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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

May 12, 2010

Mr. Ed Riege
Environmental Manager
Western Refining, Southwest Inc., Gallup Refinery
Route 3, Box 7
Gallup, New Mexico 87301

**RE: NOTICE OF DISAPPROVAL
RAILROAD RACK LAGOON OVERFLOW DITCH AND FAN-OUT AREA,
SWMU No. 8 SUBSURFACE INVESTIGATION FINAL REPORT
WESTERN REFINING COMPANY SOUTHWEST, INC., GALLUP REFINERY
EPA ID # NMD000333211
HWB-WRG-10-002**

Dear Mr. Riege:

The New Mexico Environment Department (NMED) reviewed the *Railroad Rack Lagoon Overflow Ditch and Fan-Out Area, SWMU No. 8, Subsurface Investigation Final Report* (Report), dated January 2010, submitted on behalf of Western Refining Company Southwest Inc., Gallup Refinery (Permittee) and hereby issues this Notice of Disapproval (NOD) with the following comments.

Comment 1

NMED's December 11, 2009 *Approval with Modifications*, required the Permittee to define the vertical and horizontal extent of contamination at the overflow and fan-out area. From the Report, it is not clear that the Permittee completed the task to define the vertical extent of contamination. Table 1 (DRO Analytical Data Summary) lists results that are above the Total Petroleum Hydrocarbon (TPH) Diesel Range Organics (DRO) cleanup level of 890 mg/kg. Figure 5 (Railroad Rack Lagoon Overflow Ditch B-8 Excavation Areas and DRO Results)

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presents sample results and areas that were excavated. but it does not appear that confirmation samples were collected at the bottom of the excavation. The excavation bottom samples were required by NMED's March 14, 2009 letter *Approval with Direction* which stated "[i]f the excavation does not exceed three feet below ground surface (bgs), the Permittee may collect confirmation samples from the bottom of the excavations only. If the excavation exceeds three feet bgs, then confirmation samples must be collected from all sidewalls of the excavations in addition to from the base of the excavations." The Permittee did not follow this directive, for example, in Area 3, which was excavated to seven feet; confirmation samples were not collected from the base of this excavation. In Area 4, which was excavated to 13 feet, the Permittee collected six samples around the perimeter of the excavation at a depth of 13 feet and only three samples were collected from the base of the excavation. At one point (A (B8-NEW-SE)) there is an increase in DRO concentration with depth and apparently no sample collected to demonstrate that the DRO-contaminated soil was removed.

In order to determine whether or not the removal of all soils containing concentrations of DRO above 890 mg/kg from the fan-out area was completed, the Permittee needed to collect samples from the base and sidewalls of the excavation. Therefore, confirmation samples must be collected at the excavation bottom and from the sidewalls using a systematic sampling pattern and samples must also be collected from areas of visible staining, elevated moisture levels, and contaminated zones identified by field-screening and beneath areas with detected residual contamination. Until the Permittee defines the extent of the contamination, NMED cannot determine if further remediation is necessary. The Permittee must conduct additional confirmation sampling and, if necessary, conduct additional excavation activities if the confirmation samples contain DRO concentrations greater than the acceptable cleanup level. In the revised Report, the Permittee must submit a figure depicting the locations of the final confirmation sample locations, depths the samples were taken, and the analytical results. The Permittee must submit proposed confirmation sample locations for NMED approval no less than 30 days before confirmation sampling activities begin.

Comment 2

In Section 3.2 (Excavation Activities), page 3-2, paragraph 3, the Permittee states "[c]onfirmation sample locations were strategically located to supplement the existing DRO data." The Permittee must include more detail regarding the confirmation sampling (i.e., provide the rationale for the "strategic" location of the confirmation samples). The Permittee must revise the Report to include specific details regarding the confirmation sampling locations and the logic behind the selection of the sampling locations.

Comment 3

In Section 3.2 (Excavation Activities), page 3-2, paragraph 3, the Permittee states "[d]ue to

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confirmation sample DRO exceedences, the size of the excavation, as proposed in the 2008 Excavation Work Plan, was increased ... Excavation activities continued through October 2009 due to additional confirmation sample exceedences and visually impacted soil." The Permittee must revise the Report to include additional detail regarding the excavation. For example, the Permittee must state, or include a figure with, the locations where the exceedences were found (e.g., sample location, depth, cardinal direction), discuss the amount of soil removed during each of the excavations, and describe confirmation sampling.

Comment 4

In Section 3.2 (Excavation Activities), page 3-2 and 3-3, the Permittee states "Test Pit B-8 confirmation sample locations and results are illustrated in Figure 5. Area 1 was excavated to depth of 3 feet below ground surface (ft bgs), and excavation activities in this area were overseen by Trihydro. Area 2 was excavated to a depth of 5 ft bgs by Gallup personnel. Area 3 and 4 excavations were overseen by a combination of Trihydro and Gallup personnel and extended to 7 and 13 ft bgs." The Permittee must revise the Report to discuss the basis for excavation to the various depths (e.g., the confirmation sample detections that indicated the need for additional soil removal). The Permittee must revise Figure 5 or provide an additional figure to show the final confirmation sample locations, see Comment 1.

Comment 5

In Section 4.3.1.1 (Delineation Sample Locations), page 4-2, paragraph 2, the Permittee states "[t]he sampling locations in these three delineation sampling events (May, August, and December 2007) were determined based on exceedences identified during the preceding sampling events. These locations are illustrated on Figures 5 and 6." The Permittee must list these sampling locations by name in the text, so that the locations can be identified in the figures. Additionally, Figure 5 appears to illustrate the locations of multiple sampling events beyond the three delineation events mentioned above. The Permittee must revise the Report to refer to specific sampling locations, instead of referring to the locations generally.

Comment 6

In Section 4.3.2.1 (Confirmation Sample Locations), page 4-4, paragraph 1, the Permittee states "[a] total of ten sidewall and base confirmation sample locations were proposed in the 2008 Excavation Work Plan. Three additional locations were added at the suggestion of NMED in the December 11, 2008 Approval with Direction letter provided as Appendix F. These 13 locations were strategically located in areas where DRO delineation data was limited in an attempt to fill potential data gaps. Of the 13 approved confirmation sampling locations, 3 exceeded the DRO cleanup standard prompting expansion of the excavation." The Permittee must revise the Report to be specific regarding the sample location names (e.g., instead of stating "of the 13 approved

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sampling locations, 3 exceeded," list the specific location designations).

Comment 7

In Section 4.4 (Investigation Derived Waste), page 4-5, the Permittee states "[e]xcavated soils and soil cuttings produced during the sampling events have been transported to Gallup's Land Farm as permitted by OCD." The Permittee must revise the Report to describe the estimated volume of soil cuttings and excavated soil that were disposed of at the Land Farm.

Comment 8

In Section 6.1 (Test Pit B-9), the Permittee states "samples collected from each corner of the excavation at depths of 3 ft bgs and the center of the excavation at a depth of 5 ft bgs showed DRO concentrations below the clean up standard." The sample points are illustrated in Figure 6 (Railroad Rack Lagoon Overflow Ditch B-9 Final Excavation Area and Sample Results); the Permittee excavated the ditch to 5 feet, but in the figure it is not apparent that the 3 ft samples are sidewall samples. The Permittee must revise the Report and Figures to differentiate between sidewall and bottom confirmation samples (e.g., use different symbols or colors on the figures, provide additional figures or in a table cross-referenced in the figure key).

Comment 9

In Section 6.2 (Test Pit B-8), the Permittee states "[a]s illustrated on Figure 5, between delineation and confirmation sampling activities, a total of 67 soil samples showing DRO concentrations below the cleanup standard have been excavated from the vicinity of Test Pit B-8. A summary of the analytical data is provided as Table 1." Figure 5 and Table 1 appear to show either residual contamination, or that the Permittee did not collect confirmation samples from the base of the excavation. See Comment 1 regarding Figure 5, Table 1 and additional confirmation sampling requirements.

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The Permittee must address all comments contained in this NOD and submit a revised Work Plan to NMED and OCD on or before July 20, 2010. The revised Report must be accompanied by a response letter that details where all revisions have been made, cross-referencing NMED's numbered comments. In addition, the Permittees must submit a redline-strikeout version that includes all changes and edits to the Report (electronic copy) with the response to this NOD.

If you have questions regarding this NOD please contact Kristen Van Horn of my staff at 505-476-6046.

Sincerely,



James P. Bearzi
Chief
Hazardous Waste Bureau

cc: J. Kieling, NMED HWB
D. Cobrain NMED HWB
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