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Certified Mail - Return Receipt Requested

March 22, 2023

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

**RE: APPROVAL WITH MODIFICATIONS
AREA OF CONCERN 26 - PROCESS UNITS AND AREA OF CONCERN 27 -
BOILER AND COOLING UNIT AREA INVESTIGATION WORK PLAN
WESTERN REFINING SOUTHWEST LLC, GALLUP REFINERY
MCKINLEY COUNTY, GALLUP, NEW MEXICO
EPA ID# NMD000333211
HWB-WRG-21-022**

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, Area of Concern 26 - Process Units and Area Of Concern 27 - Boiler And Cooling Unit Area Investigation Work Plan* (Revised Work Plan) dated June 10, 2022, in response to NMED's *Disapproval Area of Concern 26 -Process Units and Area of Concern 27 -Boiler and Cooling Unit Area Investigation Work Plan* letter dated March 18, 2022 (Disapproval). NMED has reviewed the Revised Work Plan, and hereby issues this Approval with Modifications with the following comments.

Comment 1

The Permittee's response to Disapproval Comment 6, the Permittee states "Section 4.1, paragraph 2 has been revised to state, "[photoionization detector] PID readings will be collected at 5-[foot] ft intervals, beginning with a surface sample (taken at 6 to 12 inches [below ground surface] bgs)." In Section 4.1 (Sample Collection Procedures), last paragraph, Item 2, the Permittee states "Collect PID readings at the surface and then every 5 ft", the text "(taken at 6 to 12 inches bgs)" was not added to the text of the Report. Revise the text accordingly and provide a replacement page.

Comment 2

The Permittee's response to Disapproval Comment 8 states "The PID should be checked to ensure that the PID has the appropriate lamp strength for the investigation. The most common

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lamp used in a PID is a 10.6 electron volt (eV) lamp, which will ionize compounds with ionization potentials from 8.0 eV to 10.6 eV. The range of 8.0 eV to 10.6 eV is representative of gasoline- and diesel-type constituents. For example, benzene, naphthalene, and toluene have ionization potentials of 9.25 eV, 8.13 eV, and 8.82 eV, respectively... A list of ionization potentials for a variety of compounds has been published by RAE systems, the manufacturer of the PID most used by Trihydro.” PIDs with higher lamp strengths (i.e., 10.6 eV) are more likely to foul during use due to moisture and dust in the soils sampled, resulting in inaccurate PID readings. The Permittee must use a 9.5 eV lamp to ensure more accurate PID readings. Revise the text accordingly and provide a replacement page.

Comment 3

The Permittee’s response to Disapproval Comment 9 states “Section 4.0, page 2, bullet 2 of Appendix B [Standard Operating Procedure – Soil Sampling] has been revised to state, “Soil sampling devices (e.g., hand auger, hand shovel, drill rig, etc.)” This bullet is not meant to be an exhaustive list, and other soil sampling devices may be used if deemed appropriate.” The Permittee must refrain from using generalized SOP’s in work plans. The SOP provided in Appendix B does not provide details specific to the work plan. In this case, collecting soil samples from a Geoprobe® direct push drill core sleeve is not described. However, other soil sampling techniques not relevant to the work plan are included, such as using a “drive sampler equipped with clean brass or stainless steel sampling rings”.

Revise Section 4.0 to describe the sample collection methods for this scope of work and provide replacement pages as necessary. In future work plans, the Permittee must state exactly what they plan to do in the text of the work plan, rather than refer to general SOP’s, in accordance with RCRA Permit Section IV.J.1 (Standard Operating Procedures).

Comment 4

The Permittee’s response to Disapproval Comment 10, the Permittee states “The text in the Work Plan, Section 4.1 (Sample Collection Procedures), page 7 of 10, paragraph 2, has been revised to state, “PID readings will be collected at 5-ft intervals, beginning with a surface sample (taken at 6 to 12 inches bgs). At each 5-ft interval, the sample will be collected from the sampling equipment and split into two aliquots. Aliquot #1 will be placed into a plastic bag and used for PID screening. Aliquot #2 will be placed into a second plastic bag, sealed, placed in a cooler, and stored on ice for potential VOC laboratory analysis. Aliquot #1 materials will not be submitted for laboratory analysis.” The clarification provided is adequate. However, Aliquot #2 must be placed in the appropriate sample container(s) with appropriate preservative(s), if applicable, pending selection for laboratory analysis to ensure minimal loss of petroleum hydrocarbons from volatilization (e.g., extracted into an En Core® soil sampling device). Revise the text accordingly and provide a replacement page.

Comment 5

Appendix B (Standard Operating Procedure – Soil Sampling), Section 5.0 (Sample Collection), second paragraph, page 1, states “Soil samples located in dry areas will be collected from representative locations using a decontaminated drive sampler equipped with clean brass or stainless steel sampling rings, a thin-walled tube sampler, or a shovel or hand trowel. The sampling device will be driven completely into the material manually or using a manually operated auger, drive hammer, or mallet. The sampling device will then be extracted from the material using a shovel or trowel as needed. If used, filled sampling rings or the thin-walled tube will then be removed from the sampling device and immediately sealed on both ends with teflon sheeting and plastic caps. Otherwise, the material will be placed directly from the trowel or other appropriate sampling device into a clean glass jar. The jar will be filled completely to minimize headspace (by tamping during filling), and immediately sealed with a teflon-lined lid.”

The Permittee must revise Section 4.0 to provide sample collection details specific to this scope of work and provide replacement pages as necessary. In future work plans, the Permittee must state exactly what they plan to do in the text of the work plan, and not refer to general SOP’s. See Comment 3 above.

Comment 6

Appendix B (Standard Operating Procedure – Soil Sampling), Section 5.0 (Sample Collection), third paragraph, page 3, states “If necessary, several cores may be collected from each location to provide adequate sample volume for the laboratory.”

The Permittee must revise Section 4.0 to describe how close the additional cores and resulting samples will be from each other both horizontally and vertically. The Permittee must also state if the samples sent for analysis will be collected as composite samples as a result of this process. Provide replacement pages as necessary. In future work plans, the Permittee must describe specific sample collection procedures in the text of the work plan, and not rely on general SOP’s. See Comment 3 above.

Comment 7

Appendix B (Standard Operating Procedure – Soil Sampling), Section 5.0 (Sample Collection), page 3, fourth paragraph states “Aliquot #2 will be placed into a second plastic bag, sealed, placed in a cooler, and stored on ice for potential laboratory analysis.” Aliquot #2 must be placed in the appropriate sample container(s) with appropriate preservative(s), if applicable, pending selection for laboratory analysis to ensure minimal loss of petroleum hydrocarbon contamination through volatilization (e.g., extracted into an En Core® soil sampling device). See Comment 4 above.

Mr. Moore
March 22, 2023
Page 4

Comment 8

Appendix B (Standard Operating Procedure – Soil Sampling), Section 5.0 (Sample Collection), page 4, first paragraph states “Sampling devices will be decontaminated between sampling locations...”

Revise Section 4.0 to clarify if sampling devices will be decontaminated between sample intervals (i.e., sample depth) within the same sampling location (i.e., boring location). Provide replacement pages as necessary. In future work plans, the Permittee must describe specific sample collection procedures in the text of the work plan, and not rely on general SOP’s. See Comment 3 above.

Comment 9

In Table 2 (Proposed Soil and LNAPL Sample Constituent List) the Permittee lists constituents for LNAPL analysis. Add Selenium to the list of LNAPL analyses and provide a replacement table.

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 **July 1, 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)

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