



Illinois Environmental Protection Agency

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

ILLINOIS EPA RCRA CORRECTIVE ACTION CERTIFICATION

This certification must accompany any document submitted to Illinois EPA in accordance with the corrective action requirements set forth in a facility's RCRA permit. The original and two copies of all documents submitted must be provided.

1.0 Facility Identification

Name Equilon Enterprises LLC d/b/a/ SOPUS County Madison
 Street Address 900 South Central Ave Site No. (IEPA) 1191150002
 City Roxana Site No. (USEPA) ILD080012305

2.0 Owner Information

Name _____
 Mail Address _____
 City _____
 State _____ Zip Code _____
 Contact Name _____
 Contact Title _____
 Phone _____

3.0 Operator Information

Name Equilon Enterprises LLC d/b/a/ SOPUS
 Mail Address 128 East Center Street
 City Nazareth
 State PA Zip Code 18064
 Contact Name Leroy Bealer
 Contact Title Senior Program Manager
 Phone 484-632-7955

4.0 Type of Submission (check applicable item and provide requested information, as applicable)

RFI Phase I Workplan/Report IEPA Permit Log No. B-43R
 RFI Phase II Workplan/Report Date of Last IEPA Letter on Project January 26, 2024
 CMP Report; Log No. of Last IEPA Letter on Project B-43R-CA-93
 Other (describe): Response to IEPA Letter dated July 27, 2016 Does this submittal include groundwater information: Yes No
 Date of Submittal 10/14/2016

5.0 Description of Submittal: (briefly describe what is being submitted and its purpose)

Wet-signed RCRA Corrective Action Certification to be attached to referenced submittal previously submitted to IEPA

6.0 Documents Submitted (identify all documents in submittal, including cover letter; give dates of all documents)

RCRA Corrective Action Certification.

Copy of submittal also sent directly to Amy Butler of IEPA.

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

Date of Submission: 10/14/16

7.0 Certification Statement

(This statement is part of the overall certification being provided by the owner/operator, professional and laboratory in Items 7.1, 7.2 and 7.3 below). The activities described in the subject submittals have been carried out in accordance with procedures approved by Illinois EPA. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

7.1 Owner/Operator Certification

(Must be completed for all submittals. Certification and signature requirements are set forth in 35 IAC 702.126.) All submittals pertaining to the corrective action requirements set forth in a RCRA Permit must be signed by the person designated below (or by a duly authorized representative of that person):

1. For a Corporation, by a principal executive officer of at least the level of vice president.
2. For a Partnership or Sole Proprietorship, by a general partner or the proprietor, respectively.
3. For a Governmental Entity, by either a principal executive officer or a ranking elected official.

A person is a duly authorized representative only if:

1. the authorization is made in writing by a person described above; and
2. the written authorization is provided with this submittal (a copy of a previously submitted authorization can be used).

Owner Signature: _____ Date: _____
 Title: _____
 Operator Signature: _____ Date: 3-7-2024
 Title: Senior Program Manager

7.2 Professional Certification (if necessary)

Work carried out in this submittal or the regulations may also be subject to other laws governing professional services, such as the Illinois Professional Land Surveyor Act of 1989, the Professional Engineering Practice Act of 1989, the Professional Geologist Licensing Act, and the Structural Engineering Licensing Act of 1989. No one is relieved from compliance with these laws and the regulations adopted pursuant to these laws. All work that falls within the scope and definitions of these laws must be performed in compliance with them. The Illinois EPA may refer any discovered violation of these laws to the appropriate regulating authority.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44 (h))

Professional's Signature: Wendy Pennington Date: 3-11-2024
 Professional's Name Wendy Pennington
 Address 100 N. Broadway, 20th Floor Professional's Seal:
 City St. Louis
 State MO Zip Code 63102
 Phone 314-452-8929



IEPA RCRA Corrective Action Certification

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

Date of Submission: 10/14/2016

7.3 Laboratory Certification (if necessary)

The sample collection, handling, preservation, preparation and analysis efforts for which this laboratory was responsible were carried out in accordance with procedures approved by Illinois EPA.

Name of Laboratory _____

Date: _____

Signature of Laboratory Responsible Officer

Mailing Address of Laboratory

Address _____

City _____

State _____ Zip Code _____

Name and Title of Laboratory Responsible Officer

October 14, 2016

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

**Subject: Response to IEPA Letter dated July 27, 2016 – Groundwater Conditions near East 3rd and Chaffer Streets
Roxana, Illinois
1191150002 – Madison County
Equilon Enterprises LLC d/b/a Shell Oil Products US
Log No. B-43R-CA-63**

Dear Ms. Munie;

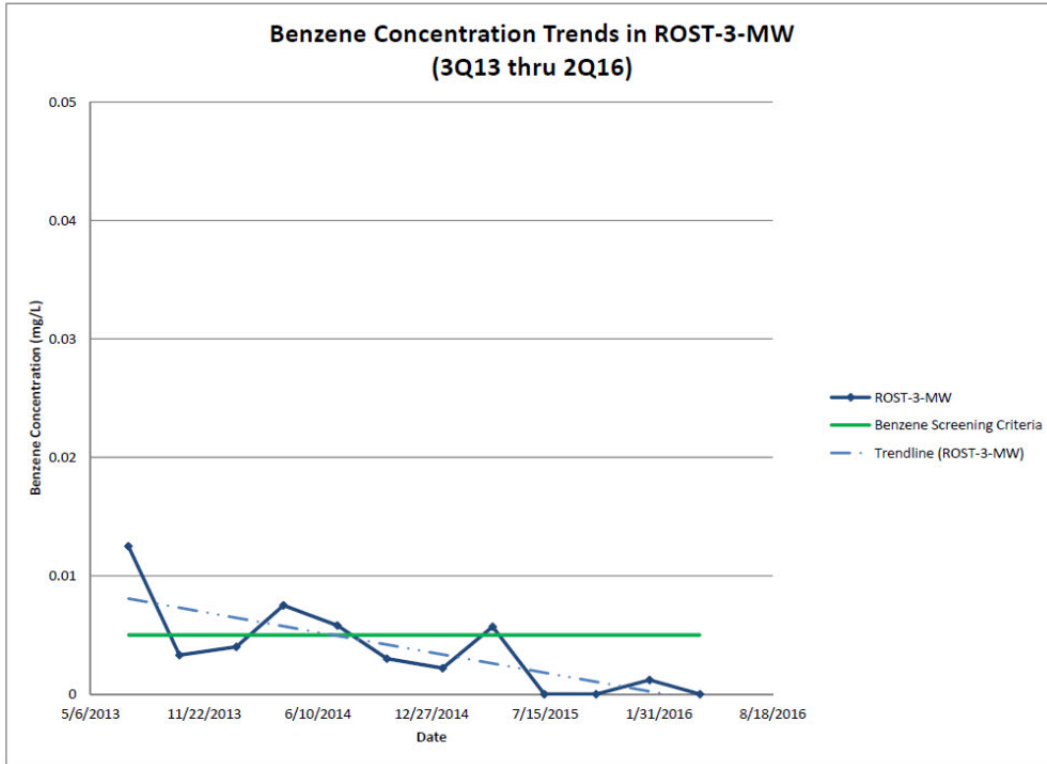
AECOM Technical Services Inc. (AECOM), on behalf of Shell Oil Products US (SOPUS), is providing this letter in response to the Illinois Environmental Protection Agency's (IEPA's) July 27, 2016 letter. In that letter, the IEPA approved the URS Corporation (now AECOM) letter entitled *Response to IEPA Letter April 8, 2013 – Groundwater Conditions near East 3rd and Chaffer Streets* (Response Letter), which was dated July 29, 2013. The IEPA also included a condition requesting a proposal be submitted to address the potentiometric high in the northern portion of the study area as follows:

Condition 1 (with parts a and b) of the IEPA's July 27, 2016 letter requested "a proposal to install an adequate number of nested wells to monitor the extent of the low-permeability zone", and "...to verify groundwater quality, flow directions, and hydraulic gradients that show pumping overcome potential radial flow."

In the time since the July 29, 2013 response letter was submitted to the IEPA, several additional monitoring wells have been installed within the Village of Roxana in 2013 and 2014 (see attached **Figure 1**). Five new wells (MW-17, MW-22, MW-24, MW-27 and MW-28 – noted on **Figure 1**) were installed and used to further characterize the area, including the extent of the low permeability zone and the potentiometric conditions in vicinity of 3rd and Chaffer Streets. Soil sampling performed during the installation of these wells confirmed the horizontal and vertical extent of the low permeability zone as they were presented in the July 29, 2013 response letter.

These five new monitoring wells, shown on **Figure 1** were added to the Interim Groundwater Monitoring Program and have been used to monitor groundwater quality and flow. The groundwater quality information from these five new monitoring wells coupled with the monitoring wells within the Interim Groundwater Monitoring Program were used to develop the document titled: *Demonstration to Verify the Extent of Groundwater Contamination has been Delineated in Roxana, Illinois*. This document, dated April 16, 2015, was submitted to IEPA. In a letter dated February 23, 2016 (Log No. B-43R-CA-85 and CA-90), IEPA concurred that the extent of groundwater contamination has been

Exhibit 2



The data presented in this letter demonstrates that while the local potentiometric high may have a localized groundwater gradient in a westerly direction on the western flank, the wider capture zone associated with the WRR pumping wells limits any groundwater movement in this direction. This is supported by the groundwater contours and by the benzene data, which demonstrates that dissolved benzene impact is not migrating to the north or west away from the WRR and that pumping is adequate to overcome intermittent radial flow above the local potentiometric high.

Based on the additional monitoring wells that have already been installed and the above presented information, nested wells are not being proposed at this time. However, as requested by Condition 2 of the IEPA's July 27, 2016 letter, an additional section of text will be added to Roxana Interim Groundwater Monitoring Program reports, beginning in the 4th quarter 2016, to provide a more detailed discussion of the potentiometric surface in the ROST-4-PZ area.

If you have any questions or require further information, please contact Bob Billman at bob.billman@aecom.com or 314-743-4108.

Sincerely,
AECOM, on behalf of Shell Oil Products US





Wendy Pennington, PE
Project Engineer

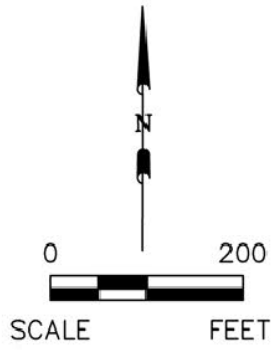
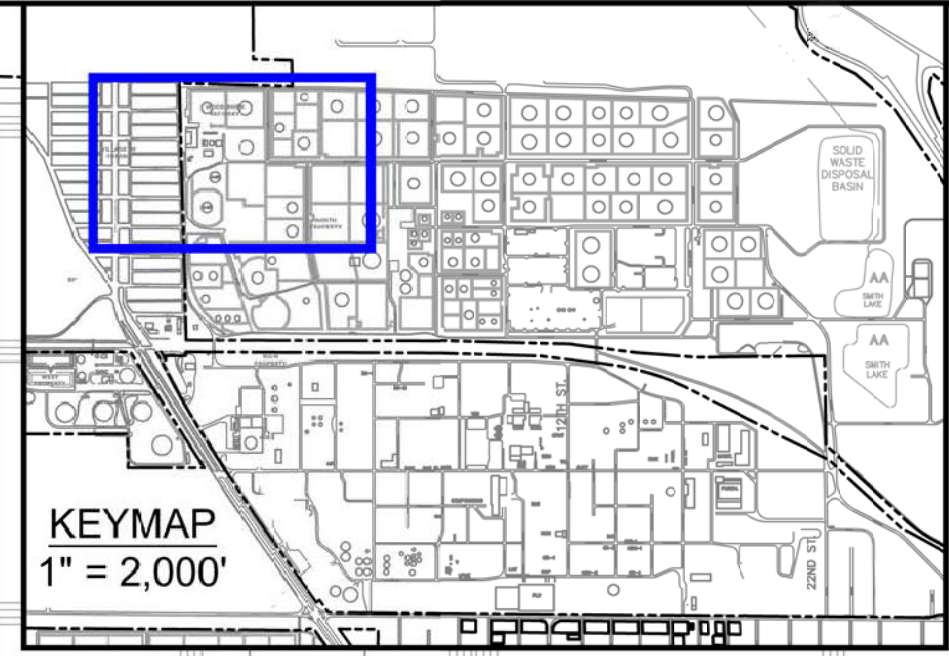
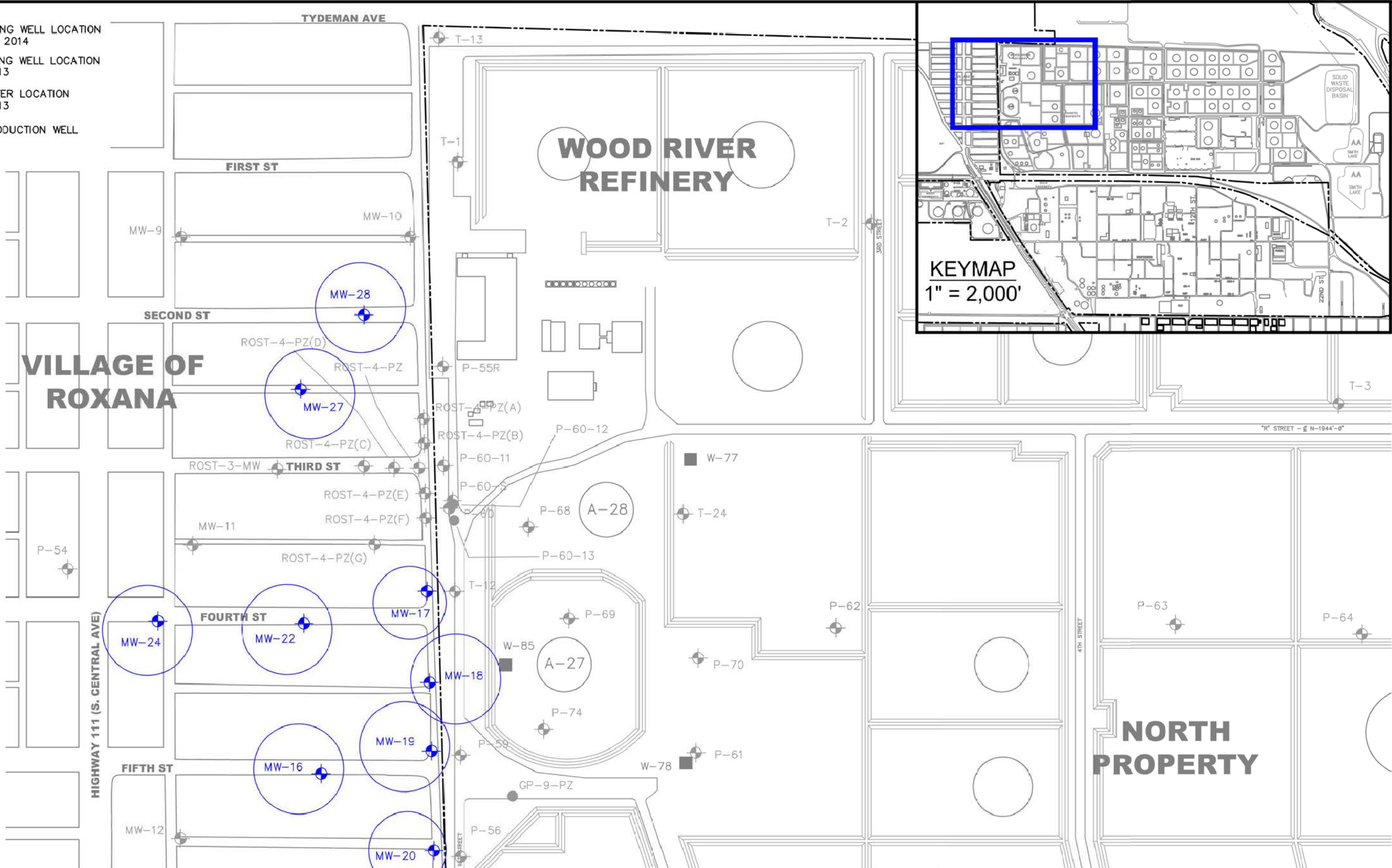
Robert B. Billman
Senior Project Manager


Attachments: **Figure 1** Groundwater Monitoring Wells Installed in 2013 & 2014
Figure 2 Groundwater Flow & Benzene Concentration Contours 2Q15
Figure 3 Groundwater Flow & Benzene Concentration Contours 2Q16

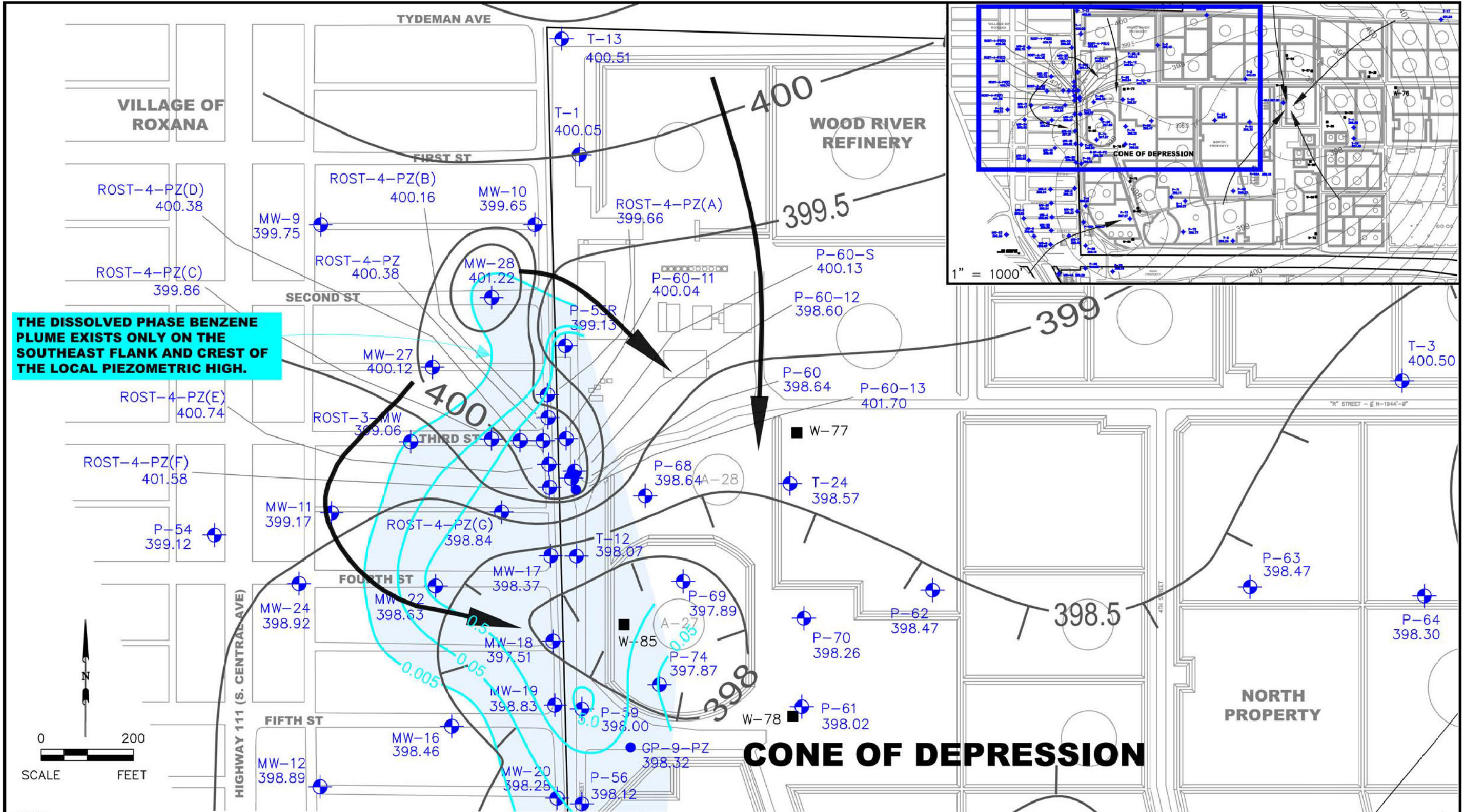
Cc: Kevin Dyer, SOPUS
Eric Petersen, Phillips 66
Project File
Repositories (Roxana Public Library, Roxana Village Hall, Website)

LEGEND

-  GROUNDWATER MONITORING WELL LOCATION INSTALLED IN 2013 AND 2014
-  GROUNDWATER MONITORING WELL LOCATION INSTALLED PRIOR TO 2013
-  GROUNDWATER PIEZOMETER LOCATION INSTALLED PRIOR TO 2013
-  WRR GROUNDWATER PRODUCTION WELL



SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS	PROJECT NO. 60477387
	
DRN. BY: wmp October 2016 DSGN. BY: djd CHKD. BY: b3	Groundwater Monitoring Wells Installed in 2013 & 2014
FIG. NO. 1	

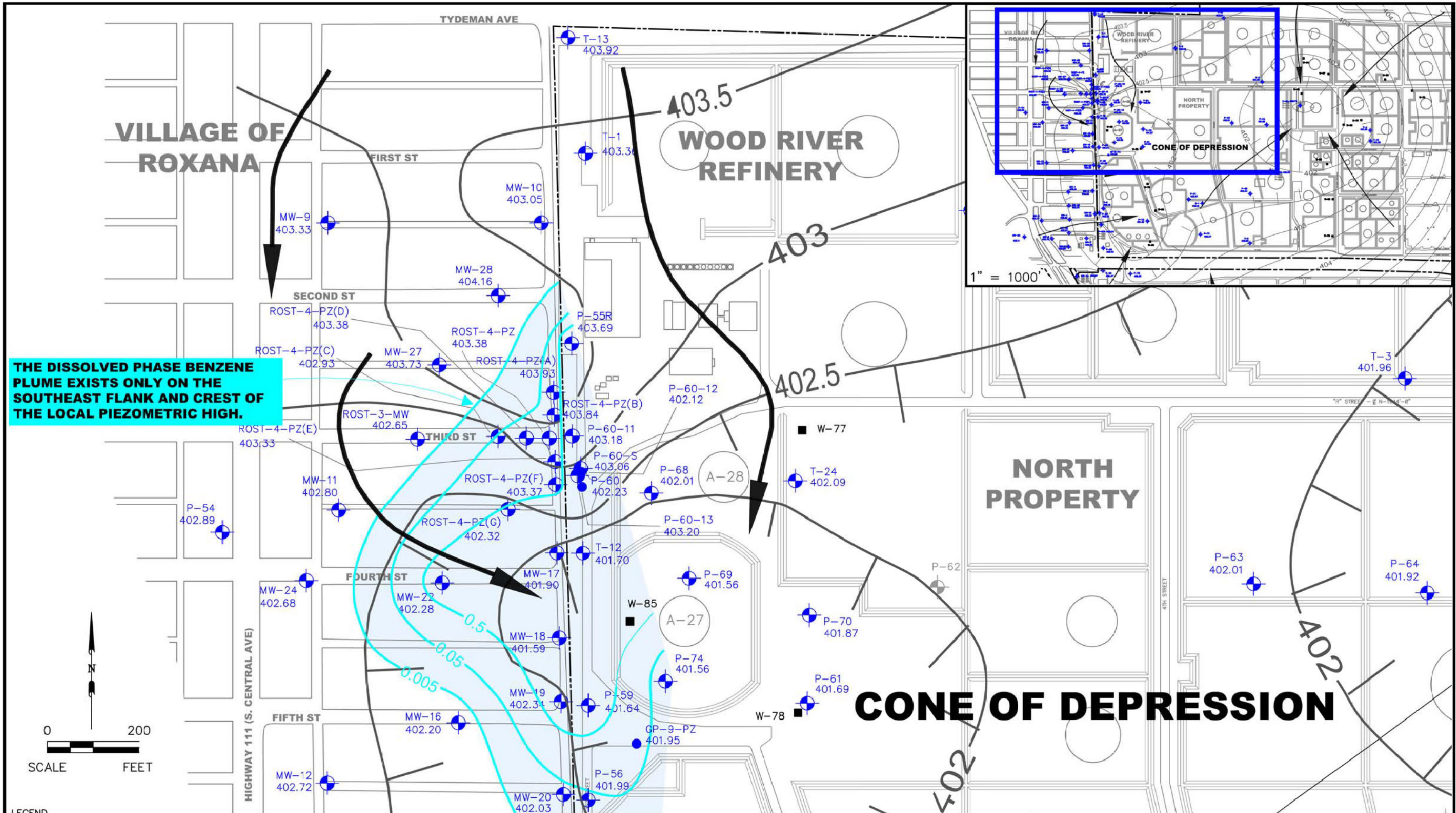


THE DISSOLVED PHASE BENZENE PLUME EXISTS ONLY ON THE SOUTHEAST FLANK AND CREST OF THE LOCAL PIEZOMETRIC HIGH.

- LEGEND**
- ⊕ GROUNDWATER MONITORING WELL
 - GROUNDWATER PIEZOMETER
 - WRR WATER PRODUCTION WELL
 - 407 — GROUNDWATER CONTOUR (0.5 FT INTERVAL)
 - ➔ GROUNDWATER GRADIENT
 - DISSOLVED PHASE BENZENE CONCENTRATION (mg/L)

- NOTES:**
1. GROUNDWATER CONTOUR LINES PRIMARILY GENERATED BY SURFER VERSION 8 MODELING OF GROUNDWATER ELEVATIONS. SOME INTERPRETATION AND MODIFICATION WAS DONE UTILIZING PROFESSIONAL JUDGMENT.
 2. CONCENTRATION CONTOUR LINES PRIMARILY GENERATED BY CTECH ENVIRONMENTAL VISUALIZATION SYSTEM (EVS) MODELING SOFTWARE. CONCENTRATIONS BETWEEN MONITORING WELLS ARE INTERPOLATIONS AND EXTRAPOLATIONS OF THE MEASURED DATA. SOME INTERPRETATION AND MODIFICATION WAS COMPLETED UTILIZING PROFESSIONAL JUDGEMENT.
 3. ELEVATIONS ARE RELATIVE TO 1988 USGS DATUM.
 4. COMPREHENSIVE GROUNDWATER ELEVATIONS WERE MEASURED APRIL 1-6, 2015.

SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 60477387
AECOM		
DRN. BY:wmp October 2016 DSGN. BY:djd CHKD. BY:b3	Groundwater Flow & Benzene Concentration Contours 2Q15	FIG. NO. 2



THE DISSOLVED PHASE BENZENE PLUME EXISTS ONLY ON THE SOUTHEAST FLANK AND CREST OF THE LOCAL PIEZOMETRIC HIGH.

- LEGEND**
- ⊕ GROUNDWATER MONITORING WELL
 - GROUNDWATER PIEZOMETER
 - WRR WATER PRODUCTION WELL
 - 407 — GROUNDWATER CONTOUR (0.5 FT INTERVAL)
 - GROUNDWATER GRADIENT
 - 0.005 — DISSOLVED PHASE BENZENE CONCENTRATION (mg/L)

- NOTES:**
1. GROUNDWATER CONTOUR LINES PRIMARILY GENERATED BY SURFER VERSION 8 MODELING OF GROUNDWATER ELEVATIONS. SOME INTERPRETATION AND MODIFICATION WAS DONE UTILIZING PROFESSIONAL JUDGEMENT.
 2. CONCENTRATION CONTOUR LINES PRIMARILY GENERATED BY CTECH ENVIRONMENTAL VISUALIZATION SYSTEM (EVS) MODELING SOFTWARE. CONCENTRATIONS BETWEEN MONITORING WELLS ARE INTERPOLATIONS AND EXTRAPOLATIONS OF THE MEASURED DATA. SOME INTERPRETATION AND MODIFICATION WAS COMPLETED UTILIZING PROFESSIONAL JUDGEMENT.
 3. ELEVATIONS ARE RELATIVE TO 1988 USGS DATUM.
 4. COMPREHENSIVE GROUNDWATER ELEVATIONS WERE MEASURED APRIL 4-5, 2016.

SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 60477387
AECOM		
DRN. BY:wmp October 2016 DSGN. BY:djd CHKD. BY:b3	Groundwater Flow Contours & Benzene Concentration Contours 2Q16	FIG. NO. 3



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1.0 Facility Identification

Name WRB Refining LP - Wood River Refinery County Madison
 Street Address 900 South Central Ave. Site No. (IEPA) 1191150002
 City Roxana, IL 62084 Site No. (USEPA) ILD 080 012 305

2.0 Owner Information

Name Not Applicable
 Mail Address _____
 City _____
 State _____ Zip Code _____
 Contact Name _____
 Contact Title _____
 Phone _____

3.0 Operator Information

Name Equilon Enterprises LLC d/b/a Shell Oil Products US
 Mail Address 17 Junction Drive PMB #399
 City Glen Carbon
 State IL Zip Code 62034
 Contact Name Kevin Dyer
 Contact Title Principal Program Manager
 Phone 618-288-7237

4.0 Type of Submission (check applicable item and provide requested information, as applicable)

RFI Phase I Workplan/Report IEPA Permit Log No. B-43R
 RFI Phase II Workplan/Report Date of Last IEPA Letter on Project July 27, 2016
 CMP Report; Log No. of Last IEPA Letter on Project B-43R-CA-63
 Other (describe): Does this submittal include groundwater information: Yes No
Response to IEPA Letter dated July 27, 2016 - Groundwater Conditions near East 3rd & Chaffer Streets in Roxana, IL
 Date of Submittal 10/19/16

5.0 Description of Submittal: (briefly describe what is being submitted and its purpose)

Response to IEPA Letter dated July 27, 2016

6.0 Documents Submitted (identify all documents in submittal, including cover letter; give dates of all documents)

Corrective Action Certification and Letter with attachments

7.0 Certification Statement

(This statement is part of the overall certification being provided by the owner/operator, professional and laboratory in items 7.1, 7.2 and 7.3 below). The activities described in the subject submittals have been carried out in accordance with procedures approved by Illinois EPA. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

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

Date of Submission: 10/14/16

7.1 Owner/Operator Certification

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A person is a duly authorized representative only if:

1. the authorization is made in writing by a person described above; and
2. the written authorization is provided with this submittal (a copy of a previously submitted authorization can be used).

Owner Signature: _____ Date: _____

Title: _____

Operator Signature: *Kevin Edge* Date: 10/7/16

Title: Senior Principal Program Manager

7.2 Professional Certification (if necessary)

Work carried out in this submittal or the regulations may also be subject to other laws governing professional services, such as the Illinois Professional Land Surveyor Act of 1989, the Professional Engineering Practice Act of 1989, the Professional Geologist Licensing Act, and the Structural Engineering Licensing Act of 1989. No one is relieved from compliance with these laws and the regulations adopted pursuant to these laws. All work that falls within the scope and definitions of these laws must be performed in compliance with them. The Illinois EPA may refer any discovered violation of these laws to the appropriate regulating authority.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44 (h))

Professional's Signature: *Robert B. Billman* Date: 10/14/16

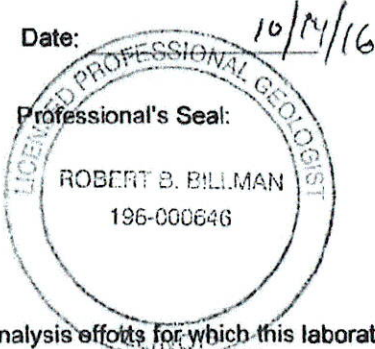
Professional's Name Robert B. Billman

Address AECOM, 1001 Highlands Plaza Drive West, Suite 300

City St. Louis

State MO Zip Code 63110

Phone 314-743-4108



7.3 Laboratory Certification (if necessary)

The sample collection, handling, preservation, preparation and analysis efforts for which this laboratory was responsible were carried out in accordance with procedures approved by Illinois EPA.

Name of Laboratory _____

Date: _____

Signature of Laboratory Responsible Officer

Mailing Address of Laboratory

Address _____

City _____

State _____ Zip Code _____

Name and Title of Laboratory Responsible Officer