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**Certified Mail - Return Receipt Requested**

December 12, 2022

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

**RE: APPROVAL WITH MODIFICATIONS  
REVISED INVESTIGATION WORK PLAN NO. 2 AREA OF CONCERN 35  
WESTERN REFINING SOUTHWEST INC., GALLUP REFINERY  
MCKINLEY COUNTY, GALLUP, NEW MEXICO  
EPA ID# NMD000333211  
HWB-WRG-20-009**

Dear Mr. Moore:

The New Mexico Environment Department (NMED) has received Western Refining Southwest LLC (D/B/A Marathon Gallup Refinery's (the Permittee) *Response to Disapproval, Revised Investigation Work Plan No. 2 Area of Concern 35* (Revised Work Plan) dated March 30, 2022, in response to NMED's *Disapproval Revised Investigation Work Plan No. 2 Area of Concern 35* letter dated October 20, 2021 (Disapproval). NMED has reviewed the Revised Work Plan, and hereby issues this Approval with Modifications with the following comments.

**Comment 1**

The list of acronyms has been significantly reduced from previous versions of the Work Plan and now omits several acronyms which are used in the current Work Plan. For example, the acronyms %RE (reference emitter) and TPH (total petroleum hydrocarbons) are used in the response to comments and the acronym FWT (fluorescent water tracer?) is used in the Work Plan. These are not included in the List of Acronyms provided on page 4 of the Work Plan. The Permittee must provide replacement pages that contain a complete list of the acronyms used in the in the Work.

**Comment 2**

Executive Summary, last sentence of the fourth paragraph states "[a]n investigation report regarding all the LIF [laser-induced fluorescence] /HP [hydraulic profiling] investigation data is

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currently scheduled to be submitted no later than October 31, 2021.” This report has already been submitted to NMED, revise the text accordingly and provide a replacement page.

### **Comment 3**

The red-line strikeout version of the revised Work Plan provided in Appendix B, Redline Text, is not a true red-line. There are multiple instances where changes have been made to the revised Work Plan which are not noted in the red line text. A few examples of changes which are not noted in the red-line are:

- a. The cover page does not indicate the change to a new date of WP in red-line.
- b. Appendix A is new to the March 2022 revised Work Plan, yet not noted in red-line in the Table of Contents as a change.
- c. The text in Section 2.6, October 2019 Underground Transfer Line Release and Laser-Induced Fluorescence Investigation, has been substantially changed, this is not indicated in the red-line.

The Permittee must provide an accurate red-line reflecting all changes made to the revised Work Plan as a replacement for Appendix B.

### **Comment 4**

In response to the requested information in Disapproval Comment 1, the Permittee provided the information for three of the four items. The response did not provide the information for item number three; “...the products historically stored in the tanks that are currently detected as contaminants of concern (e.g., 1, 2-dichloroethane?).” The Permittee must provide the information regarding products historically stored in the tanks and provide replacement page(s) for the approved Work Plan as necessary.

### **Comment 5**

NMED Disapproval Comment 2 states “Since the isoconcentration contour lines for the constituents (benzene and MTBE [methyl tert-butyl ether]) are not presented on the figures, the distribution of the constituents before and after the October 2019 gasoline release is not clearly depicted on the figures. Revise the figures to include the estimated isoconcentration contour lines for the constituents. In addition, the distribution of total petroleum hydrocarbons (TPH) before and after the release may also help demonstrate how the plumes have migrated and expanded. Include figures that present the distribution of TPH in the revised Work Plan.” The Permittee’s response states “...moving forward, the current depiction of concentrations in the area is more crucial in driving future investigation and remediation efforts. Therefore, the figures depicting concentrations before the 2019 gasoline release have been removed and all of the figures have been updated to depict the current status of constituent concentrations...” and “Given the interpretive inference required for creation of isoconcentration lines, especially in complex geologic formations, isoconcentration lines are not included at this time.” The Permittee must include figures that depict the pre-October 2019 release constituent concentrations, including TPH, in the associated report to facilitate the comparison of the pre-

release data to the newly collected data. The figures must list the concentrations detected in each of the samples for each sample location.

**Comment 6**

Figure 4, Benzene Concentration Map (2021), Figure 5, MTBE Concentration Map (2021), and Figure 6 TPH Concentration Map (2021) of the Work Plan do not indicate specifically when the data represented on the figure were collected. At a minimum, the month(s) and year that the data was collected must be provided on the figures. The Permittee must revise the figure titles to identify the data presented as accurately as possible and provide replacement pages as necessary.

**Comment 7**

In response to Disapproval Comment 2 the Permittee states "...all of the figures have been updated to depict the current status of constituent concentrations and presence of separate phase hydrocarbons (SPH) based on the most recent (and validated) 2021 fluid level and groundwater sampling results." Figure 6b for SPH Thickness is not included the Work Plan, SPH thickness is relevant to the proposed investigation activities. The Permittee must include an updated Figure 6b and provide replacement pages as necessary. See Comment 6 above.

**Comment 8**

NMED Disapproval Comment 3 states "In Section 2.5 (Historical AOC 35 Investigations), page 10 of 18, paragraph 1, the Permittee states, "[t]he Refinery is indefinitely idled at this time and the sewer is currently not in operation and blocked off." Since the sewer line is known to be leaking, the Permittee must repair or replace the sewer lines, where applicable, prior to resuming the refining operations. No revisions are required." The Permittee's response states "The refinery has repaired and replaced portions of the process sewer line in the vicinity of AOC 35 since the 2013 dye tests were conducted. To expand upon the current state of the process sewer lines in the vicinity of AOC 35, a limited scope investigation is tentatively proposed; a work plan containing additional background information, figures, and associated text regarding the process sewer lines will be submitted to NMED... Section 2.5 now references the proposed process sewer investigation." NMED requests that the investigation for the process sewer be removed from the AOC-35 Work Plan. The Permittee must provide replacement pages which account for the removal of the process sewer investigation. The Permittee must provide NMED with a separate work plan focused solely on the process sewer no later than **May 31, 2023**.

**Comment 9**

NMED Disapproval Comments 5, 7, 10, 11, 12, and 14 state that the locations of and depths of specific proposed borings must be changed to determine the vertical and horizontal extent of contamination. The Permittee's response to NMED Disapproval Comment 5 states "[t]he intention of the proposed investigation is to correlate the %RE signals in soil, for the various identified product types/comingled plumes, with the analytical concentration for facility constituents of concern. Vertical delineation via soil sampling would not help accomplish the

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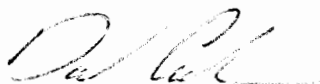
investigation objectives..." and "[i]t is proposed to continue with the investigation as originally intended by collecting soil samples from depth intervals with various, corresponding, LIF %RE results." Further, in response to NMED Comment 14 the Permittee states "[t]he goal [of this investigation] is to be able to correlate the LIF %RE with the analytical results so that the previously completed LIF investigation work can help to inform on possible constituent concentrations throughout the area." NMED acknowledges that the purpose of this investigation is not to delineate the vertical and horizontal extent of contamination, however the vertical and horizontal delineation of contamination related to AOC-35 must be addressed in future work plans.

The Permittee must address all comments in this Approval with Modifications and submit the required response letter and replacement pages to NMED no later than **March 15, 2023**.

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 Lane Andress of my staff at 505-690-5286.

Sincerely,



Dave Cobrain  
Program Manager  
Hazardous Waste Bureau

cc: L. Tsinnajinnie, NMED HWB  
L. Andress, NMED HWB  
H. Jones, Trihydro  
L. King, EPA Region 6 (6LCRRC)

File: Reading File and WRG 2022 file