | 2746623 | 7.92 | 2915363 | 10.44 | 2847121 | 12.12 |
| OP37690-BS | 749572 | 4.06 | 2711990 | 5.11 | 1623078 | 6.62 | 2695819 | 7.92 | 2779034 | 10.45 | 2647790 | 12.12 |
| OP37690-MS | 879503 | 4.06 | 3161536 | 5.11 | 1864842 | 6.62 | 3037187 | 7.92 | 3102986 | 10.45 | 3020466 | 12.12 |
| OP37690-MSD | 788924 | 4.06 | 2923192 | 5.11 | 1718484 | 6.62 | 2834073 | 7.92 | 2873827 | 10.45 | 2721331 | 12.12 |
| MC29921-2 | 744833 | 4.06 | 2753757 | 5.11 | 1627521 | 6.62 | 2666273 | 7.91 | 2778525 | 10.44 | 2633341 | 12.12 |
| ZZZZZZ | 819157 | 4.07 | 3015626 | 5.11 | 1801170 | 6.62 | 2968911 | 7.91 | 3093986 | 10.45 | 2911084 | 12.12 |
| ZZZZZZ | 831793 | 4.06 | 3057207 | 5.10 | 1802229 | 6.62 | 3004437 | 7.91 | 3022326 | 10.45 | 2901054 | 12.12 |
| ZZZZZZ | 811388 | 4.06 | 2993489 | 5.11 | 1766115 | 6.62 | 2886362 | 7.92 | 2963697 | 10.45 | 2815086 | 12.12 |
| ZZZZZZ | 738856 | 4.06 | 2728624 | 5.11 | 1609926 | 6.62 | 2634393 | 7.92 | 2751668 | 10.44 | 2550156 | 12.12 |
| ZZZZZZ | 808545 | 4.06 | 2952241 | 5.11 | 1729123 | 6.62 | 2856689 | 7.92 | 2937272 | 10.45 | 2829983 | 12.12 |
| ZZZZZZ | 799283 | 4.06 | 2941472 | 5.10 | 1740887 | 6.62 | 2877333 | 7.91 | 2957562 | 10.45 | 2796825 | 12.12 |
| ZZZZZZ | 611150 | 4.06 | 2196997 | 5.10 | 1324937 | 6.62 | 2205912 | 7.91 | 2459515 | 10.45 | 2469499 | 12.11 |
| ZZZZZZ | 882131 | 4.07 | 3195683 | 5.11 | 1845006 | 6.62 | 2972580 | 7.91 | 3117992 | 10.45 | 3150675 | 12.12 |
| ZZZZZZ | 827091 | 4.06 | 2997675 | 5.11 | 1772597 | 6.62 | 2880914 | 7.92 | 2931546 | 10.45 | 2890266 | 12.12 |
| ZZZZZZ | 637127 | 4.06 | 2344045 | 5.11 | 1372053 | 6.62 | 2290494 | 7.92 | 2691615 | 10.45 | 2856859 | 12.12 |

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:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSI3303-CC3238 | **Injection Date:** | 04/21/14 |
| **Lab File ID:** | I88677.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 | 263580 | 3.97 | 615489 | 5.02 | 360317 | 6.54 | 617721 | 7.91 | 446343 | 10.69 | 1103240 | 12.16 |
| Upper Limit [a] | 527160 | 4.47 | 1230978 | 5.52 | 720634 | 7.04 | 1235442 | 8.41 | 892686 | 11.19 | 2206480 | 12.66 |
| Lower Limit [b] | 131790 | 3.47 | 307745 | 4.52 | 180159 | 6.04 | 308861 | 7.41 | 223172 | 10.19 | 551620 | 11.66 |

| 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 | 296697 | 3.97 | 681645 | 5.02 | 409354 | 6.54 | 692527 | 7.91 | 498806 | 10.69 | 1246718 | 12.17 |
| OP37658-MB | 305575 | 3.97 | 715366 | 5.02 | 422793 | 6.54 | 710683 | 7.91 | 520447 | 10.69 | 1298502 | 12.17 |
| OP37658-BS | 299871 | 3.98 | 693087 | 5.02 | 401596 | 6.55 | 670124 | 7.92 | 489040 | 10.69 | 1170448 | 12.17 |
| OP37658-MS | 288985 | 3.97 | 683969 | 5.02 | 397025 | 6.54 | 667934 | 7.92 | 481210 | 10.69 | 1168091 | 12.17 |
| OP37658-MSD | 295308 | 3.98 | 689546 | 5.02 | 402201 | 6.54 | 673506 | 7.92 | 489209 | 10.69 | 1187613 | 12.17 |
| MC29400-20 | 283311 | 3.97 | 670168 | 5.02 | 390149 | 6.54 | 658059 | 7.91 | 471554 | 10.69 | 1168718 | 12.16 |
| ZZZZZZ | 290645 | 3.97 | 685599 | 5.02 | 397290 | 6.54 | 672085 | 7.91 | 480521 | 10.69 | 1196916 | 12.16 |
| ZZZZZZ | 302113 | 3.97 | 711607 | 5.02 | 410128 | 6.54 | 688701 | 7.91 | 493553 | 10.69 | 1215626 | 12.17 |
| ZZZZZZ | 286241 | 3.97 | 682797 | 5.02 | 394750 | 6.54 | 669422 | 7.91 | 478585 | 10.69 | 1182887 | 12.16 |
| ZZZZZZ | 295642 | 3.98 | 696807 | 5.02 | 398930 | 6.54 | 666871 | 7.91 | 476789 | 10.69 | 1182312 | 12.17 |
| ZZZZZZ | 285543 | 3.98 | 672895 | 5.02 | 382809 | 6.54 | 629632 | 7.91 | 454825 | 10.69 | 1115295 | 12.16 |
| ZZZZZZ | 315665 | 3.98 | 737174 | 5.02 | 419700 | 6.54 | 693089 | 7.91 | 488621 | 10.69 | 1204401 | 12.16 |
| MC29882-2 | 292439 | 3.97 | 676938 | 5.02 | 398787 | 6.54 | 667728 | 7.91 | 482467 | 10.69 | 1190658 | 12.17 |
| MC29882-3 | 277505 | 3.98 | 649163 | 5.02 | 375932 | 6.54 | 632184 | 7.91 | 446466 | 10.69 | 1105543 | 12.16 |
| MC29882-4 | 281677 | 3.98 | 653540 | 5.02 | 382818 | 6.54 | 642708 | 7.91 | 464204 | 10.69 | 1120329 | 12.16 |

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:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSI3305-CC3238 | **Injection Date:** | 04/23/14 |
| **Lab File ID:** | I88719.D | **Injection Time:** | 08:07 |
| **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 | 262938 | 3.96 | 613173 | 5.01 | 359756 | 6.53 | 607103 | 7.89 | 448501 | 10.67 | 1119205 | 12.15 |
| Upper Limit [a] | 525876 | 4.46 | 1226346 | 5.51 | 719512 | 7.03 | 1214206 | 8.39 | 897002 | 11.17 | 2238410 | 12.65 |
| Lower Limit [b] | 131469 | 3.46 | 306587 | 4.51 | 179878 | 6.03 | 303552 | 7.39 | 224251 | 10.17 | 559603 | 11.65 |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OP37700-MB | 257731 | 3.96 | 605476 | 5.01 | 349264 | 6.53 | 596558 | 7.89 | 451473 | 10.67 | 1128041 | 12.15 |
| OP37700-BS | 256773 | 3.96 | 596664 | 5.01 | 347066 | 6.53 | 582130 | 7.90 | 433621 | 10.68 | 1066923 | 12.15 |
| ZZZZZZ | 258252 | 3.96 | 602202 | 5.01 | 348655 | 6.53 | 588111 | 7.89 | 424525 | 10.67 | 1063752 | 12.15 |
| OP37682-MB | 300843 | 3.96 | 704924 | 5.01 | 406807 | 6.53 | 681203 | 7.89 | 503355 | 10.67 | 1242458 | 12.15 |
| OP37682-BS | 307280 | 3.96 | 714948 | 5.01 | 415168 | 6.53 | 692613 | 7.90 | 512497 | 10.68 | 1222162 | 12.15 |
| OP37682-MS | 304678 | 3.96 | 719865 | 5.01 | 420074 | 6.53 | 706452 | 7.90 | 525139 | 10.68 | 1284348 | 12.15 |
| OP37682-MSD | 290498 | 3.96 | 676185 | 5.01 | 393513 | 6.53 | 654689 | 7.90 | 478907 | 10.68 | 1145694 | 12.15 |
| MC29400-27 | 281268 | 3.96 | 664178 | 5.01 | 382473 | 6.53 | 649279 | 7.89 | 477387 | 10.67 | 1174262 | 12.15 |
| ZZZZZZ | 283527 | 3.96 | 659026 | 5.01 | 384677 | 6.53 | 643701 | 7.89 | 476195 | 10.67 | 1147012 | 12.15 |
| ZZZZZZ | 288114 | 3.96 | 669603 | 5.01 | 392926 | 6.53 | 667911 | 7.89 | 489913 | 10.67 | 1192540 | 12.15 |
| MC29882-1 | 301066 | 3.96 | 696948 | 5.01 | 409886 | 6.53 | 684078 | 7.90 | 501727 | 10.68 | 1227610 | 12.15 |
| OP37694-MB | 270059 | 3.96 | 639088 | 5.01 | 369932 | 6.53 | 624408 | 7.89 | 461213 | 10.67 | 1145258 | 12.15 |
| OP37694-BS | 254238 | 3.96 | 607523 | 5.01 | 342511 | 6.53 | 562779 | 7.90 | 421966 | 10.68 | 1023268 | 12.15 |
| OP37694-BSD | 271771 | 3.96 | 632173 | 5.01 | 367386 | 6.53 | 597559 | 7.90 | 439640 | 10.68 | 1055335 | 12.15 |
| OP37694-MS | 254460 | 3.96 | 600660 | 5.01 | 346959 | 6.53 | 577449 | 7.90 | 433503 | 10.68 | 1050852 | 12.15 |
| OP37694-MSD | 265536 | 3.96 | 615382 | 5.01 | 355481 | 6.53 | 584611 | 7.90 | 427406 | 10.68 | 1037223 | 12.15 |
| MC29800-4 | 252860 | 3.96 | 586926 | 5.00 | 340433 | 6.53 | 577722 | 7.89 | 429508 | 10.67 | 1082117 | 12.14 |
| ZZZZZZ | 258336 | 3.96 | 599121 | 5.01 | 346548 | 6.53 | 580667 | 7.89 | 411359 | 10.67 | 1018408 | 12.14 |
| ZZZZZZ | 249714 | 3.96 | 587004 | 5.01 | 335983 | 6.53 | 563142 | 7.89 | 413163 | 10.67 | 1013800 | 12.14 |
| ZZZZZZ | 265945 | 3.96 | 627280 | 5.01 | 356718 | 6.53 | 589041 | 7.89 | 427988 | 10.67 | 1050830 | 12.14 |
| ZZZZZZ | 252247 | 3.95 | 580605 | 5.01 | 336068 | 6.53 | 554739 | 7.89 | 406046 | 10.67 | 1004184 | 12.14 |
| OP37713-MB | 234641 | 3.96 | 549832 | 5.00 | 318124 | 6.53 | 536456 | 7.89 | 395995 | 10.67 | 993000 | 12.14 |
| OP37713-BS | 276435 | 3.96 | 634903 | 5.01 | 357737 | 6.53 | 579544 | 7.90 | 413062 | 10.68 | 998519 | 12.15 |
| ZZZZZZ | 258019 | 3.95 | 597353 | 5.01 | 338696 | 6.53 | 556026 | 7.89 | 395918 | 10.67 | 975836 | 12.15 |
| ZZZZZZ | 263063 | 3.96 | 621973 | 5.00 | 362958 | 6.53 | 620835 | 7.89 | 454635 | 10.67 | 1095914 | 12.14 |
| ZZZZZZ | 293982 | 3.96 | 700850 | 5.00 | 402149 | 6.53 | 682235 | 7.89 | 502001 | 10.67 | 1227566 | 12.14 |
| ZZZZZZ | 259709 | 3.96 | 618024 | 5.00 | 353452 | 6.53 | 603412 | 7.89 | 435420 | 10.67 | 1061611 | 12.14 |
| ZZZZZZ | 272872 | 3.96 | 648710 | 5.01 | 374794 | 6.53 | 638282 | 7.89 | 456763 | 10.67 | 1088785 | 12.14 |

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

# Semivolatile Internal Standard Area Summary



**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSI3305-CC3238 | **Injection Date:** | 04/23/14 |
| **Lab File ID:** | I88719.D | **Injection Time:** | 08:07 |
| **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:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSR1411-CC1410 | **Injection Date:** | 04/21/14 |
| **Lab File ID:** | R38278.D | **Injection Time:** | 09:41 |
| **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 | 119472 | 5.41 | 428450 | 6.51 | 266822 | 8.04 | 473515 | 9.35 | 453402 | 11.94 | 394254 | 13.65 |
| Upper Limit [a] | 238944 | 5.91 | 856900 | 7.01 | 533644 | 8.54 | 947030 | 9.85 | 906804 | 12.44 | 788508 | 14.15 |
| Lower Limit [b] | 59736 | 4.91 | 214225 | 6.01 | 133411 | 7.54 | 236758 | 8.85 | 226701 | 11.44 | 197127 | 13.15 |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OP37657-MB | 135006 | 5.41 | 489741 | 6.50 | 305204 | 8.04 | 538899 | 9.34 | 507315 | 11.94 | 444856 | 13.64 |
| OP37657-BS | 140201 | 5.41 | 472614 | 6.51 | 294251 | 8.04 | 514369 | 9.34 | 489336 | 11.94 | 421199 | 13.64 |
| OP37657-MS | 129939 | 5.41 | 469854 | 6.51 | 292550 | 8.04 | 512441 | 9.35 | 493469 | 11.94 | 427015 | 13.64 |
| OP37657-MSD | 130477 | 5.41 | 462134 | 6.51 | 290257 | 8.04 | 506022 | 9.34 | 486758 | 11.94 | 428401 | 13.64 |
| MC29400-19 | 163993 | 5.41 | 581099 | 6.50 | 337715 | 8.04 | 570831 | 9.34 | 548258 | 11.94 | 487442 | 13.64 |
| ZZZZZZ | 140523 | 5.41 | 451574 | 6.50 | 276508 | 8.04 | 492814 | 9.34 | 472387 | 11.94 | 415079 | 13.64 |
| ZZZZZZ | 152519 | 5.41 | 538696 | 6.50 | 346124 | 8.04 | 551955 | 9.34 | 493276 | 11.94 | 446137 | 13.64 |
| ZZZZZZ | 172189 | 5.41 | 615115 | 6.50 | 384310 | 8.04 | 672587 | 9.34 | 537100 | 11.94 | 481945 | 13.64 |
| ZZZZZZ | 167452 | 5.41 | 605031 | 6.50 | 343233 | 8.04 | 578386 | 9.34 | 551960 | 11.93 | 472241 | 13.64 |
| ZZZZZZ | 167281 | 5.41 | 605849 | 6.50 | 380770 | 8.04 | 667012 | 9.34 | 610631 | 11.94 | 483373 | 13.64 |
| ZZZZZZ | 175930 | 5.41 | 631190 | 6.50 | 393521 | 8.04 | 658956 | 9.34 | 560351 | 11.94 | 472653 | 13.64 |
| ZZZZZZ | 176994 | 5.41 | 635207 | 6.50 | 402564 | 8.04 | 700721 | 9.34 | 641216 | 11.94 | 558555 | 13.64 |
| ZZZZZZ | 137173 | 5.41 | 488477 | 6.50 | 303663 | 8.04 | 535300 | 9.34 | 519084 | 11.94 | 466318 | 13.64 |
| ZZZZZZ | 121079 | 5.41 | 439990 | 6.50 | 279915 | 8.04 | 487787 | 9.34 | 465322 | 11.94 | 413815 | 13.64 |

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:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSR1412-CC1410 | **Injection Date:** | 04/21/14 |
| **Lab File ID:** | R38295.D | **Injection Time:** | 16:50 |
| **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 | 108969 | 5.39 | 390162 | 6.49 | 245323 | 8.02 | 417932 | 9.33 | 386213 | 11.92 | 336580 | 13.62 |
| Upper Limit [a] | 217938 | 5.89 | 780324 | 6.99 | 490646 | 8.52 | 835864 | 9.83 | 772426 | 12.42 | 673160 | 14.12 |
| Lower Limit [b] | 54485 | 4.89 | 195081 | 5.99 | 122662 | 7.52 | 208966 | 8.83 | 193107 | 11.42 | 168290 | 13.12 |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ZZZZZZ | 124878 | 5.39 | 454855 | 6.49 | 282716 | 8.02 | 489002 | 9.32 | 432077 | 11.92 | 350188 | 13.62 |
| ZZZZZZ | 124065 | 5.39 | 447101 | 6.49 | 275307 | 8.02 | 478695 | 9.33 | 432923 | 11.92 | 367604 | 13.63 |
| MC29882-2 | 123473 | 5.39 | 445567 | 6.49 | 289388 | 8.02 | 477879 | 9.33 | 426917 | 11.92 | 361512 | 13.62 |
| MC29882-3 | 116216 | 5.39 | 413020 | 6.49 | 261650 | 8.02 | 447856 | 9.32 | 403149 | 11.92 | 349531 | 13.62 |
| MC29882-4 | 118266 | 5.39 | 426754 | 6.49 | 271135 | 8.02 | 465376 | 9.32 | 423384 | 11.92 | 363725 | 13.62 |
| OP37647-MB | 122623 | 5.39 | 443338 | 6.49 | 281856 | 8.02 | 487842 | 9.32 | 439716 | 11.92 | 381642 | 13.62 |
| OP37647-BS | 118453 | 5.39 | 422078 | 6.49 | 264494 | 8.02 | 457601 | 9.33 | 433499 | 11.92 | 368414 | 13.63 |
| OP37647-MS | 119478 | 5.39 | 426660 | 6.49 | 262517 | 8.02 | 449249 | 9.33 | 426668 | 11.92 | 356648 | 13.63 |
| OP37647-MSD | 133540 | 5.39 | 478225 | 6.49 | 291731 | 8.02 | 509000 | 9.33 | 475370 | 11.93 | 407670 | 13.63 |
| MC29400-14 | 121482 | 5.39 | 441238 | 6.49 | 281084 | 8.02 | 490707 | 9.32 | 452062 | 11.92 | 396999 | 13.62 |
| ZZZZZZ | 126570 | 5.39 | 455516 | 6.49 | 288399 | 8.02 | 499141 | 9.32 | 453741 | 11.92 | 393969 | 13.62 |
| ZZZZZZ | 126416 | 5.39 | 458855 | 6.49 | 287506 | 8.02 | 501009 | 9.32 | 458511 | 11.92 | 399962 | 13.62 |
| ZZZZZZ | 118569 | 5.39 | 429228 | 6.49 | 273953 | 8.02 | 463907 | 9.33 | 427885 | 11.92 | 378382 | 13.62 |
| ZZZZZZ | 122886 | 5.39 | 436465 | 6.49 | 279594 | 8.02 | 473367 | 9.33 | 437527 | 11.92 | 379873 | 13.62 |
| ZZZZZZ | 111278 | 5.39 | 403294 | 6.49 | 258703 | 8.02 | 446860 | 9.32 | 412819 | 11.92 | 338100 | 13.62 |
| ZZZZZZ | 127800 | 5.39 | 463391 | 6.49 | 463170 | 8.03 | 494540 | 9.34 | 459054 | 11.92 | 388057 | 13.63 |
| ZZZZZZ | 131829 | 5.39 | 469904 | 6.49 | 289127 | 8.02 | 495694 | 9.32 | 460686 | 11.92 | 407632 | 13.62 |
| ZZZZZZ | 126249 | 5.39 | 443885 | 6.49 | 284180 | 8.02 | 474828 | 9.33 | 437349 | 11.92 | 381788 | 13.62 |
| OP37644-MB | 110748 | 5.39 | 401099 | 6.49 | 249308 | 8.02 | 439802 | 9.32 | 410696 | 11.92 | 368819 | 13.62 |
| OP37644-BS | 105268 | 5.39 | 375575 | 6.49 | 235737 | 8.02 | 408798 | 9.33 | 388638 | 11.92 | 352997 | 13.62 |
| OP37644-MS | 105636 | 5.39 | 382859 | 6.49 | 245663 | 8.02 | 433762 | 9.33 | 418540 | 11.92 | 365411 | 13.63 |
| OP37644-MSD | 111306 | 5.39 | 399156 | 6.49 | 243195 | 8.02 | 417146 | 9.33 | 398248 | 11.92 | 352512 | 13.62 |
| MC29400-13 | 110456 | 5.39 | 400461 | 6.49 | 252634 | 8.02 | 443503 | 9.32 | 419708 | 11.92 | 365003 | 13.62 |
| ZZZZZZ | 107274 | 5.39 | 382153 | 6.49 | 244234 | 8.02 | 434929 | 9.32 | 409182 | 11.92 | 369770 | 13.62 |
| ZZZZZZ | 115152 | 5.39 | 410079 | 6.49 | 258296 | 8.02 | 453076 | 9.32 | 415034 | 11.92 | 377209 | 13.62 |

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.

# Semivolatile Surrogate Recovery Summary



**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 |
|---|---|---|---|---|---|---|---|
| MC29882-1 | F72504.D | 24 | 16 | 76 | 39 | 41 | 83 |
| MC29882-2 | R38298.D | 48 | 30 | 100 | 70 | 73 | 100 |
| MC29882-3 | R38299.D | 46 | 29 | 99 | 72 | 79 | 97 |
| MC29882-4 | R38300.D | 43 | 28 | 98 | 70 | 76 | 96 |
| OP37657-BS | R38280.D | 55 | 33 | 91 | 79 | 83 | 96 |
| OP37657-MB | R38279.D | 42 | 28 | 73 | 72 | 74 | 94 |
| OP37657-MS | R38281.D | 45 | 30 | 91 | 76 | 84 | 93 |
| OP37657-MSD | R38282.D | 47 | 28 | 89 | 74 | 78 | 91 |
| OP37681-BS | F72498.D | 41 | 27 | 81 | 71 | 73 | 89 |
| OP37681-MB | F72497.D | 29 | 19 | 56 | 51 | 54 | 87 |
| OP37681-MS | F72499.D | 35 | 23 | 74 | 58 | 64 | 83 |
| OP37681-MSD | F72500.D | 37 | 25 | 77 | 62 | 66 | 84 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = 2-Fluorophenol | 15-110% |
| S2 = Phenol-d5 | 15-110% |
| S3 = 2,4,6-Tribromophenol | 15-110% |
| S4 = Nitrobenzene-d5 | 30-130% |
| S5 = 2-Fluorobiphenyl | 30-130% |
| S6 = Terphenyl-d14 | 30-130% |

# Semivolatile Surrogate Recovery Summary



**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 |
|---|---|---|---|---|
| MC29882-1 | I88730.D | 39 | 35 | 87 |
| MC29882-2 | I88690.D | 70 | 69 | 97 |
| MC29882-3 | I88691.D | 71 | 72 | 98 |
| MC29882-4 | I88692.D | 69 | 70 | 96 |
| OP37658-BS | I88680.D | 77 | 75 | 96 |
| OP37658-MB | I88679.D | 72 | 66 | 93 |
| OP37658-MS | I88681.D | 76 | 75 | 94 |
| OP37658-MSD | I88682.D | 73 | 72 | 92 |
| OP37682-BS | I88724.D | 68 | 66 | 88 |
| OP37682-MB | I88723.D | 50 | 48 | 89 |
| OP37682-MS | I88725.D | 58 | 55 | 82 |
| OP37682-MSD | I88726.D | 60 | 59 | 84 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = Nitrobenzene-d5 | 30-130% |
| S2 = 2-Fluorobiphenyl | 30-130% |
| S3 = Terphenyl-d14 | 30-130% |

## 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:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37671-MB | BB55406.D | 1 | 04/21/14 | SZ | 04/18/14 | OP37671 | GBB3222 |

**The QC reported here applies to the following samples:** **Method:** SW846 8011

MC29882-1, MC29882-2, MC29882-3, MC29882-4, MC29882-6

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.015 | 0.0054 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.015 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 85% | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 87% | 36-173% |

# Blank Spike Summary



**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37671-BS | BB55407.D | 1 | 04/21/14 | SZ | 04/18/14 | OP37671 | GBB3222 |

**The QC reported here applies to the following samples:** **Method:** SW846 8011

MC29882-1, MC29882-2, MC29882-3, MC29882-4, MC29882-6

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 0.071 | 0.063 | 89 | 60-140 |
| 106-93-4 | 1,2-Dibromoethane | 0.071 | 0.064 | 90 | 60-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 93% | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 96% | 36-173% |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37671-MS | BB55408.D | 1 | 04/21/14 | SZ | 04/18/14 | OP37671 | GBB3222 |
| OP37671-MSD | BB55409.D | 1 | 04/21/14 | SZ | 04/18/14 | OP37671 | GBB3222 |
| MC29400-22 | BB55410.D | 1 | 04/21/14 | SZ | 04/18/14 | OP37671 | GBB3222 |

**The QC reported here applies to the following samples:** **Method:** SW846 8011

MC29882-1, MC29882-2, MC29882-3, MC29882-4, MC29882-6

| CAS No. | Compound | MC29400-22 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 | 0.065 | 92 | 0.071 | 0.082 | 115 | 23 | 64-141/29 |
| 106-93-4 | 1,2-Dibromoethane | ND | | 0.071 | 0.068 | 96 | 0.071 | 0.081 | 114 | 17 | 63-163/27 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29400-22 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 92% | 111% | 105% | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 95% | 115% | 109% | 36-173% |

* = Outside of Control Limits.

# Volatile Surrogate Recovery Summary



**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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] |
|---|---|---|---|
| MC29882-1 | BB55424.D | 82 | 86 |
| MC29882-2 | BB55425.D | 79 | 88 |
| MC29882-3 | BB55426.D | 79 | 89 |
| MC29882-4 | BB55428.D | 90 | 101 |
| MC29882-6 | BB55429.D | 100 | 108 |
| OP37671-BS | BB55407.D | 93 | 96 |
| OP37671-MB | BB55406.D | 85 | 87 |
| OP37671-MS | BB55408.D | 92 | 95 |
| OP37671-MSD | BB55409.D | 111 | 115 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = Bromofluorobenzene (S) | 36-173% |

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

# GC Surrogate Retention Time Summary



**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | GBB3222-ICC3222 | **Injection Date:** | 04/21/14 |
| **Lab File ID:** | BB55402.D | **Injection Time:** | 15:30 |
| **Instrument ID:** | GCBB | **Method:** | SW846 8011 |

| | S1 [a] RT | S1 [b] RT |
|---|---|---|
| Check Std | 4.30 | 4.60 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 [a] RT | S1 [b] RT |
|---|---|---|---|---|---|
| OP37671-MB | BB55406.D | 04/21/14 | 17:09 | 4.30 | 4.60 |
| OP37671-BS | BB55407.D | 04/21/14 | 17:34 | 4.30 | 4.60 |
| OP37671-MS | BB55408.D | 04/21/14 | 17:59 | 4.30 | 4.60 |
| OP37671-MSD | BB55409.D | 04/21/14 | 18:23 | 4.30 | 4.60 |
| MC29400-22 | BB55410.D | 04/21/14 | 18:48 | 4.30 | 4.60 |
| ZZZZZZ | BB55411.D | 04/21/14 | 19:13 | 4.30 | 4.60 |
| ZZZZZZ | BB55412.D | 04/21/14 | 19:38 | 4.30 | 4.60 |
| ZZZZZZ | BB55413.D | 04/21/14 | 20:03 | 4.30 | 4.60 |
| ZZZZZZ | BB55414.D | 04/21/14 | 20:29 | 4.30 | 4.60 |
| ZZZZZZ | BB55415.D | 04/21/14 | 20:56 | 4.30 | 4.60 |

**Surrogate Compounds**

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

# GC Surrogate Retention Time Summary



**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | GBB3222-CC3222 | **Injection Date:** | 04/21/14 |
| **Lab File ID:** | BB55416.D | **Injection Time:** | 21:25 |
| **Instrument ID:** | GCBB | **Method:** | SW846 8011 |

| | S1 [a] RT | S1 [b] RT |
|---|---|---|
| Check Std | 4.30 | 4.60 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 [a] RT | S1 [b] RT |
|---|---|---|---|---|---|
| ZZZZZZ | BB55417.D | 04/21/14 | 21:54 | 4.30 | 4.60 |
| ZZZZZZ | BB55418.D | 04/21/14 | 22:24 | 4.30 | 4.60 |
| ZZZZZZ | BB55419.D | 04/21/14 | 22:53 | 4.30 | 4.60 |
| ZZZZZZ | BB55420.D | 04/21/14 | 23:22 | 4.30 | 4.60 |
| ZZZZZZ | BB55421.D | 04/21/14 | 23:51 | 4.30 | 4.60 |
| ZZZZZZ | BB55422.D | 04/22/14 | 00:21 | 4.30 | 4.60 |
| ZZZZZZ | BB55423.D | 04/22/14 | 00:49 | 4.30 | 4.60 |
| MC29882-1 | BB55424.D | 04/22/14 | 01:18 | 4.30 | 4.60 |
| MC29882-2 | BB55425.D | 04/22/14 | 01:46 | 4.30 | 4.60 |
| MC29882-3 | BB55426.D | 04/22/14 | 02:14 | 4.30 | 4.60 |

**Surrogate Compounds**

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

# GC Surrogate Retention Time Summary



**Job Number:** MC29882
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | GBB3222-CC3222 | **Injection Date:** | 04/22/14 |
| **Lab File ID:** | BB55427.D | **Injection Time:** | 02:42 |
| **Instrument ID:** | GCBB | **Method:** | SW846 8011 |

| | S1 [a] RT | S1 [b] RT |
|---|---|---|
| Check Std | 4.30 | 4.60 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 [a] RT | S1 [b] RT |
|---|---|---|---|---|---|
| MC29882-4 | BB55428.D | 04/22/14 | 03:11 | 4.30 | 4.60 |
| MC29882-6 | BB55429.D | 04/22/14 | 03:39 | 4.30 | 4.60 |
| GBB3222-ECC3222 | BB55430.D | 04/22/14 | 04:07 | 4.30 | 4.60 |

**Surrogate Compounds**

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

SGS ACCUTEST IS PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

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*Automated Report*

## Technical Report for

### Shell Oil

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana,



SGS Accutest Job Number: MC29957

Sampling Date: 04/21/14

Report to:

AECOM, INC.

Melissa.mansker@aecom.com

ATTN: Melissa Mansker

Total number of pages in report: 58

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.

H. (Brad) Madadian
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO (MA00136) MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.



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Unauthorized modification of this report is strictly prohibited.

SGS ACCUTEST

November 01, 2016

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

RE: SGS Accutest Job # MC29957

Dear Elizabeth Kunkel

As you are aware, SGS Accutest Inc. - Marlborough has been conducting an extensive review of data associated with some historical Gas Chromatography-Mass Spectroscopy volatiles analyses. As a result of this review it was determined that some revisions of the original test report for this job were needed. These corrections have been incorporated into the revised report.

Please be assured that corrective actions have been put in place to address this matter and prevent a recurrence.

We apologize for any inconvenience that this issue may have caused. Please don't hesitate to contact us if we can be of further assistance.

Sincerely,

**H. (Brad) Madadian**

Regional Laboratory Director
SGS Accutest Inc. - Marlborough

SGS ACCUTEST IS PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

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# Sample Summary

Shell Oil

Job No: MC29957

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample Number | Collected Date | Time | By | Received | Matrix Code | Type | Client Sample ID |
|---|---|---|---|---|---|---|---|
| MC29957-1 | 04/21/14 | 10:35 | CWKH | 04/22/14 | AQ | Ground Water | P114-ROX-042114 |
| MC29957-2 | 04/21/14 | 00:00 | CWKH | 04/22/14 | AQ | Trip Blank Water | TB-ROX-042114 ST |
| MC29957-3 | 04/21/14 | 00:00 | CWKH | 04/22/14 | AQ | Trip Blank Water | TB-ROX-042114 HCL |

# SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** She O **Job No** MC29957

**Site:** URSMOSTL:Roxana 2Q 4 GW/ 2 562973 03002 900 South Centra **Report Date** / /20 6 5:27: 9 PM

Samp e(s), 2 Tr p B ank(s) and 0 F e d B ank(s) were co ected on 04/2 /20 4 and were rece ved at SGS Accutest New Eng and on 04/22/20 4 proper y preserved, at 5 Deg C and ntact These Samp es rece ved a job number of MC29957 A st ng of the Laboratory Samp e ID, C ent Samp e ID and dates of co ect on are presented n the Resu ts Summary Sect on of th s repo t - Ch orohexane, Benzeneth o , D benz(a,h)acr d ne, Indene and Qu no ne were searched n the brary search and reported on y f detect ons were found

Except as noted be ow, a method spec f ed ca brat ons and qua ty contro performance cr ter a were met for th s job For more nformat on, p ease refer to QC summary pages

## Volatiles by GCMS By Method SW846 8260C

**Matrix:** AQ **Batch ID:** MSV 44

- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC30206- MS, MC30206- MSD were used as the QC samp es nd cated
- A method b anks for th s batch meet method spec f c cr ter a
- Recovery(s) for c s- ,2-D ch oroethene outs de contro m ts Outs de contro m ts due to h gh eve n samp e re at ve to sp ke amount
- Matr x Sp ke/Matr x Sp ke Dup cate Recovery(s) for 2-Butanone (MEK), 2-Ch oroethy v ny ether are outs de contro m ts Probab e cause due to matr x nterference
- 2-Ch oroethy v ny ether: Cont nu ng Ca brat on Ver f cat on outs de of acceptance cr ter a Samp e resu t may be b ased ow

## Extractables by GCMS By Method SW846 8270D

**Matrix:** AQ **Batch ID:** OP37729

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29800- 3MS, MC29800- 3MSD were used as the QC samp es nd cated
- Samp e(s) MC29957- have compound(s) repo ted w th a “B” qua f er, nd cat ng ana yte s found n the assoc ated method b ank
- B ank Sp ke Recove y(s) for 2,4-D n tropheno , 4-N tropheno , Benzo c Ac d, Pentach oropheno are outs de contro m ts
- Matr x Sp ke Recovery(s) for 2,4-D n tropheno , 4-N tropheno , Benzo c Ac d, Pyr d ne are outs de contro m ts Probab e cause due to matr x nterference
- Matr x Sp ke Dup cate Recovery(s) for 2,4-D n tropheno , 4-N tropheno , Benzo c Ac d, Pentach oropheno , Pyr d ne are outs de contro m ts Probab e cause due to matr x nterference

## Extractables by GCMS By Method SW846 8270D BY SIM

**Matrix:** AQ **Batch ID:** OP37730

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC29800- 4MS, MC29800- 4MSD were used as the QC samp es nd cated
- A method b anks for th s batch meet method spec f c cr ter a

## Volatiles by GC By Method SW846 8011

**Matrix:** AQ **Batch ID:** OP37779

- A samp es were extracted w th n the recommended method ho d ng t me
- A samp es were ana yzed w th n the recommended method ho d ng t me
- Samp e(s) MC30000-2MS, MC30000-2MSD were used as the QC samp es nd cated
- A method b anks for th s batch meet method spec f c cr ter a
- Matr x Sp ke/Matr x Sp ke Dup cate Recovery(s) for ,2-D bromo-3-ch oropropane are outs de contro m ts Outs de contro m ts due to poss b e matr x nterference

SGS Accutest New Eng and ce t f es that a ana ys s were performed w th n method spec f cat on It s further recommended that th s report to be used n ts ent rety The Laborato y D rector for SGS Accutest New Eng and or ass gnee as ver f ed by the s gnature on the cover page has author zed the re ease of th s report(MC29957)

# Summary of Hits



**Job Number:** MC29957
**Account:** Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Collected:** 04/21/14



| Lab Sample ID / Analyte | Client Sample ID | Result/ Qual | RL | MDL | Units | Method |
|---|---|---|---|---|---|---|
| MC29957-1 | P114-ROX-042114 | | | | | |
| Methyl Tert Butyl Ether | | 9.3 | 1.0 | 0.51 | ug/l | SW846 8260C |
| Di-n-butyl phthalate | | 2.6 JB | 5.1 | 0.18 | ug/l | SW846 8270D |
| Acenaphthene | | 0.11 | 0.10 | 0.070 | ug/l | SW846 8270D BY SIM |
| Anthracene | | 0.10 | 0.10 | 0.094 | ug/l | SW846 8270D BY SIM |
| MC29957-2 | TB-ROX-042114 ST | | | | | |
| No hits reported in this sample. | | | | | | |
| MC29957-3 | TB-ROX-042114 HCL | | | | | |
| No hits reported in this sample. | | | | | | |

## Sample Results

### Report of Analysis

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | P114-ROX-042114 | | |
| **Lab Sample ID:** | MC29957-1 | **Date Sampled:** | 04/21/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/22/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V30659.D | 1 | 05/05/14 | AMY | n/a | n/a | MSV1144 |
| 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 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [a] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-042114 | | |
| **Lab Sample ID:** | MC29957-1 | **Date Sampled:** | 04/21/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/22/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | 9.3 | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-042114 | | |
| **Lab Sample ID:** | MC29957-1 | **Date Sampled:** | 04/21/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/22/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 111% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 92% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 105% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-042114 | | |
| **Lab Sample ID:** | MC29957-1 | **Date Sampled:** | 04/21/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/22/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R38735.D | 1 | 05/03/14 | WK | 04/23/14 | OP37729 | MSR1426 |
| 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 | 0.32 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 10 | 0.84 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 10 | 0.40 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 10 | 0.57 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 20 | 2.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 2.0 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 10 | 0.23 | ug/l | |
| | 3&4-Methylphenol | ND | 10 | 0.48 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 10 | 2.9 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 20 | 0.55 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 10 | 1.1 | ug/l | |
| 108-95-2 | Phenol | ND | 5.1 | 0.31 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 10 | 0.38 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 10 | 0.18 | ug/l | |
| 62-53-3 | Aniline | ND | 10 | 0.65 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.1 | 0.48 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.1 | 0.54 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 10 | 2.3 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.1 | 0.32 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 10 | 0.57 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.1 | 0.29 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.1 | 0.36 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.1 | 0.34 | 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 | 0.24 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 10 | 0.47 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 10 | 0.31 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.1 | 0.27 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.0 | 0.26 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 2.6 | 5.1 | 0.18 | ug/l | JB |
| 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:** | P114-ROX-042114 | | |
| **Lab Sample ID:** | MC29957-1 | **Date Sampled:** | 04/21/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/22/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.20 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.1 | 0.35 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.0 | 0.34 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.1 | 0.30 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 10 | 1.3 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.1 | 0.31 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.1 | 0.46 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 0.40 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 1.4 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 2.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.1 | 0.40 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.1 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.1 | 0.41 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.1 | 0.20 | ug/l | |
| 110-86-1 | Pyridine | ND | 10 | 0.53 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 31% | | 15-110% |
| 4165-62-2 | Phenol-d5 | 22% | | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 70% | | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 51% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 59% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 75% | | 30-130% |

| 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-042114 | | |
| **Lab Sample ID:** | MC29957-1 | **Date Sampled:** | 04/21/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/22/14 |
| **Method:** | SW846 8270D BY SIM SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | I88904.D | 1 | 05/05/14 | MR | 04/23/14 | OP37730 | MSI3312 |
| 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 | 0.11 | 0.10 | 0.070 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.10 | 0.051 | ug/l | |
| 120-12-7 | Anthracene | 0.10 | 0.10 | 0.094 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.051 | 0.020 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.10 | 0.029 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.051 | 0.032 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.10 | 0.027 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.10 | 0.039 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.10 | 0.024 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.10 | 0.033 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.10 | 0.041 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.10 | 0.10 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.10 | 0.031 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.20 | 0.051 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.20 | 0.076 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 0.051 | 0.013 | ug/l | |
| 129-00-0 | Pyrene | ND | 0.10 | 0.039 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 55% | | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 56% | | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 77% | | 30-130% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates 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-042114 | | |
| **Lab Sample ID:** | MC29957-1 | **Date Sampled:** | 04/21/14 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 04/22/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89471.D | 1 | 04/27/14 | SZ | 04/24/14 | OP37779 | GYZ7549 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.2 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.015 | 0.0052 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.015 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 92% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 101% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-042114 ST | | |
| **Lab Sample ID:** | MC29957-2 | **Date Sampled:** | 04/21/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/22/14 |
| **Method:** | SW846 8011 SW846 8011 | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | YZ89472.D | 1 | 04/27/14 | SZ | 04/24/14 | OP37779 | GYZ7549 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 36.1 ml | 2.0 ml |
| Run #2 | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.015 | 0.0053 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.015 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 109% | | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 121% | | 36-173% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates 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-042114 HCL | | |
| **Lab Sample ID:** | MC29957-3 | **Date Sampled:** | 04/21/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/22/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | V30658.D | 1 | 05/05/14 | AMY | n/a | n/a | MSV1144 |
| 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 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether [a] | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | 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-042114 HCL | | |
| **Lab Sample ID:** | MC29957-3 | **Date Sampled:** | 04/21/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/22/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | 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-042114 HCL | | |
| **Lab Sample ID:** | MC29957-3 | **Date Sampled:** | 04/21/14 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 04/22/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL | | |

**VOA Special List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 113% | | 70-130% |
| 2037-26-5 | Toluene-D8 | 92% | | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 91% | | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Continuing Calibration Verification outside of acceptance criteria. Sample result may be biased low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

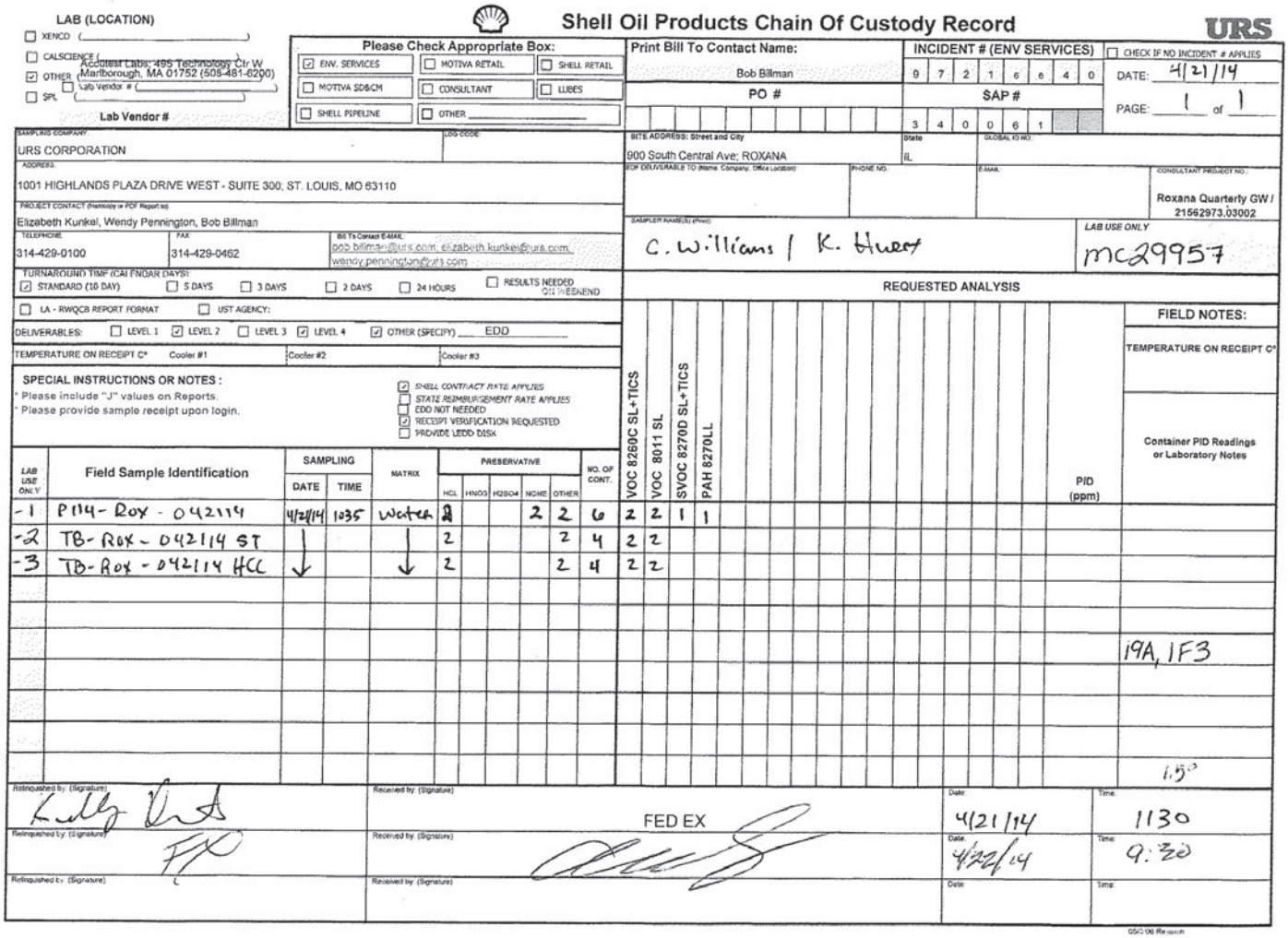
## Misc. Forms



# 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

URS

LAB (LOCATION)
☐ XENCO (_____)
☐ CALSCIENCE (_____)
☑ OTHER (Accutest Labs: 495 Technology Ctr W Marlborough, MA 01752 (508-481-6200))
☐ SPL (_____)
Lab Vendor #: _____

Please Check Appropriate Box:
☑ ENV. SERVICES | ☐ MOTIVA RETAIL | ☐ SHELL RETAIL
☐ MOTIVA SD&CM | ☐ CONSULTANT | ☐ LUBES
☐ SHELL PIPELINE | ☐ OTHER _____

Print Bill To Contact Name: Bob Billman
PO #:
INCIDENT # (ENV SERVICES): 9 7 2 1 6 6 4 0
SAP #: 3 4 0 0 6 1
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 4/21/14
PAGE: 1 of 1

SAMPLING COMPANY: URS CORPORATION
LOG CODE:
ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300; ST. LOUIS, MO 63110
PROJECT CONTACT (Hardcopy or PDF Report to): Elizabeth Kunkel, Wendy Pennington, Bob Billman
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: bob.billman@urs.com; elizabeth.kunkel@urs.com; wendy.pennington@urs.com
SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA
State: IL
GLOBAL ID NO.:
PDF DELIVERABLE TO (Name, Company, Office Location):
PHONE NO.:
E-MAIL:
CONSULTANT PROJECT NO.: Roxana Quarterly GW / 21562973.03002
SAMPLER NAME(S) (Print): C. Williams / K. Hurst
LAB USE ONLY: MC29957

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEKEND
☐ 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 REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD 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 | PID (ppm) | FIELD NOTES: Container PID Readings or Laboratory Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -1 | P114-Rox-042114 | 4/21/14 | 1035 | Water | 2 | | | 2 | 2 | 6 | 2 | 2 | 1 | 1 | | |
| -2 | TB-Rox-042114 ST | ↓ | | ↓ | 2 | | | | 2 | 4 | 2 | 2 | | | | |
| -3 | TB-Rox-042114 HCL | ↓ | | ↓ | 2 | | | | 2 | 4 | 2 | 2 | | | | |
| | | | | | | | | | | | | | | | | 19A, 1F3 |
| | | | | | | | | | | | | | | | | 1.5° |

Relinquished by: (Signature) Kelly Hurst — Received by: (Signature) FED EX — Date: 4/21/14 — Time: 1130
Relinquished by: (Signature) FP — Received by: (Signature) — Date: 4/22/14 — Time: 9:30
Relinquished by: (Signature) — Received by: (Signature) — Date: — Time:

05/08 Revision

MC29957: Chain of Custody
Page 1 of 2

# Accutest Laboratories Sample Receipt Summary

**Accutest Job Number:** MC29957 **Client:** URS **Immediate Client Services Action Required:** No

**Date / Time Received:** 4/22/2014 **Delivery Method:** **Client Service Action Required at Login:** No

**Project:** 900 SOUTH CENTRAL **No. Coolers:** 1 **Airbill #'s:**

| 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. Cooler temp verification: | Infared gun | | |
| 3. Cooler media: | Ice (bag) | | |

| 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 -2 Only two Na2S2O3 preserved vials rec'd
-3 Only two HCL preserved vials rec'd

Accutest Laboratories
V:508.481.6200

495 Technology Center West, Bldg One
F: 508.481.7753

Marlborough, MA
www/accutest.com

5.1

5

MC29957: Chain of Custody
Page 2 of 2

# Internal Sample Tracking Chronicle

Shell Oil

Job No: MC29957

URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample Number | Method | Analyzed | By | Prepped | By | Test Codes |
|---|---|---|---|---|---|---|
| MC29957-1 Collected: 21-APR-14 10:35 By: CWKH Received: 22-APR-14 By: AF | | | | | | |
| P114-ROX-042114 | | | | | | |
| MC29957-1 | SW846 8011 | 27-APR-14 22:20 | SZ | 24-APR-14 | MT | V8011SL |
| MC29957-1 | SW846 8270D | 03-MAY-14 20:07 | WK | 23-APR-14 | BJ | AB8270SL+ |
| MC29957-1 | SW846 8270D BY SIM | 05-MAY-14 10:26 | MR | 23-APR-14 | BJ | B8270SIMSL |
| MC29957-1 | SW846 8260C | 05-MAY-14 12:41 | AMY | | | V8260SL+ |
| MC29957-2 Collected: 21-APR-14 00:00 By: CWKH Received: 22-APR-14 By: AF | | | | | | |
| TB-ROX-042114 ST | | | | | | |
| MC29957-2 | SW846 8011 | 27-APR-14 22:46 | SZ | 24-APR-14 | MT | V8011SL |
| MC29957-3 Collected: 21-APR-14 00:00 By: CWKH Received: 22-APR-14 By: AF | | | | | | |
| TB-ROX-042114 HCL | | | | | | |
| MC29957-3 | SW846 8260C | 05-MAY-14 12:15 | AMY | | | V8260SL+ |

# SGS Accutest Internal Chain of Custody



**Job Number:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL
**Received:** 04/22/14

| Sample.Bottle Number | Transfer FROM | Transfer TO | Date/Time | Reason |
|---|---|---|---|---|
| MC29957-1.1 | Walk In Ref #22 | Alireza Zeighami | 04/23/14 07:41 | Retrieve from Storage |
| MC29957-1.1 | Alireza Zeighami | | 04/24/14 07:17 | Depleted |
| MC29957-1.3 | VOC Ref #1 | Amy Min Yang | 05/03/14 09:52 | Retrieve from Storage |
| MC29957-1.3 | Amy Min Yang | GCMSV | 05/03/14 09:52 | Load on Instrument |
| MC29957-1.3 | GCMSV | Amy Min Yang | 05/05/14 08:50 | Unload from Instrument |
| MC29957-1.3 | Amy Min Yang | VOC Ref #1 | 05/05/14 08:50 | Return to Storage |
| MC29957-1.3 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29957-1.4 | VOC Ref #1 | Amy Min Yang | 05/05/14 10:09 | Retrieve from Storage |
| MC29957-1.4 | Amy Min Yang | GCMSV | 05/05/14 10:09 | Load on Instrument |
| MC29957-1.4 | GCMSV | Amy Min Yang | 05/06/14 12:28 | Unload from Instrument |
| MC29957-1.4 | Amy Min Yang | VOC Ref #1 | 05/06/14 12:29 | Return to Storage |
| MC29957-1.4 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29957-1.6 | VOC Ref #1 | Marc Tahtamoni | 04/24/14 20:03 | Retrieve from Storage |
| MC29957-1.6 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29957-2.2 | VOC Ref #1 | Marc Tahtamoni | 04/24/14 20:03 | Retrieve from Storage |
| MC29957-2.2 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29957-3.1 | VOC Ref #1 | Amy Min Yang | 05/03/14 09:52 | Retrieve from Storage |
| MC29957-3.1 | Amy Min Yang | GCMSV | 05/03/14 09:52 | Load on Instrument |
| MC29957-3.1 | GCMSV | Amy Min Yang | 05/05/14 08:50 | Unload from Instrument |
| MC29957-3.1 | Amy Min Yang | VOC Ref #1 | 05/05/14 08:50 | Return to Storage |
| MC29957-3.1 | Scott Parsick | | 06/25/14 13:20 | Disposed |
| MC29957-3.2 | VOC Ref #1 | Amy Min Yang | 05/05/14 10:09 | Retrieve from Storage |
| MC29957-3.2 | Amy Min Yang | GCMSV | 05/05/14 10:09 | Load on Instrument |
| MC29957-3.2 | GCMSV | Amy Min Yang | 05/06/14 12:28 | Unload from Instrument |
| MC29957-3.2 | Amy Min Yang | VOC Ref #1 | 05/06/14 12:29 | Return to Storage |
| MC29957-3.2 | Scott Parsick | | 06/25/14 13:20 | Disposed |

## 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:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1144-MB | V30654.D | 1 | 05/05/14 | AMY | n/a | n/a | MSV1144 |



**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29957-1, MC29957-3

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 2.5 | ug/l | |
| 107-02-8 | Acrolein | ND | 25 | 6.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | 2.1 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.32 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 0.35 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 0.57 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.61 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.8 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | 2.3 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 1.1 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 5.0 | 0.42 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 0.39 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 5.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.53 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.43 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 0.53 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 3.3 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.41 | ug/l | |
| 74-87-3 | Chloromethane | ND | 2.0 | 1.1 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 0.38 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 0.45 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.38 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.36 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.71 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.36 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.61 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.84 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 2.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 0.89 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 0.70 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 0.47 | ug/l | |

# Method Blank Summary

**Job Number:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1144-MB | V30654.D | 1 | 05/05/14 | AMY | n/a | n/a | MSV1144 |



**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29957-1, MC29957-3

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.50 | 0.42 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.50 | 0.50 | ug/l | |
| 123-91-1 | 1,4-Dioxane | ND | 25 | 11 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 0.49 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.38 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 1.6 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 5.0 | 0.35 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 0.37 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.51 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 0.99 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 5.0 | 0.52 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.28 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.69 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 5.0 | 0.49 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 0.85 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.50 | 0.40 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.59 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 0.68 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.46 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.45 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.47 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.55 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 5.0 | 0.81 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 5.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.38 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 5.0 | 0.71 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.58 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.93 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.36 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.36 | ug/l | |

# Method Blank Summary

**Job Number:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1144-MB | V30654.D | 1 | 05/05/14 | AMY | n/a | n/a | MSV1144 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29957-1, MC29957-3

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | 70-130% |
| 2037-26-5 | Toluene-D8 | 91% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 89% | 70-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

# Blank Spike Summary



**Job Number:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1144-BS | V30651.D | 1 | 05/05/14 | AMY | n/a | n/a | MSV1144 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29957-1, MC29957-3

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 50 | 40.9 | 82 | 70-130 |
| 107-02-8 | Acrolein | 250 | 256 | 102 | 70-130 |
| 107-13-1 | Acrylonitrile | 50 | 49.3 | 99 | 70-130 |
| 71-43-2 | Benzene | 50 | 50.2 | 100 | 70-130 |
| 108-86-1 | Bromobenzene | 50 | 52.0 | 104 | 70-130 |
| 74-97-5 | Bromochloromethane | 50 | 51.0 | 102 | 70-130 |
| 75-27-4 | Bromodichloromethane | 50 | 55.1 | 110 | 70-130 |
| 75-25-2 | Bromoform | 50 | 47.0 | 94 | 70-130 |
| 74-83-9 | Bromomethane | 50 | 51.9 | 104 | 70-130 |
| 78-93-3 | 2-Butanone (MEK) | 50 | 46.7 | 93 | 70-130 |
| 104-51-8 | n-Butylbenzene | 50 | 52.1 | 104 | 70-130 |
| 135-98-8 | sec-Butylbenzene | 50 | 52.5 | 105 | 70-130 |
| 98-06-6 | tert-Butylbenzene | 50 | 51.2 | 102 | 70-130 |
| 75-15-0 | Carbon disulfide | 50 | 46.5 | 93 | 70-130 |
| 56-23-5 | Carbon tetrachloride | 50 | 59.1 | 118 | 70-130 |
| 108-90-7 | Chlorobenzene | 50 | 50.9 | 102 | 70-130 |
| 75-00-3 | Chloroethane | 50 | 60.2 | 120 | 70-130 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 50 | 39.1 | 78 | 70-130 |
| 67-66-3 | Chloroform | 50 | 51.2 | 102 | 70-130 |
| 74-87-3 | Chloromethane | 50 | 51.3 | 103 | 70-130 |
| 95-49-8 | o-Chlorotoluene | 50 | 50.2 | 100 | 70-130 |
| 106-43-4 | p-Chlorotoluene | 50 | 52.7 | 105 | 70-130 |
| 124-48-1 | Dibromochloromethane | 50 | 50.0 | 100 | 70-130 |
| 95-50-1 | 1,2-Dichlorobenzene | 50 | 49.5 | 99 | 70-130 |
| 541-73-1 | 1,3-Dichlorobenzene | 50 | 50.7 | 101 | 70-130 |
| 106-46-7 | 1,4-Dichlorobenzene | 50 | 51.8 | 104 | 70-130 |
| 75-71-8 | Dichlorodifluoromethane | 50 | 46.4 | 93 | 70-130 |
| 75-34-3 | 1,1-Dichloroethane | 50 | 51.0 | 102 | 70-130 |
| 107-06-2 | 1,2-Dichloroethane | 50 | 55.0 | 110 | 70-130 |
| 75-35-4 | 1,1-Dichloroethene | 50 | 52.1 | 104 | 70-130 |
| 156-59-2 | cis-1,2-Dichloroethene | 50 | 49.9 | 100 | 70-130 |
| 156-60-5 | trans-1,2-Dichloroethene | 50 | 50.3 | 101 | 70-130 |
| 78-87-5 | 1,2-Dichloropropane | 50 | 54.9 | 110 | 70-130 |
| 142-28-9 | 1,3-Dichloropropane | 50 | 53.1 | 106 | 70-130 |
| 594-20-7 | 2,2-Dichloropropane | 50 | 54.2 | 108 | 70-130 |
| 563-58-6 | 1,1-Dichloropropene | 50 | 53.0 | 106 | 70-130 |

* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1144-BS | V30651.D | 1 | 05/05/14 | AMY | n/a | n/a | MSV1144 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29957-1, MC29957-3

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | 50 | 49.0 | 98 | 70-130 |
| 10061-02-6 | trans-1,3-Dichloropropene | 50 | 63.3 | 127 | 70-130 |
| 123-91-1 | 1,4-Dioxane | 250 | 224 | 90 | 70-130 |
| 97-63-2 | Ethyl methacrylate | 50 | 50.0 | 100 | 77-137 |
| 100-41-4 | Ethylbenzene | 50 | 53.7 | 107 | 70-130 |
| 87-68-3 | Hexachlorobutadiene | 50 | 45.5 | 91 | 70-130 |
| 591-78-6 | 2-Hexanone | 50 | 48.0 | 96 | 70-130 |
| 98-82-8 | Isopropylbenzene | 50 | 50.7 | 101 | 70-130 |
| 99-87-6 | p-Isopropyltoluene | 50 | 52.4 | 105 | 70-130 |
| 1634-04-4 | Methyl Tert Butyl Ether | 50 | 50.6 | 101 | 70-130 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 50 | 51.0 | 102 | 70-130 |
| 74-95-3 | Methylene bromide | 50 | 54.9 | 110 | 70-130 |
| 75-09-2 | Methylene chloride | 50 | 49.6 | 99 | 70-130 |
| 91-20-3 | Naphthalene | 50 | 53.5 | 107 | 70-130 |
| 103-65-1 | n-Propylbenzene | 50 | 51.1 | 102 | 70-130 |
| 100-42-5 | Styrene | 50 | 56.0 | 112 | 70-130 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 50 | 56.8 | 114 | 70-130 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 50 | 56.0 | 112 | 70-130 |
| 127-18-4 | Tetrachloroethene | 50 | 53.0 | 106 | 70-130 |
| 108-88-3 | Toluene | 50 | 54.7 | 109 | 70-130 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 50 | 58.2 | 116 | 70-130 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 50 | 46.1 | 92 | 70-130 |
| 71-55-6 | 1,1,1-Trichloroethane | 50 | 55.1 | 110 | 70-130 |
| 79-00-5 | 1,1,2-Trichloroethane | 50 | 56.7 | 113 | 70-130 |
| 79-01-6 | Trichloroethene | 50 | 50.8 | 102 | 70-130 |
| 75-69-4 | Trichlorofluoromethane | 50 | 61.4 | 123 | 70-130 |
| 96-18-4 | 1,2,3-Trichloropropane | 50 | 53.8 | 108 | 70-130 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 50 | 51.8 | 104 | 70-130 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 50 | 52.2 | 104 | 70-130 |
| 108-05-4 | Vinyl Acetate | 50 | 48.5 | 97 | 70-130 |
| 75-01-4 | Vinyl chloride | 50 | 57.2 | 114 | 70-130 |
| | m,p-Xylene | 100 | 108 | 108 | 70-130 |
| 95-47-6 | o-Xylene | 50 | 53.0 | 106 | 70-130 |
| 1330-20-7 | Xylene (total) | 150 | 161 | 107 | 70-130 |

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MSV1144-BS | V30651.D | 1 | 05/05/14 | AMY | n/a | n/a | MSV1144 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29957-1, MC29957-3

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 87% | 70-130% |
| 2037-26-5 | Toluene-D8 | 90% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 89% | 70-130% |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC30206-11MS | V30673.D | 5 | 05/05/14 | AMY | n/a | n/a | MSV1144 |
| MC30206-11MSD | V30674.D | 5 | 05/05/14 | AMY | n/a | n/a | MSV1144 |
| MC30206-11 | V30664.D | 1 | 05/05/14 | AMY | n/a | n/a | MSV1144 |
| MC30206-11 | V30676.D | 10 | 05/05/14 | AMY | n/a | n/a | MSV1144 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29957-1, MC29957-3

| CAS No. | Compound | MC30206-11 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 | 296 | 118 | 250 | 257 | 103 | 14 | 70-130/30 |
| 107-02-8 | Acrolein | ND | | 1250 | 1140 | 91 | 1250 | 1130 | 90 | 1 | 70-130/30 |
| 107-13-1 | Acrylonitrile | ND | | 250 | 248 | 99 | 250 | 242 | 97 | 2 | 70-130/30 |
| 71-43-2 | Benzene | 0.63 | | 250 | 253 | 101 | 250 | 244 | 97 | 4 | 70-130/30 |
| 108-86-1 | Bromobenzene | ND | | 250 | 263 | 105 | 250 | 255 | 102 | 3 | 70-130/30 |
| 74-97-5 | Bromochloromethane | ND | | 250 | 252 | 101 | 250 | 244 | 98 | 3 | 70-130/30 |
| 75-27-4 | Bromodichloromethane | ND | | 250 | 274 | 110 | 250 | 265 | 106 | 3 | 70-130/30 |
| 75-25-2 | Bromoform | ND | | 250 | 241 | 96 | 250 | 236 | 94 | 2 | 70-130/30 |
| 74-83-9 | Bromomethane | ND | | 250 | 249 | 100 | 250 | 236 | 94 | 5 | 70-130/30 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 250 | 577 | 231* [a] | 250 | 571 | 228* [a] | 1 | 70-130/30 |
| 104-51-8 | n-Butylbenzene | ND | | 250 | 264 | 106 | 250 | 253 | 101 | 4 | 70-130/30 |
| 135-98-8 | sec-Butylbenzene | ND | | 250 | 265 | 106 | 250 | 250 | 100 | 6 | 70-130/30 |
| 98-06-6 | tert-Butylbenzene | ND | | 250 | 259 | 104 | 250 | 242 | 97 | 7 | 70-130/30 |
| 75-15-0 | Carbon disulfide | ND | | 250 | 235 | 94 | 250 | 225 | 90 | 4 | 70-130/30 |
| 56-23-5 | Carbon tetrachloride | ND | | 250 | 305 | 122 | 250 | 294 | 118 | 4 | 70-130/30 |
| 108-90-7 | Chlorobenzene | ND | | 250 | 257 | 103 | 250 | 248 | 99 | 4 | 70-130/30 |
| 75-00-3 | Chloroethane | ND | | 250 | 294 | 118 | 250 | 287 | 115 | 2 | 70-130/30 |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | | 250 | ND | 0* [a] | 250 | ND | 0* [a] | nc | 70-130/30 |
| 67-66-3 | Chloroform | ND | | 250 | 260 | 104 | 250 | 247 | 99 | 5 | 70-130/30 |
| 74-87-3 | Chloromethane | ND | | 250 | 248 | 99 | 250 | 234 | 94 | 6 | 70-130/30 |
| 95-49-8 | o-Chlorotoluene | ND | | 250 | 251 | 100 | 250 | 239 | 96 | 5 | 70-130/30 |
| 106-43-4 | p-Chlorotoluene | ND | | 250 | 265 | 106 | 250 | 253 | 101 | 5 | 70-130/30 |
| 124-48-1 | Dibromochloromethane | ND | | 250 | 252 | 101 | 250 | 246 | 98 | 2 | 70-130/30 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 250 | 250 | 100 | 250 | 240 | 96 | 4 | 70-130/30 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 250 | 256 | 102 | 250 | 244 | 98 | 5 | 70-130/30 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 250 | 260 | 104 | 250 | 250 | 100 | 4 | 70-130/30 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 250 | 212 | 85 | 250 | 194 | 78 | 9 | 70-130/30 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 250 | 256 | 102 | 250 | 248 | 99 | 3 | 70-130/30 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 250 | 278 | 111 | 250 | 268 | 107 | 4 | 70-130/30 |
| 75-35-4 | 1,1-Dichloroethene | 0.70 | J | 250 | 263 | 105 | 250 | 255 | 102 | 3 | 70-130/30 |
| 156-59-2 | cis-1,2-Dichloroethene | 819 [c] | | 250 | 1660 | 336* [b] | 250 | 1610 | 316* [b] | 3 | 70-130/30 |
| 156-60-5 | trans-1,2-Dichloroethene | 8.5 | | 250 | 259 | 100 | 250 | 248 | 96 | 4 | 70-130/30 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 250 | 274 | 110 | 250 | 268 | 107 | 2 | 70-130/30 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 250 | 271 | 108 | 250 | 262 | 105 | 3 | 70-130/30 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 250 | 269 | 108 | 250 | 257 | 103 | 5 | 70-130/30 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 250 | 269 | 108 | 250 | 257 | 103 | 5 | 70-130/30 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC30206-11MS | V30673.D | 5 | 05/05/14 | AMY | n/a | n/a | MSV1144 |
| MC30206-11MSD | V30674.D | 5 | 05/05/14 | AMY | n/a | n/a | MSV1144 |
| MC30206-11 | V30664.D | 1 | 05/05/14 | AMY | n/a | n/a | MSV1144 |
| MC30206-11 | V30676.D | 10 | 05/05/14 | AMY | n/a | n/a | MSV1144 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29957-1, MC29957-3

| CAS No. | Compound | MC30206-11 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 | 231 | 92 | 250 | 227 | 91 | 2 | 70-130/30 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 250 | 317 | 127 | 250 | 317 | 127 | 0 | 70-130/30 |
| 123-91-1 | 1,4-Dioxane | ND | | 1250 | 1180 | 94 | 1250 | 1030 | 82 | 14 | 70-130/30 |
| 97-63-2 | Ethyl methacrylate | ND | | 250 | 286 | 114 | 250 | 293 | 117 | 2 | 72-139/30 |
| 100-41-4 | Ethylbenzene | ND | | 250 | 270 | 108 | 250 | 259 | 104 | 4 | 70-130/30 |
| 87-68-3 | Hexachlorobutadiene | ND | | 250 | 242 | 97 | 250 | 236 | 94 | 3 | 70-130/30 |
| 591-78-6 | 2-Hexanone | ND | | 250 | 262 | 105 | 250 | 254 | 102 | 3 | 70-130/30 |
| 98-82-8 | Isopropylbenzene | ND | | 250 | 257 | 103 | 250 | 242 | 97 | 6 | 70-130/30 |
| 99-87-6 | p-Isopropyltoluene | ND | | 250 | 267 | 107 | 250 | 250 | 100 | 7 | 70-130/30 |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | | 250 | 264 | 106 | 250 | 258 | 103 | 2 | 70-130/30 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 250 | 301 | 120 | 250 | 298 | 119 | 1 | 70-130/30 |
| 74-95-3 | Methylene bromide | ND | | 250 | 275 | 110 | 250 | 268 | 107 | 3 | 70-130/30 |
| 75-09-2 | Methylene chloride | ND | | 250 | 247 | 99 | 250 | 237 | 95 | 4 | 70-130/30 |
| 91-20-3 | Naphthalene | ND | | 250 | 280 | 112 | 250 | 285 | 114 | 2 | 70-130/30 |
| 103-65-1 | n-Propylbenzene | ND | | 250 | 253 | 101 | 250 | 243 | 97 | 4 | 70-130/30 |
| 100-42-5 | Styrene | ND | | 250 | 278 | 111 | 250 | 269 | 108 | 3 | 70-130/30 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 250 | 289 | 116 | 250 | 274 | 110 | 5 | 70-130/30 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 250 | 284 | 114 | 250 | 276 | 110 | 3 | 70-130/30 |
| 127-18-4 | Tetrachloroethene | ND | | 250 | 263 | 105 | 250 | 251 | 100 | 5 | 70-130/30 |
| 108-88-3 | Toluene | ND | | 250 | 272 | 109 | 250 | 266 | 106 | 2 | 70-130/30 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 250 | 285 | 114 | 250 | 285 | 114 | 0 | 70-130/30 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 250 | 236 | 94 | 250 | 230 | 92 | 3 | 70-130/30 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 250 | 283 | 113 | 250 | 274 | 110 | 3 | 70-130/30 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 250 | 285 | 114 | 250 | 286 | 114 | 0 | 70-130/30 |
| 79-01-6 | Trichloroethene | 3.4 | | 250 | 261 | 103 | 250 | 253 | 100 | 3 | 70-130/30 |
| 75-69-4 | Trichlorofluoromethane | ND | | 250 | 284 | 114 | 250 | 263 | 105 | 8 | 70-130/30 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 250 | 255 | 102 | 250 | 251 | 100 | 2 | 70-130/30 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 250 | 261 | 104 | 250 | 248 | 99 | 5 | 70-130/30 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 250 | 261 | 104 | 250 | 248 | 99 | 5 | 70-130/30 |
| 108-05-4 | Vinyl Acetate | ND | | 250 | 254 | 102 | 250 | 248 | 99 | 2 | 70-130/30 |
| 75-01-4 | Vinyl chloride | 8.4 | | 250 | 280 | 109 | 250 | 264 | 102 | 6 | 70-130/30 |
| | m,p-Xylene | ND | | 500 | 538 | 108 | 500 | 515 | 103 | 4 | 70-130/30 |
| 95-47-6 | o-Xylene | ND | | 250 | 264 | 106 | 250 | 253 | 101 | 4 | 70-130/30 |
| 1330-20-7 | Xylene (total) | ND | | 750 | 801 | 107 | 750 | 768 | 102 | 4 | 70-130/30 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| MC30206-11MS | V30673.D | 5 | 05/05/14 | AMY | n/a | n/a | MSV1144 |
| MC30206-11MSD | V30674.D | 5 | 05/05/14 | AMY | n/a | n/a | MSV1144 |
| MC30206-11 | V30664.D | 1 | 05/05/14 | AMY | n/a | n/a | MSV1144 |
| MC30206-11 | V30676.D | 10 | 05/05/14 | AMY | n/a | n/a | MSV1144 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC29957-1, MC29957-3

| CAS No. | Surrogate Recoveries | MS | MSD | MC30206-11 | MC30206-11 | Limits |
|---|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 86% | 85% | 99% | 93% | 70-130% |
| 2037-26-5 | Toluene-D8 | 89% | 89% | 93% | 90% | 70-130% |
| 460-00-4 | 4-Bromofluorobenzene | 91% | 89% | 92% | 90% | 70-130% |

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(b) Outside control limits due to high level in sample relative to spike amount.
(c) Result is from Run #2.

* = Outside of Control Limits.

# Volatile Internal Standard Area Summary



Job Number: MC29957
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| Check Std: | MSV1144-CC1058 | Injection Date: | 05/05/14 |
| Lab File ID: | V30651.D | Injection Time: | 09:13 |
| 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 | 266459 | 6.57 | 363828 | 7.75 | 179036 | 11.09 | 199425 | 13.30 | 44497 | 3.51 |
| Upper Limit [a] | 532918 | 7.07 | 727656 | 8.25 | 358072 | 11.59 | 398850 | 13.80 | 88994 | 4.01 |
| Lower Limit [b] | 133230 | 6.07 | 181914 | 7.25 | 89518 | 10.59 | 99713 | 12.80 | 22249 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| MSV1144-BS | 266459 | 6.57 | 363828 | 7.75 | 179036 | 11.09 | 199425 | 13.30 | 44497 | 3.51 |
| MSV1144-MB | 170863 | 6.57 | 252948 | 7.75 | 137013 | 11.09 | 130206 | 13.30 | 32697 | 3.51 |
| ZZZZZZ | 168560 | 6.57 | 251714 | 7.75 | 141167 | 11.09 | 131104 | 13.30 | 30270 | 3.51 |
| ZZZZZZ | 166467 | 6.57 | 249133 | 7.75 | 134422 | 11.09 | 127468 | 13.30 | 30417 | 3.51 |
| ZZZZZZ | 166014 | 6.57 | 256144 | 7.75 | 142502 | 11.09 | 145753 | 13.30 | 31234 | 3.51 |
| MC29957-3 | 153866 | 6.57 | 232976 | 7.75 | 128135 | 11.09 | 119332 | 13.30 | 29876 | 3.51 |
| MC29957-1 | 151941 | 6.57 | 228921 | 7.75 | 127798 | 11.09 | 136683 | 13.30 | 30111 | 3.51 |
| ZZZZZZ | 152014 | 6.57 | 234563 | 7.75 | 126643 | 11.09 | 123167 | 13.30 | 27778 | 3.51 |
| ZZZZZZ | 154745 | 6.57 | 233567 | 7.75 | 127152 | 11.09 | 123819 | 13.30 | 27403 | 3.51 |
| ZZZZZZ | 137918 | 6.57 | 207545 | 7.75 | 121866 | 11.09 | 112961 | 13.30 | 23800 | 3.51 |
| MC30206-6 | 165313 | 6.57 | 229730 | 7.75 | 124529 | 11.09 | 114926 | 13.30 | 25341 | 3.50 |
| MC30206-11 | 183109 | 6.57 | 241148 | 7.75 | 130687 | 11.09 | 124576 | 13.30 | 30831 | 3.51 |
| ZZZZZZ | 153969 | 6.57 | 230010 | 7.75 | 129471 | 11.09 | 122065 | 13.30 | 29422 | 3.51 |
| ZZZZZZ | 145344 | 6.57 | 222134 | 7.75 | 127830 | 11.09 | 120005 | 13.30 | 29016 | 3.51 |
| ZZZZZZ | 154435 | 6.57 | 229302 | 7.75 | 131778 | 11.09 | 123593 | 13.30 | 28730 | 3.51 |
| ZZZZZZ | 207339 | 6.56 | 255868 | 7.75 | 152875 | 11.09 | 160840 | 13.30 | 41345 | 3.51 |
| ZZZZZZ | 195114 | 6.57 | 283116 | 7.75 | 155780 | 11.09 | 149957 | 13.30 | 40199 | 3.51 |
| ZZZZZZ | 197933 | 6.57 | 276815 | 7.75 | 150407 | 11.09 | 138080 | 13.30 | 38225 | 3.51 |
| MC30206-6MS | 235666 | 6.57 | 319997 | 7.75 | 162774 | 11.09 | 185708 | 13.30 | 38710 | 3.51 |
| MC30206-6MSD | 240164 | 6.56 | 325735 | 7.75 | 163097 | 11.09 | 180464 | 13.30 | 40707 | 3.51 |
| MC30206-11MS | 258998 | 6.56 | 352425 | 7.75 | 174770 | 11.09 | 193396 | 13.30 | 47818 | 3.51 |
| MC30206-11MSD | 268645 | 6.57 | 364498 | 7.75 | 186044 | 11.08 | 206352 | 13.30 | 47851 | 3.51 |
| MC30206-6 | 211897 | 6.56 | 297391 | 7.75 | 156500 | 11.08 | 154676 | 13.30 | 41363 | 3.50 |
| MC30206-11 | 209699 | 6.57 | 287805 | 7.75 | 153190 | 11.08 | 145223 | 13.30 | 39153 | 3.51 |
| MSV1144-ECC1058 | 236468 | 6.56 | 316543 | 7.74 | 160437 | 11.08 | 180216 | 13.30 | 37973 | 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:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 |
|---|---|---|---|---|
| MC29957-1 | V30659.D | 111 | 92 | 105 |
| MC29957-3 | V30658.D | 113 | 92 | 91 |
| MC30206-11MS | V30673.D | 86 | 89 | 91 |
| MC30206-11MSD | V30674.D | 85 | 89 | 89 |
| MSV1144-BS | V30651.D | 87 | 90 | 89 |
| MSV1144-MB | V30654.D | 104 | 91 | 89 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = Dibromofluoromethane | 70-130% |
| S2 = Toluene-D8 | 70-130% |
| S3 = 4-Bromofluorobenzene | 70-130% |

## GC/MS Semi-volatiles

7

### 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:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37729-MB | R38729.D | 1 | 05/03/14 | WK | 04/23/14 | OP37729 | MSR1426 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29957-1

| 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 | 0.31 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 10 | 0.83 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 10 | 0.40 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 10 | 0.56 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 20 | 2.5 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 10 | 0.23 | ug/l | |
| | 3&4-Methylphenol | ND | 10 | 0.47 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 10 | 2.9 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 20 | 0.53 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 10 | 1.1 | ug/l | |
| 108-95-2 | Phenol | ND | 5.0 | 0.30 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 10 | 0.37 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 10 | 0.18 | ug/l | |
| 62-53-3 | Aniline | ND | 10 | 0.64 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.0 | 0.47 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.0 | 0.53 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 10 | 2.3 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.0 | 0.31 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 10 | 0.56 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.0 | 0.29 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.0 | 0.35 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.0 | 0.33 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.0 | 0.25 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 5.0 | 0.24 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 10 | 0.46 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 10 | 0.30 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.0 | 0.27 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.0 | 0.26 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 0.44 | 5.0 | 0.17 | ug/l | J |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.0 | 0.28 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.0 | 0.20 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.0 | 0.34 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.0 | 0.33 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.0 | 0.29 | ug/l | |

# Method Blank Summary

**Job Number:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37729-MB | R38729.D | 1 | 05/03/14 | WK | 04/23/14 | OP37729 | MSR1426 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29957-1

| 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 | 0.30 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.0 | 0.45 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 0.40 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 1.4 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 2.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.0 | 0.39 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 5.0 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.0 | 0.40 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.0 | 0.19 | ug/l | |
| 110-86-1 | Pyridine | ND | 10 | 0.52 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 37% | 15-110% |
| 4165-62-2 | Phenol-d5 | 24% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 56% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 60% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 65% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 74% | 30-130% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile | | 0 | ug/l | |

# Method Blank Summary



**Job Number:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37730-MB | I88899.D | 1 | 05/05/14 | MR | 04/23/14 | OP37730 | MSI3312 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D BY SIM

MC29957-1



| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | ND | 0.10 | 0.069 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 0.10 | 0.050 | ug/l | |
| 120-12-7 | Anthracene | ND | 0.10 | 0.092 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 0.050 | 0.020 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 0.10 | 0.029 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.050 | 0.032 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 0.10 | 0.027 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.10 | 0.039 | ug/l | |
| 218-01-9 | Chrysene | ND | 0.10 | 0.024 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 0.10 | 0.032 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 0.10 | 0.041 | ug/l | |
| 86-73-7 | Fluorene | ND | 0.10 | 0.099 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.10 | 0.031 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 0.20 | 0.050 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 0.20 | 0.074 | ug/l | |
| 85-01-8 | Phenanthrene | 0.026 | 0.050 | 0.013 | ug/l | J |
| 129-00-0 | Pyrene | ND | 0.10 | 0.038 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 62% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 59% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 73% | 30-130% |

# Blank Spike Summary



**Job Number:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37729-BS | R38730.D | 1 | 05/03/14 | WK | 04/23/14 | OP37729 | MSR1426 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29957-1

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | 50 | 11.7 | 23* [a] | 30-130 |
| 95-57-8 | 2-Chlorophenol | 50 | 34.7 | 69 | 30-130 |
| 59-50-7 | 4-Chloro-3-methyl phenol | 50 | 32.8 | 66 | 30-130 |
| 120-83-2 | 2,4-Dichlorophenol | 50 | 30.8 | 62 | 30-130 |
| 105-67-9 | 2,4-Dimethylphenol | 50 | 29.1 | 58 | 30-130 |
| 51-28-5 | 2,4-Dinitrophenol | 50 | 8.8 | 18* [a] | 30-130 |
| 534-52-1 | 4,6-Dinitro-o-cresol | 50 | 21.3 | 43 | 30-130 |
| 95-48-7 | 2-Methylphenol | 50 | 41.9 | 84 | 30-130 |
| | 3&4-Methylphenol | 100 | 57.1 | 57 | 30-130 |
| 88-75-5 | 2-Nitrophenol | 50 | 31.7 | 63 | 30-130 |
| 100-02-7 | 4-Nitrophenol | 50 | 8.1 | 16* [a] | 30-130 |
| 87-86-5 | Pentachlorophenol | 50 | 13.6 | 27* [a] | 30-130 |
| 108-95-2 | Phenol | 50 | 16.2 | 32 | 30-130 |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | 31.9 | 64 | 30-130 |
| 88-06-2 | 2,4,6-Trichlorophenol | 50 | 31.7 | 63 | 30-130 |
| 62-53-3 | Aniline | 50 | 28.2 | 56 | 40-140 |
| 101-55-3 | 4-Bromophenyl phenyl ether | 50 | 39.0 | 78 | 40-140 |
| 85-68-7 | Butyl benzyl phthalate | 50 | 45.9 | 92 | 40-140 |
| 100-51-6 | Benzyl Alcohol | 50 | 24.2 | 48 | 40-140 |
| 91-58-7 | 2-Chloronaphthalene | 50 | 38.5 | 77 | 40-140 |
| 106-47-8 | 4-Chloroaniline | 50 | 34.4 | 69 | 40-140 |
| 111-91-1 | bis(2-Chloroethoxy)methane | 50 | 36.6 | 73 | 40-140 |
| 111-44-4 | bis(2-Chloroethyl)ether | 50 | 37.5 | 75 | 40-140 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 50 | 48.3 | 97 | 40-140 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 50 | 34.9 | 70 | 40-140 |
| 122-66-7 | 1,2-Diphenylhydrazine | 50 | 42.3 | 85 | 40-140 |
| 121-14-2 | 2,4-Dinitrotoluene | 50 | 39.5 | 79 | 40-140 |
| 606-20-2 | 2,6-Dinitrotoluene | 50 | 37.7 | 75 | 40-140 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 50 | 36.9 | 74 | 40-140 |
| 132-64-9 | Dibenzofuran | 50 | 36.1 | 72 | 40-140 |
| 84-74-2 | Di-n-butyl phthalate | 50 | 43.3 | 87 | 40-140 |
| 117-84-0 | Di-n-octyl phthalate | 50 | 48.0 | 96 | 40-140 |
| 84-66-2 | Diethyl phthalate | 50 | 42.1 | 84 | 40-140 |
| 131-11-3 | Dimethyl phthalate | 50 | 39.4 | 79 | 40-140 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 50 | 47.6 | 95 | 40-140 |
| 118-74-1 | Hexachlorobenzene | 50 | 35.7 | 71 | 40-140 |

* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37729-BS | R38730.D | 1 | 05/03/14 | WK | 04/23/14 | OP37729 | MSR1426 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29957-1

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 77-47-4 | Hexachlorocyclopentadiene | 50 | 20.9 | 42 | 40-140 |
| 67-72-1 | Hexachloroethane | 50 | 35.7 | 71 | 40-140 |
| 78-59-1 | Isophorone | 50 | 34.0 | 68 | 40-140 |
| 88-74-4 | 2-Nitroaniline | 50 | 41.9 | 84 | 40-140 |
| 99-09-2 | 3-Nitroaniline | 50 | 40.7 | 81 | 40-140 |
| 100-01-6 | 4-Nitroaniline | 50 | 35.2 | 70 | 40-140 |
| 98-95-3 | Nitrobenzene | 50 | 32.9 | 66 | 40-140 |
| 62-75-9 | n-Nitrosodimethylamine | 50 | 21.6 | 43 | 40-140 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 50 | 40.9 | 82 | 40-140 |
| 86-30-6 | N-Nitrosodiphenylamine | 50 | 40.0 | 80 | 40-140 |
| 110-86-1 | Pyridine | 50 | 20.1 | 40 | 40-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 39% | 15-110% |
| 4165-62-2 | Phenol-d5 | 28% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 62% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 63% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 67% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 72% | 30-130% |

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37730-BS | I88900.D | 1 | 05/05/14 | MR | 04/23/14 | OP37730 | MSI3312 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D BY SIM

MC29957-1

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 50 | 34.5 | 69 | 40-140 |
| 208-96-8 | Acenaphthylene | 50 | 32.5 | 65 | 40-140 |
| 120-12-7 | Anthracene | 50 | 34.0 | 68 | 40-140 |
| 56-55-3 | Benzo(a)anthracene | 50 | 37.2 | 74 | 40-140 |
| 50-32-8 | Benzo(a)pyrene | 50 | 35.4 | 71 | 40-140 |
| 205-99-2 | Benzo(b)fluoranthene | 50 | 38.1 | 76 | 40-140 |
| 191-24-2 | Benzo(g,h,i)perylene | 50 | 40.2 | 80 | 40-140 |
| 207-08-9 | Benzo(k)fluoranthene | 50 | 37.8 | 76 | 40-140 |
| 218-01-9 | Chrysene | 50 | 35.3 | 71 | 40-140 |
| 53-70-3 | Dibenzo(a,h)anthracene | 50 | 42.2 | 84 | 40-140 |
| 206-44-0 | Fluoranthene | 50 | 37.7 | 75 | 40-140 |
| 86-73-7 | Fluorene | 50 | 35.6 | 71 | 40-140 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 50 | 41.3 | 83 | 40-140 |
| 90-12-0 | 1-Methylnaphthalene | 50 | 33.6 | 67 | 40-140 |
| 91-57-6 | 2-Methylnaphthalene | 50 | 32.8 | 66 | 40-140 |
| 85-01-8 | Phenanthrene | 50 | 34.7 | 69 | 40-140 |
| 129-00-0 | Pyrene | 50 | 37.2 | 74 | 40-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 67% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 63% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 73% | 30-130% |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: MC29957
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37729-MS | R38731.D | 1 | 05/03/14 | WK | 04/23/14 | OP37729 | MSR1426 |
| OP37729-MSD | R38732.D | 1 | 05/03/14 | WK | 04/23/14 | OP37729 | MSR1426 |
| MC29800-13 | R38733.D | 1 | 05/03/14 | WK | 04/23/14 | OP37729 | MSR1426 |

The QC reported here applies to the following samples: Method: SW846 8270D

MC29957-1

| CAS No. | Compound | MC29800-13 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 | 12.0 | 24* [a] | 50 | 12.3 | 25* [a] | 2 | 30-130/20 |
| 95-57-8 | 2-Chlorophenol | ND | | 50 | 32.5 | 65 | 50 | 34.8 | 70 | 7 | 30-130/20 |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | | 50 | 33.1 | 66 | 50 | 34.7 | 69 | 5 | 30-130/20 |
| 120-83-2 | 2,4-Dichlorophenol | ND | | 50 | 30.3 | 61 | 50 | 32.1 | 64 | 6 | 30-130/20 |
| 105-67-9 | 2,4-Dimethylphenol | ND | | 50 | 25.9 | 52 | 50 | 28.7 | 57 | 10 | 30-130/20 |
| 51-28-5 | 2,4-Dinitrophenol | ND | | 50 | 10.6 | 21* [a] | 50 | 10.7 | 21* [a] | 1 | 30-130/20 |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | | 50 | 25.9 | 52 | 50 | 25.6 | 51 | 1 | 30-130/20 |
| 95-48-7 | 2-Methylphenol | ND | | 50 | 36.1 | 72 | 50 | 38.9 | 78 | 7 | 30-130/20 |
| | 3&4-Methylphenol | ND | | 100 | 53.9 | 54 | 100 | 57.9 | 58 | 7 | 30-130/20 |
| 88-75-5 | 2-Nitrophenol | ND | | 50 | 30.8 | 62 | 50 | 32.9 | 66 | 7 | 30-130/20 |
| 100-02-7 | 4-Nitrophenol | ND | | 50 | 9.4 | 19* [a] | 50 | 9.6 | 19* [a] | 2 | 30-130/20 |
| 87-86-5 | Pentachlorophenol | ND | | 50 | 15.9 | 32 | 50 | 14.6 | 29* [a] | 9 | 30-130/20 |
| 108-95-2 | Phenol | ND | | 50 | 15.2 | 30 | 50 | 16.3 | 33 | 7 | 30-130/20 |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | | 50 | 33.2 | 66 | 50 | 33.7 | 67 | 1 | 30-130/20 |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | | 50 | 32.5 | 65 | 50 | 34.8 | 70 | 7 | 30-130/20 |
| 62-53-3 | Aniline | ND | | 50 | 26.2 | 52 | 50 | 27.3 | 55 | 4 | 40-140/20 |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | | 50 | 40.7 | 81 | 50 | 42.2 | 84 | 4 | 40-140/20 |
| 85-68-7 | Butyl benzyl phthalate | ND | | 50 | 50.7 | 101 | 50 | 49.9 | 100 | 2 | 40-140/20 |
| 100-51-6 | Benzyl Alcohol | ND | | 50 | 23.0 | 46 | 50 | 25.5 | 51 | 10 | 40-140/20 |
| 91-58-7 | 2-Chloronaphthalene | ND | | 50 | 37.4 | 75 | 50 | 40.3 | 81 | 7 | 40-140/20 |
| 106-47-8 | 4-Chloroaniline | ND | | 50 | 34.4 | 69 | 50 | 35.6 | 71 | 3 | 40-140/20 |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | | 50 | 33.4 | 67 | 50 | 36.6 | 73 | 9 | 40-140/20 |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | | 50 | 34.3 | 69 | 50 | 37.1 | 74 | 8 | 40-140/20 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | | 50 | 43.7 | 87 | 50 | 47.7 | 95 | 9 | 40-140/20 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | | 50 | 35.2 | 70 | 50 | 36.9 | 74 | 5 | 40-140/20 |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | | 50 | 44.0 | 88 | 50 | 45.6 | 91 | 4 | 40-140/20 |
| 121-14-2 | 2,4-Dinitrotoluene | ND | | 50 | 41.1 | 82 | 50 | 42.7 | 85 | 4 | 40-140/20 |
| 606-20-2 | 2,6-Dinitrotoluene | ND | | 50 | 39.7 | 79 | 50 | 40.9 | 82 | 3 | 40-140/20 |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | | 50 | 43.7 | 87 | 50 | 41.3 | 83 | 6 | 40-140/20 |
| 132-64-9 | Dibenzofuran | ND | | 50 | 35.9 | 72 | 50 | 38.3 | 77 | 6 | 40-140/20 |
| 84-74-2 | Di-n-butyl phthalate | 0.36 | JB | 50 | 49.2 | 98 | 50 | 47.3 | 94 | 4 | 40-140/20 |
| 117-84-0 | Di-n-octyl phthalate | ND | | 50 | 53.0 | 106 | 50 | 52.2 | 104 | 2 | 40-140/20 |
| 84-66-2 | Diethyl phthalate | ND | | 50 | 44.2 | 88 | 50 | 45.4 | 91 | 3 | 40-140/20 |
| 131-11-3 | Dimethyl phthalate | ND | | 50 | 40.3 | 81 | 50 | 42.1 | 84 | 4 | 40-140/20 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | | 50 | 52.8 | 106 | 50 | 52.0 | 104 | 2 | 40-140/20 |
| 118-74-1 | Hexachlorobenzene | ND | | 50 | 37.9 | 76 | 50 | 38.6 | 77 | 2 | 40-140/20 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37729-MS | R38731.D | 1 | 05/03/14 | WK | 04/23/14 | OP37729 | MSR1426 |
| OP37729-MSD | R38732.D | 1 | 05/03/14 | WK | 04/23/14 | OP37729 | MSR1426 |
| MC29800-13 | R38733.D | 1 | 05/03/14 | WK | 04/23/14 | OP37729 | MSR1426 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

MC29957-1



| CAS No. | Compound | MC29800-13 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 | 19.8 | 40 | 50 | 21.7 | 43 | 9 | 40-140/20 |
| 67-72-1 | Hexachloroethane | ND | | 50 | 32.9 | 66 | 50 | 34.8 | 70 | 6 | 40-140/20 |
| 78-59-1 | Isophorone | ND | | 50 | 32.4 | 65 | 50 | 35.1 | 70 | 8 | 40-140/20 |
| 88-74-4 | 2-Nitroaniline | ND | | 50 | 42.7 | 85 | 50 | 45.2 | 90 | 6 | 40-140/20 |
| 99-09-2 | 3-Nitroaniline | ND | | 50 | 44.0 | 88 | 50 | 39.9 | 80 | 10 | 40-140/20 |
| 100-01-6 | 4-Nitroaniline | ND | | 50 | 38.7 | 77 | 50 | 38.4 | 77 | 1 | 40-140/20 |
| 98-95-3 | Nitrobenzene | ND | | 50 | 30.9 | 62 | 50 | 33.4 | 67 | 8 | 40-140/20 |
| 62-75-9 | n-Nitrosodimethylamine | ND | | 50 | 20.2 | 40 | 50 | 21.4 | 43 | 6 | 40-140/20 |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | | 50 | 38.0 | 76 | 50 | 40.9 | 82 | 7 | 40-140/20 |
| 86-30-6 | N-Nitrosodiphenylamine | ND | | 50 | 41.9 | 84 | 50 | 42.5 | 85 | 1 | 40-140/20 |
| 110-86-1 | Pyridine | ND | | 50 | 18.5 | 37* [a] | 50 | 19.0 | 38* [a] | 3 | 40-140/20 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29800-13 | Limits |
|---|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 38% | 38% | 38% | 15-110% |
| 4165-62-2 | Phenol-d5 | 27% | 28% | 26% | 15-110% |
| 118-79-6 | 2,4,6-Tribromophenol | 70% | 70% | 56% | 15-110% |
| 4165-60-0 | Nitrobenzene-d5 | 63% | 66% | 62% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 69% | 73% | 65% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 85% | 83% | 78% | 30-130% |

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37730-MS | I88901.D | 1 | 05/05/14 | MR | 04/23/14 | OP37730 | MSI3312 |
| OP37730-MSD | I88902.D | 1 | 05/05/14 | MR | 04/23/14 | OP37730 | MSI3312 |
| MC29800-14 | I88903.D | 1 | 05/05/14 | MR | 04/23/14 | OP37730 | MSI3312 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D BY SIM

MC29957-1

| CAS No. | Compound | MC29800-14 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 | 34.7 | 69 | 50 | 36.6 | 73 | 5 | 40-140/20 |
| 208-96-8 | Acenaphthylene | ND | | 50 | 32.6 | 65 | 50 | 34.4 | 69 | 5 | 40-140/20 |
| 120-12-7 | Anthracene | ND | | 50 | 35.9 | 72 | 50 | 37.1 | 74 | 3 | 40-140/20 |
| 56-55-3 | Benzo(a)anthracene | ND | | 50 | 40.3 | 81 | 50 | 40.4 | 81 | 0 | 40-140/20 |
| 50-32-8 | Benzo(a)pyrene | ND | | 50 | 38.9 | 78 | 50 | 38.6 | 77 | 1 | 40-140/20 |
| 205-99-2 | Benzo(b)fluoranthene | ND | | 50 | 40.8 | 82 | 50 | 40.2 | 80 | 1 | 40-140/20 |
| 191-24-2 | Benzo(g,h,i)perylene | ND | | 50 | 44.2 | 88 | 50 | 43.9 | 88 | 1 | 40-140/20 |
| 207-08-9 | Benzo(k)fluoranthene | ND | | 50 | 42.1 | 84 | 50 | 42.5 | 85 | 1 | 40-140/20 |
| 218-01-9 | Chrysene | ND | | 50 | 38.7 | 77 | 50 | 38.5 | 77 | 1 | 40-140/20 |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | | 50 | 45.8 | 92 | 50 | 45.6 | 91 | 0 | 40-140/20 |
| 206-44-0 | Fluoranthene | ND | | 50 | 40.7 | 81 | 50 | 40.3 | 81 | 1 | 40-140/20 |
| 86-73-7 | Fluorene | ND | | 50 | 36.8 | 74 | 50 | 37.7 | 75 | 2 | 40-140/20 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | | 50 | 44.7 | 89 | 50 | 44.6 | 89 | 0 | 40-140/20 |
| 90-12-0 | 1-Methylnaphthalene | 0.059 | J | 50 | 31.9 | 64 | 50 | 34.8 | 69 | 9 | 40-140/20 |
| 91-57-6 | 2-Methylnaphthalene | 0.090 | J | 50 | 31.2 | 62 | 50 | 33.9 | 68 | 8 | 40-140/20 |
| 85-01-8 | Phenanthrene | 0.039 | J | 50 | 36.9 | 74 | 50 | 37.7 | 75 | 2 | 40-140/20 |
| 129-00-0 | Pyrene | ND | | 50 | 41.0 | 82 | 50 | 40.4 | 81 | 1 | 40-140/20 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC29800-14 | Limits |
|---|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 66% | 70% | 65% | 30-130% |
| 321-60-8 | 2-Fluorobiphenyl | 65% | 68% | 59% | 30-130% |
| 1718-51-0 | Terphenyl-d14 | 86% | 85% | 80% | 30-130% |

* = Outside of Control Limits.

# Semivolatile Internal Standard Area Summary



**Job Number:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSI3312-CC3238 | **Injection Date:** | 05/05/14 |
| **Lab File ID:** | I88898.D | **Injection Time:** | 08:06 |
| **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 | 331019 | 3.92 | 760358 | 4.97 | 436391 | 6.49 | 736588 | 7.86 | 505551 | 10.63 | 1266134 | 12.10 |
| Upper Limit [a] | 662038 | 4.42 | 1520716 | 5.47 | 872782 | 6.99 | 1473176 | 8.36 | 1011102 | 11.13 | 2532268 | 12.60 |
| Lower Limit [b] | 165510 | 3.42 | 380179 | 4.47 | 218196 | 5.99 | 368294 | 7.36 | 252776 | 10.13 | 633067 | 11.60 |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OP37730-MB | 334876 | 3.92 | 783519 | 4.97 | 444710 | 6.49 | 729996 | 7.86 | 530309 | 10.63 | 1300485 | 12.10 |
| OP37730-BS | 353893 | 3.92 | 821010 | 4.97 | 469560 | 6.49 | 769022 | 7.86 | 555577 | 10.64 | 1338732 | 12.10 |
| OP37730-MS | 345156 | 3.92 | 795573 | 4.97 | 450152 | 6.49 | 742497 | 7.86 | 527682 | 10.64 | 1279002 | 12.10 |
| OP37730-MSD | 372645 | 3.92 | 859970 | 4.97 | 487097 | 6.49 | 784876 | 7.86 | 561339 | 10.64 | 1346172 | 12.10 |
| MC29800-14 | 322281 | 3.92 | 761585 | 4.97 | 436914 | 6.49 | 707748 | 7.86 | 499328 | 10.63 | 1253156 | 12.10 |
| MC29957-1 | 322020 | 3.92 | 748758 | 4.97 | 419877 | 6.49 | 690023 | 7.86 | 483525 | 10.64 | 1194112 | 12.10 |
| OP37871-MB | 301203 | 3.92 | 688854 | 4.97 | 385118 | 6.49 | 619849 | 7.85 | 406503 | 10.63 | 992146 | 12.10 |
| OP37871-BS | 280377 | 3.92 | 645417 | 4.97 | 356222 | 6.49 | 564124 | 7.86 | 388732 | 10.64 | 948119 | 12.10 |
| OP37871-BSD | 325663 | 3.93 | 723427 | 4.97 | 405456 | 6.49 | 624978 | 7.86 | 411440 | 10.64 | 978155 | 12.10 |
| ZZZZZZ | 304981 | 3.92 | 687221 | 4.97 | 369555 | 6.49 | 591488 | 7.85 | 376678 | 10.63 | 910369 | 12.09 |
| ZZZZZZ | 313642 | 3.93 | 721916 | 4.97 | 388015 | 6.49 | 603224 | 7.86 | 367165 | 10.63 | 912485 | 12.10 |
| ZZZZZZ | 308035 | 3.92 | 715209 | 4.97 | 385806 | 6.49 | 616678 | 7.85 | 387413 | 10.63 | 971939 | 12.10 |
| ZZZZZZ | 317708 | 3.92 | 741081 | 4.97 | 394498 | 6.49 | 614572 | 7.86 | 390291 | 10.63 | 927866 | 12.10 |
| OP37785-MB | 623476 | 3.92 | 1439986 | 4.97 | 797907 | 6.50 | 1283568 | 7.86 | 858145 | 10.64 | 2138438 | 12.10 |
| OP37785-BS | 585272 | 3.92 | 1351885 | 4.97 | 747697 | 6.49 | 1209206 | 7.86 | 818508 | 10.64 | 1996779 | 12.11 |
| OP37785-BSD | 581052 | 3.92 | 1345330 | 4.97 | 743450 | 6.49 | 1198420 | 7.86 | 822207 | 10.64 | 2013115 | 12.11 |
| ZZZZZZ | 539815 | 3.92 | 1215509 | 4.97 | 677851 | 6.49 | 1078484 | 7.86 | 746220 | 10.64 | 1838250 | 12.10 |
| ZZZZZZ | 542548 | 3.92 | 1233479 | 4.97 | 681702 | 6.49 | 1113615 | 7.86 | 740334 | 10.64 | 1867091 | 12.10 |
| ZZZZZZ | 541364 | 3.92 | 1226174 | 4.97 | 669838 | 6.49 | 1076997 | 7.86 | 726599 | 10.64 | 1807005 | 12.10 |
| ZZZZZZ | 554349 | 3.92 | 1283499 | 4.97 | 706092 | 6.49 | 1155802 | 7.86 | 781290 | 10.64 | 1965373 | 12.10 |

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:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSR1426-CC1410 | **Injection Date:** | 05/03/14 |
| **Lab File ID:** | R38708.D | **Injection Time:** | 08:52 |
| **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 | 205395 | 5.33 | 785150 | 6.43 | 453319 | 7.97 | 770949 | 9.27 | 736243 | 11.87 | 643107 | 13.57 |
| Upper Limit [a] | 410790 | 5.83 | 1570300 | 6.93 | 906638 | 8.47 | 1541898 | 9.77 | 1472486 | 12.37 | 1286214 | 14.07 |
| Lower Limit [b] | 102698 | 4.83 | 392575 | 5.93 | 226660 | 7.47 | 385475 | 8.77 | 368122 | 11.37 | 321554 | 13.07 |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OP37843-MB | 201759 | 5.33 | 774282 | 6.43 | 445290 | 7.96 | 739691 | 9.27 | 718773 | 11.86 | 651005 | 13.56 |
| OP37843-BS | 223845 | 5.33 | 854124 | 6.43 | 492610 | 7.97 | 817769 | 9.27 | 782172 | 11.86 | 677957 | 13.57 |
| OP37843-MS | 201098 | 5.33 | 762455 | 6.43 | 441474 | 7.97 | 724782 | 9.27 | 691827 | 11.86 | 605171 | 13.57 |
| OP37843-MSD | 203456 | 5.33 | 780503 | 6.43 | 447988 | 7.97 | 734688 | 9.27 | 690487 | 11.86 | 601154 | 13.56 |
| MC30000-14 | 203737 | 5.33 | 784827 | 6.43 | 454482 | 7.97 | 755653 | 9.27 | 735722 | 11.86 | 666051 | 13.56 |
| ZZZZZZ | 201364 | 5.33 | 772616 | 6.43 | 454905 | 7.96 | 750148 | 9.27 | 727118 | 11.86 | 648502 | 13.56 |
| ZZZZZZ | 191503 | 5.33 | 732585 | 6.43 | 428175 | 7.96 | 707123 | 9.27 | 679036 | 11.86 | 613710 | 13.56 |
| ZZZZZZ | 205520 | 5.33 | 792652 | 6.43 | 461731 | 7.97 | 763263 | 9.27 | 736464 | 11.86 | 670399 | 13.57 |
| ZZZZZZ | 180177 | 5.33 | 708329 | 6.43 | 406820 | 7.97 | 685808 | 9.27 | 665564 | 11.86 | 620610 | 13.56 |
| ZZZZZZ | 203696 | 5.33 | 778969 | 6.43 | 446017 | 7.97 | 714203 | 9.27 | 649638 | 11.86 | 594263 | 13.56 |
| ZZZZZZ | 203573 | 5.33 | 781404 | 6.43 | 453395 | 7.97 | 736698 | 9.27 | 695609 | 11.86 | 630810 | 13.57 |
| ZZZZZZ | 209236 | 5.33 | 807327 | 6.43 | 466309 | 7.97 | 752066 | 9.27 | 670332 | 11.86 | 604940 | 13.56 |
| OP37843-MS1 | 210362 | 5.33 | 805645 | 6.43 | 463893 | 7.97 | 754364 | 9.27 | 699561 | 11.86 | 623345 | 13.57 |
| OP37843-MSD1 | 206368 | 5.33 | 781806 | 6.43 | 445989 | 7.97 | 726500 | 9.27 | 669334 | 11.86 | 586689 | 13.57 |
| MC30145-1 | 204264 | 5.33 | 781916 | 6.43 | 445261 | 7.97 | 716813 | 9.27 | 663248 | 11.86 | 599766 | 13.56 |
| ZZZZZZ | 194461 | 5.33 | 743135 | 6.43 | 429469 | 7.97 | 712073 | 9.27 | 642413 | 11.86 | 576768 | 13.56 |
| ZZZZZZ | 214889 | 5.33 | 824813 | 6.43 | 480315 | 7.97 | 771151 | 9.27 | 682894 | 11.86 | 608681 | 13.56 |
| ZZZZZZ | 197375 | 5.33 | 754189 | 6.43 | 445703 | 7.97 | 728240 | 9.27 | 645730 | 11.86 | 579127 | 13.56 |
| ZZZZZZ | 207154 | 5.33 | 803108 | 6.43 | 460137 | 7.97 | 758258 | 9.27 | 704015 | 11.86 | 630449 | 13.56 |
| ZZZZZZ | 194464 | 5.33 | 756526 | 6.43 | 442691 | 7.97 | 756257 | 9.27 | 751940 | 11.86 | 685124 | 13.56 |
| OP37729-MB | 209585 | 5.33 | 819776 | 6.43 | 476393 | 7.97 | 799735 | 9.27 | 742624 | 11.86 | 642110 | 13.56 |
| OP37729-BS | 225780 | 5.33 | 885490 | 6.43 | 517110 | 7.97 | 845681 | 9.27 | 785543 | 11.86 | 678627 | 13.57 |
| OP37729-MS | 225144 | 5.34 | 874659 | 6.43 | 511558 | 7.97 | 826015 | 9.27 | 755740 | 11.86 | 652329 | 13.57 |
| OP37729-MSD | 223545 | 5.33 | 868283 | 6.43 | 501997 | 7.97 | 820184 | 9.27 | 765450 | 11.86 | 666660 | 13.57 |
| MC29800-13 | 197987 | 5.33 | 779152 | 6.43 | 457606 | 7.96 | 757510 | 9.27 | 724916 | 11.85 | 645418 | 13.56 |
| ZZZZZZ | 199892 | 5.33 | 787949 | 6.43 | 458644 | 7.96 | 767930 | 9.27 | 699056 | 11.86 | 621562 | 13.56 |
| MC29957-1 | 205987 | 5.33 | 799801 | 6.43 | 467826 | 7.97 | 773044 | 9.27 | 705365 | 11.86 | 641877 | 13.57 |

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

# Semivolatile Internal Standard Area Summary



**Job Number:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | MSR1426-CC1410 | **Injection Date:** | 05/03/14 |
| **Lab File ID:** | R38708.D | **Injection Time:** | 08:52 |
| **Instrument ID:** | GCMSR | **Method:** | SW846 8270D |

| Lab Sample ID | IS 1 | | IS 2 | | IS 3 | | IS 4 | | IS 5 | | IS 6 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 |
|---|---|---|---|---|---|---|---|
| MC29957-1 | R38735.D | 31 | 22 | 70 | 51 | 59 | 75 |
| OP37729-BS | R38730.D | 39 | 28 | 62 | 63 | 67 | 72 |
| OP37729-MB | R38729.D | 37 | 24 | 56 | 60 | 65 | 74 |
| OP37729-MS | R38731.D | 38 | 27 | 70 | 63 | 69 | 85 |
| OP37729-MSD | R38732.D | 38 | 28 | 70 | 66 | 73 | 83 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = 2-Fluorophenol | 15-110% |
| S2 = Phenol-d5 | 15-110% |
| S3 = 2,4,6-Tribromophenol | 15-110% |
| S4 = Nitrobenzene-d5 | 30-130% |
| S5 = 2-Fluorobiphenyl | 30-130% |
| S6 = Terphenyl-d14 | 30-130% |

# Semivolatile Surrogate Recovery Summary



**Job Number:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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 |
|---|---|---|---|---|
| MC29957-1 | I88904.D | 55 | 56 | 77 |
| OP37730-BS | I88900.D | 67 | 63 | 73 |
| OP37730-MB | I88899.D | 62 | 59 | 73 |
| OP37730-MS | I88901.D | 66 | 65 | 86 |
| OP37730-MSD | I88902.D | 70 | 68 | 85 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = Nitrobenzene-d5 | 30-130% |
| S2 = 2-Fluorobiphenyl | 30-130% |
| S3 = Terphenyl-d14 | 30-130% |

## 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:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37779-MB | YZ89456A.D | 1 | 04/27/14 | SZ | 04/24/14 | OP37779 | GYZ7549 |

**The QC reported here applies to the following samples:** **Method:** SW846 8011

MC29957-1, MC29957-2

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 0.015 | 0.0054 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.015 | 0.011 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 132% | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 142% | 36-173% |

# Blank Spike Summary



**Job Number:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37779-BS | YZ89457A.D | 1 | 04/27/14 | SZ | 04/24/14 | OP37779 | GYZ7549 |

**The QC reported here applies to the following samples:** **Method:** SW846 8011

MC29957-1, MC29957-2

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 0.071 | 0.086 | 121 | 60-140 |
| 106-93-4 | 1,2-Dibromoethane | 0.071 | 0.085 | 120 | 60-140 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 113% | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 126% | 36-173% |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP37779-MS | YZ89460A.D | 1 | 04/27/14 | SZ | 04/24/14 | OP37779 | GYZ7549 |
| OP37779-MSD | YZ89461A.D | 1 | 04/27/14 | SZ | 04/24/14 | OP37779 | GYZ7549 |
| MC30000-2 | YZ89462A.D | 1 | 04/27/14 | SZ | 04/24/14 | OP37779 | GYZ7549 |

**The QC reported here applies to the following samples:** **Method:** SW846 8011

MC29957-1, MC29957-2

| CAS No. | Compound | MC30000-2 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 | | 0.0686 | 0.10 | 146* [a] | 0.0683 | 0.11 | 161* [a] | 10 | 64-141/29 |
| 106-93-4 | 1,2-Dibromoethane | ND | | 0.0686 | 0.092 | 134 | 0.0683 | 0.10 | 146 | 8 | 63-163/27 |

| CAS No. | Surrogate Recoveries | MS | MSD | MC30000-2 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | Bromofluorobenzene (S) | 126% | 118% | 125% | 36-173% |
| 460-00-4 | Bromofluorobenzene (S) | 131% | 131% | 135% | 36-173% |

(a) Outside control limits due to possible matrix interference.

* = Outside of Control Limits.

# Volatile Surrogate Recovery Summary



**Job Number:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 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] |
|---|---|---|---|
| MC29957-1 | YZ89471.D | 92 | 101 |
| MC29957-2 | YZ89472.D | 109 | 121 |
| OP37779-BS | YZ89457A.D | 113 | 126 |
| OP37779-MB | YZ89456A.D | 132 | 142 |
| OP37779-MS | YZ89460A.D | 126 | 131 |
| OP37779-MSD | YZ89461A.D | 118 | 131 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| S1 = Bromofluorobenzene (S) | 36-173% |

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

# GC Surrogate Retention Time Summary



**Job Number:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | GYZ7549-ICC7549 | **Injection Date:** | 04/27/14 |
| **Lab File ID:** | YZ89452.D | **Injection Time:** | 14:02 |
| **Instrument ID:** | GCYZ | **Method:** | SW846 8011 |

| | S1 [a] RT | S1 [b] RT |
|---|---|---|
| Check Std | 4.01 | 4.57 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 [a] RT | S1 [b] RT |
|---|---|---|---|---|---|
| OP37779-MB | YZ89456A.D | 04/27/14 | 15:48 | 4.01 | 4.57 |
| OP37778-MB | YZ89456.D | 04/27/14 | 15:48 | 4.01 | 4.57 |
| OP37779-BS | YZ89457A.D | 04/27/14 | 16:14 | 4.00 | 4.57 |
| OP37778-BS | YZ89457.D | 04/27/14 | 16:14 | 4.00 | 4.57 |
| ZZZZZZ | YZ89459.D | 04/27/14 | 17:05 | 4.01 | 4.57 |
| OP37778-MS | YZ89460.D | 04/27/14 | 17:32 | 4.00 | 4.57 |
| OP37779-MS | YZ89460A.D | 04/27/14 | 17:32 | 4.00 | 4.57 |
| OP37779-MSD | YZ89461A.D | 04/27/14 | 17:59 | 4.01 | 4.57 |
| OP37778-MSD | YZ89461.D | 04/27/14 | 17:59 | 4.01 | 4.57 |
| MC30000-2 | YZ89462A.D | 04/27/14 | 18:24 | 4.00 | 4.57 |
| MC29889-4 | YZ89462.D | 04/27/14 | 18:24 | 4.00 | 4.57 |
| ZZZZZZ | YZ89463.D | 04/27/14 | 18:51 | 4.00 | 4.57 |
| ZZZZZZ | YZ89464.D | 04/27/14 | 19:16 | 4.00 | 4.57 |
| ZZZZZZ | YZ89465.D | 04/27/14 | 19:42 | 4.00 | 4.57 |

**Surrogate Compounds**

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

# GC Surrogate Retention Time Summary



**Job Number:** MC29957
**Account:** SHELLWIC Shell Oil
**Project:** URSMOSTL:Roxana 2Q14 GW/ 21562973.03002 900 South Central Avenue, Roxana, IL

| | | | |
|---|---|---|---|
| **Check Std:** | GYZ7549-CC7549 | **Injection Date:** | 04/27/14 |
| **Lab File ID:** | YZ89466.D | **Injection Time:** | 20:09 |
| **Instrument ID:** | GCYZ | **Method:** | SW846 8011 |

| | S1 [a] RT | S1 [b] RT |
|---|---|---|
| Check Std | 4.00 | 4.57 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 [a] RT | S1 [b] RT |
|---|---|---|---|---|---|
| ZZZZZZ | YZ89467.D | 04/27/14 | 20:35 | 4.00 | 4.57 |
| ZZZZZZ | YZ89468.D | 04/27/14 | 21:02 | 4.00 | 4.57 |
| ZZZZZZ | YZ89469.D | 04/27/14 | 21:28 | 4.00 | 4.57 |
| ZZZZZZ | YZ89470.D | 04/27/14 | 21:54 | 4.00 | 4.57 |
| MC29957-1 | YZ89471.D | 04/27/14 | 22:20 | 4.00 | 4.57 |
| MC29957-2 | YZ89472.D | 04/27/14 | 22:46 | 4.00 | 4.57 |
| GYZ7549-ECC7549 | YZ89473.D | 04/27/14 | 23:12 | 4.00 | 4.57 |

**Surrogate Compounds**

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1