

Illinois Environmental Protection Agency Bureau of Land 1021 North Grand Avenue East Box 19276 Springfield, IL 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:WRB Refining LP - Wood River RefinerySiteFacility Address:900 S. Central Ave; Roxana, IL 62048Fed

Site ID #: <u>1191150002</u> Fed ID #: ILD 080 012 305

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

- LPC-160 Forms
 - Groundwater
 - Quarterly Indicate one: 1 2 3 4
 - Semi-Annual
 - Annual
 - ____ Biennial

Leachate Quarterly – Indicate one: 1 2 3 4 Semi-Annual Annual Biennial

- Groundwater Data (without LPC-160 Forms)
 ____ Quarterly Indicate one: 1 2 3 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 III. Adm. Code 724.198)
- ____ Notice of Exceedence of Groundwater Concentration Limit (35 III. Adm. Code 724.199(h))
- ____ Notice of Alternate Source or Error in Sampling Analysis or Evaluation of Groundwater (35 III. Adm. Code 724.199(i))
- ____ Gas Monitoring Reports
- X Other (identify) Notification of potentially compromised groundwater monitoring well P-55 and proposal for installation of a replacement monitoring well per Condition IV.D.4 of the permit.



September 12, 2012

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

Subject: Damaged Well and Replacement Plan Notification WRB Refining LP Wood River Refinery Roxana, Illinois 119115002 – Madison County Equilon Enterprises LLC d/b/a Shell Oil Products US Log No. B-43-R

Dear Mr. Nightingale:

On behalf of Shell Oil Products US (SOPUS), URS Corporation (URS) is submitting this notification in accordance with Condition IV.D.4 of the RCRA Part B Permit. Monitoring well P-55 is located along the west fenceline of the North Property at the WRB Refining LP Wood River Refinery (WRR). During the 3rd quarter 2012 sampling event for the Roxana, Illinois project, sand from the sand pack around the screen of monitoring well P-55 was observed being removed during well purging. There has also been some difficulty lowering and removing the submersible pump, indicating possible issues with the riser pipe of the monitoring well. Due to the potential compromised integrity of the screen of monitoring well P-55, we propose a replacement well be installed. Refer to **Figure 1** for the proposed location and an alternate location for the P-55 replacement monitoring well. The actual location of the replacement well will be determined in the field based on accessibility and location of utilities.

An air-vac or hydro-vac system will be used to perform borehole clearance to a depth of at least 10 feet below ground surface (bgs) in order to verify that no utility lines or other obstructions are present at the proposed location.

The replacement monitoring well will be installed utilizing hollow stem augers. If the replacement monitoring well is more than 10 feet away from monitoring well P-55, the soil will be continuously sampled and logged by a qualified field scientist. The field scientist will note soil attributes such as color, particle size, consistency, moisture content, structure, plasticity, odor (if obvious), and organic content (if visible). The soil samples will be screened in the field using a photoionization detector (PID). Observations will be noted on the soil boring logs.

During drilling, two soil samples will be retained for volatile organic compound (VOC) analysis from (a) the zone of most elevated field headspace PID readings and (b) the bottom of the boring just above the water table. The soil samples will be sent to Accutest Laboratories in Marlborough, Massachusetts. A trip blank will be included in each cooler containing samples for VOC analysis.

1001 Highland Plaza Drive West, Suite 300 St. Louis, MO 63110 Phone: 314.429.0100 Fax: 314.429.0462



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Analytical data from the sampling will be independently reviewed and qualified by URS. A Level III validation will be performed on all data.

The replacement monitoring well will be constructed of 2-inch diameter Schedule 40 PVC casing, with a 15-foot section of 0.010-inch slotted PVC well screen. The placement of the well screen will be comparable to that of monitoring well P-55, with the top of screen placed at approximately 38 feet bgs (approximately elevation 406). The sand pack will consist of placed or native sand, and will extend approximately 2 feet above the top of the well screen. A minimum 2-foot thick bentonite seal will be placed above the sand pack. The remaining borehole annulus will then be grouted to the surface with a cement-bentonite grout. A surface completion, including a locking expandable cap and either a stick-up or flush-mount protector, will also be performed.

Once the replacement well installation is complete, the well will be developed in order to remove fines from the sand pack and screen. The well will be developed by pumping a minimum of five times the amount of any water introduced during installation plus five well volumes of water. During well development, water quality parameters, including pH, temperature and conductivity will be measured and recorded after each well volume is removed. Development will continue until the above parameters have stabilized over two consecutive well volumes and those well volumes are visually sediment-free.

The replacement monitoring well will be surveyed relative to the Illinois State Plane Coordinates (NAD 83), and the elevation will be determined using the 1988 USGS datum.

Once installation, development and surveying of the replacement monitoring well have been completed, a package containing the boring log, construction diagram, and well development datasheet will be assembled. This package will be submitted to the IEPA within 30 days of the date that installation of the replacement well is completed (per Condition IV.D.6 of the RCRA Part B Permit).

Sampling of the replacement monitoring well is expected to begin with the 4th quarter 2012 sampling event.

The current monitoring well P-55 will not be plugged and abandoned until sampling and verification of the new analytical data have been performed. A certification that plugging and abandonment was completed in accordance with the approved procedures will be submitted to the IEPA within 30 days of the date that the well is plugged and abandoned (per Condition IV.D.6 of the RCRA Part B Permit).



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If you have any questions concerning this information, please contact Kevin Dyer, SOPUS Principal Program Manager, at <u>kevin.dyer@shell.com</u> (618/288-7237), or me at <u>bob.billman@urs.com</u> (314/743-4108).

Sincerely,

Lobat B Gillman

Robert B. Billman Senior Project Manager

Enclosures: Figure 1

Cc: Kevin Dyer, SOPUS Eric Petersen, Phillips 66

