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Certified Mail - Return Receipt Requested

September 28, 2021

John Moore
Environmental Superintendent
Western Refining, Southwest Inc., Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

**RE: APPROVAL WITH MODIFICATIONS
RESPONSE TO DISAPPROVAL, NATURAL ATTENUATION ASSESSMENT AND PROPOSED
WORKPLAN FOR THE HYDROCARBON SEEP AREA
FRENCH DRAIN SOIL SAMPLING INVESTIGATION WORK PLAN
WESTERN REFINING SOUTHWEST INC., GALLUP REFINERY
MCKINLEY COUNTY, GALLUP, NEW MEXICO
EPA ID # NMD000333211
HWB-WRG-20-023**

Dear Mr. Moore:

The New Mexico Environment Department (NMED) has completed its review of the *Response to Disapproval, Natural Attenuation Assessment and Proposed Workplan for the Hydrocarbon Seep Area French Drain Soil Sampling Investigation Work Plan* (Response), dated August 27, 2021 and received September 7, 2021, submitted on behalf of Marathon Petroleum Company dba Western Refining Southwest Inc., Gallup Refinery (the Permittee). NMED hereby issues this Approval with Modifications with the following comments.

Comment 1

There is a typographical error in the title of the Response. NMED received the document titled *Proposed Work Plan for the Hydrocarbon Seep Area French Drain Soil Sampling Investigation Work Plan* as a separate submittal on December 16, 2020. Remove the reference from future correspondence. No revision required.

Comment 2

In the response to NMED's Disapproval Comment 1, the Permittee states, "[t]he wells evaluated and the data are provided in a new Table 1 and shown on Figure 1." There appears to be a typographical error in the statement since Table 1 (MKTF Wells CVOCs and MNA analytical

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Data 2018-2020) does not include the MTBE analytical data. NMED's Disapproval Comment 1 requires the Permittee to evaluate the potential for MTBE degradation and to summarize that information in the data tables. Table 1 must be revised to include the MTBE analytical data. Provide a revised Table 1. Furthermore, Figure 1 (Hydrocarbon Seep Area and MNA Well Set) depicts wells where vinyl chloride has consistently been detected; however, it does not identify the wells that are subject to monitoring the degradation of MTBE or other chlorinated compounds. Figure 1 must be revised to identify the wells that are subject to monitoring MTBE and all chlorinated compounds. Based on the information presented in Attachments A (CVOc Time Series Plots) and B (MTBE Time Series Plots), the wells that are subject to monitoring chlorinated compounds and MTBE are identified as wells MKTF-02, -09, -10, -16, -22, -24, and -25, and MKTF-04, -09, -16, -17, -19, -20, -21, -22, -23, -24, and -25, respectively. Provide a revised Figure 1 that depicts the wells that are subject to monitoring chlorinated compounds and MTBE.

Comment 3

In the response to NMED's Disapproval Comment 5, the Permittee states, "Figure 1 has been revised to show those wells with consistent detection of vinyl chloride. Time trend plots of vinyl chloride are also provided for these wells in Attachment A." Figure 1 indicates that vinyl chloride has consistently been detected in the groundwater samples collected from wells MKTF-02, -10, -24, and -25. The plots included in Attachment A indicate that the vinyl chloride concentrations in the groundwater samples collected from well MKTF-24 are increasing while the cis-1,2-dichloroethene concentrations in the groundwater collected from the same well are proportionally decreasing. The increasing trend of vinyl chloride and the decreasing trend of cis-1,2-dichloroethene may indicate that an accumulation of vinyl chloride is occurring. Vinyl chloride has the most stringent screening level and is the most toxic among the chlorinated compounds detected at the site. The current anaerobic/reducing conditions of the site does not allow vinyl chloride to be naturally attenuated. Submit a work plan that proposes actions to eliminate vinyl chloride in the vicinity of well MKTF-24; otherwise, discuss the benefits of continuing monitoring vinyl chloride and evaluating the potential for natural attenuation at the site in the response letter.

Comment 4

In the response to NMED's Disapproval Comment 6, the Permittee states, "[a] trend analysis has been provided in Attachment A and discussed in "Evaluation for CVOcs" on page 7." According to the time trend plots included in Attachment A, the concentrations of most chlorinated compounds are presumably indicated as "not detected" (e.g., vinyl chloride in well MKTF-16) because the limit of detection (LOD) values for chlorinated compounds were elevated due to the required dilution for hydrocarbon constituents (e.g., benzene in well MKTF-16). When elevated hydrocarbon constituent concentrations are present, this interference prevents the accurate assessment of the natural attenuation potential. Discuss the possibility of using separate analytical methods where the dilution of the hydrocarbon constituents is unnecessary

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and chlorinated compounds can be quantified with a greater sensitivity (e.g., gas chromatography with an electron capture detector) in the response letter.

Comment 5

In the response to NMED's Disapproval Comment 10, the Permittee states, "Table 1 has been updated to provide all available MNA data for CVOC and MTBE. Table 2 provides the MNA criteria put forth by EPA. Table 3 summarizes the score for the applicable refinery wells and uses the EPA guidelines to characterize the evidence for MNA as either inadequate, limited, adequate, or strong." Table 1 lists several water quality parameters; however, it is not clear which parameters are pertinent to the evaluation of MTBE natural attenuation. Provide an explanation in the response letter. In addition, Tables 2 and 3 evaluate evidence of potential natural attenuation for chlorinated compounds; however, these tables do not include the evaluation for MTBE. NMED's Disapproval Comment 10 states, "[t]his [natural attenuation] evaluation must focus on the fate of chlorinated compounds and MTBE." Provide additional tables, similar to Tables 2 and 3, to evaluate the potential of natural attenuation for MTBE at the site.

The Permittee must address all of these comments in this Approval with Modifications and submit a response letter, the replacement tables, and the revised figure no later than **December 31, 2021**.

This approval is based on the information presented in the document as it relates to the objectives of the work identified by NMED at the time of review. Approval of this document does not constitute agreement with all information or every statement presented in the document.

If you have questions regarding this letter, please contact Michiya Suzuki of my staff at 505-690-6930.

Sincerely,



Dave Cobrain
Program Manager
Hazardous Waste Bureau

cc: L. Tsinnajinnie, NMED HWB
M. Suzuki, NMED HWB
T. McDill, EMNRD OCD
L. King, EPA Region 6 (6LCRRC)

File: Reading File and WRG 2021 file