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Robert Moser, MD, Secretary

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Department of Health & Environment

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Sam Brownback, Governor

May 8, 2014

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AWMD/WRAP-KNRP

Brenda B. Epperson
Environmental Manager
MRP Properties Company, LLC
P.O. Box 696000
San Antonio, TX 78269-6000

**RE: Comments on the 2013 Annual Groundwater Monitoring Report**
**MRP Properties Company, LLC**
**Former Total Petroleum, Inc. Refinery**
**1400 South M Street, Arkansas City, Kansas**
**RCRA ID# KSD087418695**

RCRA
531068

Dear Ms. Epperson,

The Kansas Department of Health and Environment (KDHE) has reviewed the 2013 Annual Groundwater Monitoring Report dated February 28, 2014, submitted by MWH Americas, Inc. on behalf of MRP Properties Company, LLC. The report provides a review of the groundwater monitoring program and on-going corrective action at the Former Total Petroleum, Inc. refinery in Arkansas City. KDHE's comments on the report are listed below:

1. The reference to K.A.R. 28-31-1 in Section 1.3 on Page 1-2 is invalid. K.A.R. 28-31-1 has been revoked. Please revise Section 1.3 to state "....40 CFR 264.100, as incorporated by reference in K.A.R. 28-31-264, and the RCRA Permit...".

2. Section 2.6.2 on Page 2-5 incorrectly states that BTEX constituents detected in monitoring wells WN-7B, WN-8B, and MW-6 did not exceed any groundwater protection standard (GWPS) values. Table 3 shows detected benzene concentrations ranged from 6.5 µg/L to 200 µg/L which exceeds the GWPS of 5 µg/L. Please revise Section 2.6.2 to state that detected benzene concentrations in the above monitoring wells exceeded GWPS values.

3. The discussion of analytical results from the Upgradient Boundary monitoring wells in Section 2.6.5 on Page 2-8 states that low levels of several SVOCs and PAHs were detected in monitoring well RFI2-12C, but offers no explanation for contamination at this well which is near the property line and upgradient of all known groundwater contamination. Please offer a plausible explanation for the contamination detected in this well.

4. The discussion of the analytical results from the Walnut River Boundary monitoring wells in Section 2.6.5 on Page 2-8 does not mention that 1-methylnaphthalene and 2-methylnaphthalene were detected in monitoring well RFI2-1C above the GWPS. In addition, the discussion incorrectly states that there were no other exceedances of GWPS even though arsenic was detected in RFI2-7C at 16 µg/L and RFI2-8C at 14 µg/L which exceed the GWPS of 10 µg/L. The detection of arsenic above GWPS in these monitoring wells is of special concern because of their proximity to the Walnut River and direction of groundwater flow. Further assessment may be needed if arsenic concentrations remain at levels exceeding GWPS in monitoring wells RFI2-7C and RFI2-8C. Please revise Section 2.6.5 to note the GWPS exceedances in monitoring wells RFI2-1C, RFI2-7C, and RFI2-8C.

5. The first paragraph in Section 4.0 on Page 4-1 incorrectly states that there are currently two RCRA-permitted corrective action remedial systems operating at the facility. The third paragraph in this section refers to

performance of the LTU corrective action system which was discontinued in 2012. Please review and update Section 4.0.

6. Groundwater containment in the Waste Management Area (WMA) is achieved through pumping of nine groundwater recovery wells to create a reverse groundwater hydraulic gradient between the WMA and the Walnut River. Adequacy of the recovery system for groundwater containment is evaluated by monitoring of reverse groundwater gradients observed at four pairs of strategically placed monitoring wells. Based on the available data, KDHE has a high level of confidence in the current assessment of groundwater containment in the WMA.

   Groundwater containment for areas of the facility outside of the WMA is dependent upon a reverse groundwater hydraulic gradient created by a combination of groundwater pumping at the groundwater recovery wells in the WMA and groundwater pumping at ten product recovery wells in the northern section of the facility. Groundwater pumping rates at the product recovery wells are based on maximization of free product recovery with incidental groundwater recovery. Evaluation of groundwater containment in these areas is based on potentiometric surface contours created from static water level data obtained from interior monitoring wells and a limited number of monitoring wells near the river that are referred to as the Walnut River Boundary wells. To better understand groundwater/surface water relationship in proximity to the refinery site, particularly in the northern part of the facility, KDHE requests MRP to determine river elevation in relation to nearby groundwater elevation at three or four locations on the Walnut River immediately adjacent to the facility boundary. In case there is a need to assess temporal variations in river elevation in relation to nearby groundwater elevation, it would be important to devise an approach that will ensure reasonable comparability of the individual datasets. This information should supplement data from the upstream USGS river gauge at Arkansas City to determine whether the river is gaining or losing over time. These elevations can be used to better assess any reverse gradients between the aquifer and the river and increase the level of confidence in the adequacy of groundwater containment for groundwater north of the WMA. Depending on the results of this assessment, it may also be beneficial to consider installation of additional monitoring wells or piezometers at optimized locations.

Please respond to this comment letter by June 9, 2014 and submit revised pages as necessary. If you have any questions, please contact me by phone at (785)-291-3760 or e-mail me at (mvishnefske@kdheks.gov).

Sincerely,

Mark Vishnefske
Environmental Scientist III
Corrective Action & Geology Unit

cc: Jay Mednick – MWH Americas, Inc.
Brad Roberts – EPA Region 7/AWMD/WRAP
Allison Herring – DEA/SCDO/Waste Programs
Bill Bider – KDHE/BWM