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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

JUL - 2 2020

Gregory J. McCartney
Western Refining Southwest, Inc.
Bloomfield Terminal
#50 County Road 4490
Bloomfield, New Mexico 87413

RE: APPROVAL WITH MODIFICATIONS
BLOOMFIELD TERMINAL (FORMER BLOOMFIELD REFINERY) RIVER TERRACE ANNUAL
REPORT VOLUNTARY BIOVENTING/AIR SPARGING SYSTEM (JANUARY – DECEMBER
2019)
WESTERN REFINING SOUTHWEST, INC. - BLOOMFIELD TERMINAL
EPA ID# NMD089416416
HWB-WRB-20-001

Dear Mr. McCartney:

The New Mexico Environment Department (NMED) has received Western Refining Southwest, Inc., dba Marathon Petroleum Company Bloomfield Terminal's (Western's) *Bloomfield Terminal (Former Bloomfield Refinery) River Terrace Annual Report Voluntary Bioventing/Air Sparging System (January – December 2019)* (Report), dated February 2020. NMED has reviewed the Report and hereby issues this Approval with Modifications with the following comments.

Western must address all comments in this Approval with Modifications and submit a response letter no later than **December 31, 2020**.

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.

Mr. McCartney
2019 RT Annual Report
Page 2

If you have questions regarding this letter, please contact Michiya Suzuki of my staff at 505-476-6046.

Sincerely,



Kevin Pierard
Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
M. Suzuki, NMED HWB
L. Tsinnajinnie, NMED HWB
C. Chavez, EMNRD OCD
K. Robinson, Western Refining Southwest, Inc., Bloomfield Terminal

File: Reading File and WRB 2020 File
HWB-WRB-20-001

Attachment

Comment 1

Western's Response to Comment 3 in NMED's *Approval with Modifications Bloomfield Terminal River Terrace Annual Report Voluntary Bioventing System/Air Sparging (January – December 2018)*, dated February 27, 2020 states, "[a]dditional site location information will be added." Although Figure 2 (Facility Site Plan) was updated to present designations for various site features, the font used to present the designations are too small and illegible. Provide a larger copy of the site plan figure in future reports and ensure the font size is legible.

Comment 2

Western's Response to Comment 8 states that "the [GAC] filter have not been replaced for at least 5 years. The carbon at these low inlet concentrations (less than 1 ppm hydrocarbons) is providing a final polish and should last indefinitely." According to Table 5 (GAC Filter Monitoring Data Summary), none of the dissolved phase hydrocarbon constituents in the samples collected from the effluent of lag granular activated carbon filter (GAC-LAG) were detectable. At this time, continue monitor the GAC influent and effluent concentrations without replacing the filters. However, it must be noted that GAC filters do not last indefinitely. Section 2 (Background), pages 8 and 10, indicates that the lead GAC filters were replaced in 2007 and 2012 due to contaminant breakthrough. The filters have not been replaced since 2012. The filters must be replaced as necessary. No response required.

Comment 3

Western's Response to Comment 10 states, "[t]he comment is acknowledged and we will review the data collected in 2020 to further assess any potential modifications [to address TPH-DRO exceedances] to the existing remediation system." Section 4.2 (Recommendation), page 20, paragraph 4, states, "[c]oncentrations in the extracted groundwater and at most of the monitoring wells remain relatively low, with xylenes, TPH-DRO, and TPH-GRO being the most persistent organic constituents. Western will continue to look for means of optimizing the air sparging system to increase remediation efficiency." These "most persistent organic constituents" (i.e., xylenes, TPH-DRO and TPH-GRO) may not be amenable to the existing remediation system. Discuss the potential means of optimizing the existing remediation system to address these constituents in a response letter.

Comment 4

Western's Response to Comment 12 states, "[t]he laboratory has requested a larger sample size in order to achieved [sic] a lower detection limit." The detection limits were still reported higher than the groundwater screening levels of total petroleum hydrocarbon gasoline range organics (TPH-GRO), diesel range organics (TPH-DRO), and oil range organics (TPH-MRO) according to Tables 3 and 5. The detection limits must be lower than the screening levels

because detection limits higher than the screening levels do not allow to evaluate the risk associated with the compounds. Solicit analytical laboratories capable of achieving the detection limits lower than the screening levels and resolve this recurring issue. Otherwise, address the concentrations where the detection limits are higher as a data gap and include the discussion in future reports. Western must also explain how removing these data will change the evaluation and conclusions of the Report.

Comment 5

In Section 3.1.1 (Fluid Level Measurements), page 13, paragraph 3, Western states, “[n]o separate phase hydrocarbon was detected in any of the wells.” According to Table 1 (Fluid Levels), depth-to-water readings and total well depths are reported in feet below top of casing (TOC) but screened intervals are reported in feet below ground surface (bgs). The data presented in Table 1 does not allow NMED to evaluate the appropriateness of the screened intervals for separate phase hydrocarbon (SPH) measurement. All data reported in feet below TOC must be converted to feet bgs in future reports for consistency. Conduct an elevation survey, if necessary.

Comment 6

In Section 3.1.2 (Groundwater Field Parameters), page 13, paragraph 4, Western states, “[d]ue to detections of concentrations of metals above screening levels in some samples and the concern the detections may be related to the well purging procedures using bailers, the 2019 sampling event was conducted using low-methods [sic] consistent with NMED guidance (NMED, 2001).” According to Table 2 (Groundwater Field Measurements) field parameter readings collected during 2019 appear to be within the variability of and consistent with past readings. NMED acknowledges that the 2019 sampling event using low-flow methods was appropriately conducted. No response required.

Comment 7

In Section 3.1.3 (Groundwater Sampling), page 14, paragraph 1, Western states, “[g]roundwater samples were submitted to Hall Environmental Analytical Laboratory and analyzed for the following constituents Volatile Organic Compounds – BTEX and MTBE by EPA Method 8260.” Appendix B (Analytical Reports) presents the analytical results of benzene, toluene, ethylbenzene and xylenes (BTEX) and methyl tert-butyl ether (MTBE) but does not present analytical results of other volatile organic compounds. Because some chlorinated compounds (e.g., 1,2-Dichloroethane) were detected in groundwater samples collected from the wells located south of the slurry barrier wall (e.g., MW-59 and MW-65), presence or absence of all volatile organic compounds listed in EPA Method 8260 must be evaluated for the groundwater samples collected from the River Terrace wells. Report analytical results for all volatile organic compounds listed in EPA Method 8260 in future reports. Include the provision

in the upcoming update of the Facility-Wide Groundwater Monitoring Plan. In the Monitoring Plan, propose to collect and analyze samples for 2 monitoring events. If after 2 monitoring events the constituents are not detected, then Western must propose to monitor for those constituents once every four years for the duration that the remediation system remains in operation.

Comment 8

In Section 3.2.1 (Pressure Readings), page 14, paragraph 3, Western states, “[p]ressure readings from BV-3, Air Sparging Line A, Air Sparging Line B, and the Main Air Blower exceeded the capabilities of the magnehelic gauge and were collected using a dial pressure gauge.” According to Table 4 (Soil Gas Monitoring Data Summary) the pressure readings from BV-3, Air Sparging Line A, Air Sparging Line B, and the Main Air Blower are reported as one pound (1 lb). The reporting unit (pound) does not represent a pressure unit. Correct the pressure unit in future reports and provide a replacement Table 4 with the correct units.

Comment 9

In Section 4.1.2 (Bioventing / Air Sparging Performance Monitoring), page 20, paragraph 4, Western states, “[t]he air pressure reading has decreased from 3 psi in 2018 to 1 psi in 2019.” Section 3.3.2 (Aeration System Monitoring), page 17, paragraph 2, states that “an air leak was repaired in December 2019 and the pressure was restored to 3.0 psig.” The fact that the pressure was restored to 3 psi must be mentioned in Section 4.1.2 for clarity. Revise future reports accordingly. Additionally, explain if the air leak may have caused false pressure readings between 2018 and 2019 in the response letter.