



Western Refining Southwest LLC

A subsidiary of Marathon Petroleum Corporation

I-40 Exit 39
Jamestown, NM 87347

May 17, 2021

Mr. Kevin Pierard, Chief
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505

**RE: Response to Comments Approval with Modifications
Investigation Report Solid Waste Management Unit No. 10 Sludge Pits
Marathon Petroleum Company LP, Gallup Refinery
(dba Western Refining Southwest LLC)
EPA ID# NMD000333211
HWB-WRG-16-001**

Dear Mr. Pierard:

Marathon Petroleum Company LP (dba Western Refining Southwest LLC) Gallup Refinery is submitting this *Response to Comments Approval with Modifications, Response to Disapproval Investigation Report Solid Waste Management Unit No. 10 Sludge Pits*, dated March 4, 2021. A timeline of the reports and investigations for the sludge pits is provided below.

- Investigation Work Plan, submitted September 16, 2014
- Approval with Modifications, received March 2, 2015
- Investigation Report, submitted March 4, 2016
- Withdrawal of Investigation Report, submitted June 10, 2016
- Revised Investigation Report, submitted December 20, 2016
- Disapproval, received June 14, 2018
- Response to Disapproval, submitted October 12, 2018
- Disapproval, received June 10, 2019
- Response to Disapproval, submitted August 30, 2019
- Approval with Modifications, received March 4, 2021

If there are any questions, please call Mr. John Moore at (505) 879-7643.

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

Marathon Petroleum Company LP, Gallup Refinery



Robert S. Hanks
Refinery General Manager

Enclosure

cc: D. Cobrain, NMED HWB
M. Suzuki, NMED HWB
T. McDill, NMOCD
G. McCartney, Marathon Petroleum Corporation
K. Luka, Marathon Petroleum Corporation
J. Moore, Marathon Gallup Refinery
H. Jones, Trihydro Corporation

Attachment A: Response to Comment

New Mexico Environment Department to Marathon Petroleum Company Comment Letter “Response to Approval with Modifications SWMU No. 10 Sludge Pits Investigation Work Plan” (March 4, 2021)

New Mexico Environment Department (NMED) Comment	Marathon Petroleum Company (MPC) Response
Comment 1:	Response 1:
<p>The response to NMED's Disapproval Comment 8 states, "the wastewater treatment system is capable of removing metals..." and "[h]eavier soils (e.g., metals) that do not float settle into sludge chamber located at the bottom of the unit [(Dissolved Air Flootation system)] where these metals are removed." Comment 6 in NMED's Disapproval, dated June 14, 2018, states, "[s]ince the concentrations of metals exceed the screening levels in many groundwater samples according to Table 8, the groundwater must not be disposed to the groundwater treatment system unless it is capable of removing metals." Table 8, SWMU 10 Groundwater Analytical Results Summary, indicates the dissolved arsenic, barium, iron, manganese, and nickel concentrations in the groundwater samples exceed the applicable screening levels. Some dissolved metals may be precipitated by slower oxidation process (e.g., arsenic). In a response letter, discuss whether the retention time for the Dissolved Air Flootation (DAF) system is properly designed to allow sufficient time for precipitation of dissolved metals or propose to collect influent and effluent samples in order to demonstrate that the system can effectively remove dissolved metals.</p>	<p>MPC owns and operates a dissolved gas flotation (DGF) clarifier at their existing wastewater treatment plant. DGF units are being utilized more to remove metals from industrial wastewaters. Dissolved metals can be precipitated out of the waste stream through the addition of coagulants and flocculants. MPC has utilized the addition of coagulants and flocculants since the commissioning of the DGF unit. These coagulants and flocculants are used to precipitate dissolved metals to increase the DGF's removal efficiency. A study on the effectiveness of dissolved metal removal was conducted on an acid mine drainage utilizing a DGF system prior to their National Pollutant Discharge Elimination System (NPDES) discharge (Foy et. al 2012). The results of the study resulted in iron, manganese, and aluminum removals greater than 86%. MPC will continue utilizing the DGF as part of the onsite wastewater treatment.</p> <p>Foy, B., Stover, E.L., Ross, C.C., & Valentine, G.E. (2012). Floating on air: Dissolved gas flotation in the industrial wastewater market. <i>Water & Wastes Digest</i>, 30-31. January.</p>

New Mexico Environment Department to Marathon Petroleum Company Comment Letter “Response to Approval with Modifications SWMU No. 10 Sludge Pits Investigation Work Plan” (March 4, 2021)

Comment 2:	Response 2:
<p>The response to NMED’s Disapproval Comment 9 references Comment 8 in the NMED’s August 10, 2018 Disapproval that states, “[t]he [NAPIS] repairs were satisfactory and NMED hereby approves the practice; however, the Permittee must continue to monitor all leak detection units (LDUs) in accordance with the monitoring schedule in the 2018 Facility Wide Ground Water Monitoring Work Plan, dated March 31, 2018 and further evaluate the effectiveness of the repairs in the future.” However, water continues to be detected in the East and West LDUs. Both the east and west bays appear to be leaking through the secondary containment wall. The repairs conducted in 2018 apparently did not resolve the issue associated with the leak.</p> <p>Comment 6 in the NMED’s Disapproval Annual Groundwater Monitoring Report Gallup Refinery — 2019, dated November 23, 2020, states, “[a]lthough some parts of the NAPIS were repaired in 2018, the NAPIS must be repaired or replaced. The Permittee previously informed NMED of a plan to upgrade the wastewater treatment system, including the NAPIS. However, it is not clear whether the plan will still be implemented or whether the NAPIS will be utilized under the current idling status. Clarify whether the NAPIS will still be upgraded or utilized in the future. Unless the NAPIS is upgraded as planned, repair the leaks from the NAPIS or propose to install recovery wells adjacent to the NAPIS where wastewater is leaking (e.g., downgradient of the East and West LDUs) to capture the fluids leaking from the NAPIS.” This comment must be addressed in the response to NMED’s Disapproval Annual Groundwater Monitoring Report Gallup Refinery — 2019. No revision required.</p>	<p>This comment is acknowledged.</p>

New Mexico Environment Department to Marathon Petroleum Company Comment Letter “Response to Approval with Modifications SWMU No. 10 Sludge Pits Investigation Work Plan” (March 4, 2021)

Comment 3:	Response 3:
<p>The response to NMED’s Disapproval Comment 10 states, “[w]e provided your comment to the laboratory (Hall Environmental) that conducts the subject chemical analyses. Their explanation is provided below and if this is not adequate, then possibly we could arrange a conference call to allow you to discuss this directly with the laboratory experts.” Note that it is the Permittee’s responsibility to explore resolution of the issue associated with high DRO dilution factors and provide defensible laboratory data in future reports. The reported MRO data (e.g., < 4,776 mg/mg) are not defensible and the reporting limits must be lower than applicable screening levels. In the response letter, discuss possible measures that analytical methods can be modified to lower MRO reporting limits when samples contain high DRO concentrations (e.g., using different columns/higher temperatures to report DRO/MRO separately).</p>	<p>MPC has reached out to several laboratories in regards to meeting screening levels with lower reporting limits. The current screening levels of 0.0167 mg/L for TPH DRO and 0.0858 mg/L for TPH MRO are not attainable by the laboratories that were contacted. In addition, Hall Environmental reached out to other laboratories to determine if they could meet the TPH DRO and TPH MRO screening levels and they indicated they could not meet the lower reporting limits either.</p> <p>The current limitation is that the method blank results are considered when calculating the reporting limit. In order to produce a lower reporting limit, more sample solution is used which in turn increases the blank concentration, thus resulting in a higher reporting limit.</p> <p>With current analytical methods and laboratory instrumentation the lowest reporting limit that Hall Environmental can meet is 0.0745 mg/L for TPH DRO and 0.6 mg/L for TPH MRO.</p>

New Mexico Environment Department to Marathon Petroleum Company Comment Letter “Response to Approval with Modifications SWMU No. 10 Sludge Pits Investigation Work Plan” (March 4, 2021)

Comment 4:	Response 4:
<p>"The response to NMED’s Disapproval Comment 13 states, “[b]ased on the addition of the new TPH screening levels, there are numerous exceedances of the TPH screening levels, as shown for soil in Table 7 and groundwater in Table 8.” Section 7.1, Conclusions states that the northern extent of TPH exceedances was not defined. Section 7.2, Recommendations states, “[a]n Investigation Work Plan for the SMW-2 and GWM-1 Areas was submitted in mid August 2019 and it includes a new monitoring well west of GWM-1, which will place the well a short distance north of SWMU No. 10 (DiSorbo, 2019). The collection of soil and groundwater samples from this location could provide additional information on the northern boundary of SWMU No. 10.” NMED agrees with the Permittee’s recommendation. NMED issued an Approval Response to Disapproval Investigation Work Plan SMW-2 and GWM-1 and approved an installation of the referenced well in July 1, 2020. NMED’s Approval required the SMW-2 and GWM-1 investigation report no later than July 31, 2021. The results of the SMW-2 and GWM-1 investigation may be incorporated as part of the SWMU 10 investigation; however, the discussion pertaining to the SWMU 10 investigation must not be included in the SMW-2 and GWM-1 investigation report; a separate report that focuses on the SWMU 10 investigation must be submitted no later than October 1, 2021."</p>	<p>The well installation referenced in the SMW-2 and GWM-1 Areas is scheduled to be completed by July 2021. MPC requests an extension of the SWM-2 and GWM-1 investigation report to September 30, 2021 rather than July 31, 2021. The Investigation Report for SWMU No. 10 will be completed and submitted no later than October 1, 2021.</p>

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720

District II
 811 S. First St., Artesia, NM 88210
 Phone:(575) 748-1283 Fax:(575) 748-9720

District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV
 1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS
 Action 28584

CONDITIONS

Operator: Western Refining Southwest LLC 539 South Main Street Findlay, OH 45840	OGRID: 267595
	Action Number: 28584
	Action Type: [UF-DP] Discharge Permit (DISCHARGE PERMIT)

CONDITIONS

Created By	Condition	Condition Date
scwells	Accepted for Record Retention Purposes-Only	11/21/2022