GWOU ADMINISTRATIVE RECORD
SECTION TITLE:
GW-500-501-1.27

919381

STATE OF MISSOURI
Bob Holden, Governor • Stephen M. Mahfood, Director
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176 Jefferson City, MO 65102-0176

May 31, 2002

Ms. Pamela Thompson, Project Manager
Weldon Spring Site Remedial Action Project
7295 Highway 94 South
Weldon Spring, MO 63304

RE: COMPLETION REPORT FOR THE ADDITIONAL GROUNDWATER FIELD STUDIES IN SUPPORT OF THE GROUNDWATER OPERABLE UNIT, March 2002, Rev. A

Dear Ms. Thompson:

This office has completed review of the referenced document and are transmitting our comments with this letter. We received this completion report on April 1, 2002. The enclosed comments include one general comment pertaining to the figures throughout the document and other comments that relate directly to conclusions presented in the report.. Our review of this document found little evidence presented to support many of the conclusions and some conclusion that might be better explained by other means. Please review our comments and revise the report to limit it to conclusions that can be technically supported. If you have any questions about these comments, please contact Branden Doster at (573) 526-2739 or me at (636) 441-8030.

Sincerely,
HAZARDOUS WASTE PROGRAM

Ben Moore

c: Dan Wall, United States Environmental Protection Agency

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Specific Comments

on

COMPLETION REPORT FOR THE ADDITIONAL GROUNDWATER FIELD STUDIES IN SUPPORT OF THE GROUNDWATER OPERABLE UNIT, March 2002, Rev. A

May, 2002

Figure 3-2, page 16

Figure 3-2 and other figures throughout the text do not show the presence of a groundwater divide to the south of the chemical plant site. Please discuss how the installation of the additional wells has provided a better understanding of the groundwater divide location or the possibility of a shifting groundwater divide due to raffinate pit dewatering and remediation.

Section 8. CONCLUSIONS

Please expand paragraph two to explain and support the conclusion that "these studies demonstrated the difficulty of utilizing artificial recharge effectively...". A point by point discussion of supporting evidence for this conclusion must be included.

Also in paragraph two, please explain the importance of minimizing aquifer dewatering.

In paragraph three reference is made to an upward trend of contaminant concentrations in certain monitoring wells. Please expand this paragraph to explain the decrease in concentrations observed during certain stages of the study.

This paragraph somewhat contradicts Section 5.3.2, Springs, by indicating that increasing trends were observed in SP-6301 and SP-6303 when Section 5.3.2 states that concentrations were relatively unchanged. Please explain this discrepancy.

Are the increases measured in the monitoring wells and springs related to the study or to natural variation? A list of other possible causes for these increases would be more helpful to the reader than an assumption of a single definite cause.

Conclusions in paragraph six are presented without supporting evidence. A detailed discussion should be included to present the possible mechanisms that may have caused the resulting rebound conditions. The report's explanation that the quick rebound is caused by the relatively rapid transfer of chemicals from primary to secondary porosity does not appear to be supported by the study or this completion report in any way. It seems more likely that the rebound was caused by contaminants contained in the secondary porosity features adjacent to the study area. Other factors, including a relatively short study period compared to the mass of contaminant contained in the aquifer could also contribute to rebound.