



**Marathon  
Petroleum Company LP**

November 12, 2019

Mr. John E. Kieling, Chief  
New Mexico Environmental Department  
2905 Rodeo Park Drive East, Bldg. 1  
Santa Fe, NM 87505-6303

**RE: Hydrocarbon Seep Interim Measures 2019 Second Quarter Status Report  
Marathon Petroleum Company LP, Gallup Refinery  
(dba Western Refining Southwest, Inc.)  
EPA ID# NMD000333211  
HWB-WRG-19-001**

Dear Mr. Kieling:

Please find enclosed the Response to Comments for the Hydrocarbon Seep Interim Measures Status Report for the second quarter of 2019. If you have any questions or comments regarding the information contained herein, please do not hesitate to contact Brian Moore at 505-726-9745.

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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**

A handwritten signature in blue ink that reads "Robert S. Hanks".

Robert S. Hanks  
Refinery General Manager

Enclosure

cc C. Chavez NMOC

92 Giant Crossing Road  
Jamestown, NM 87347

### **NMED Comment 1:**

NMED's *Approval* dated August 23, 2019 requires the Permittee to provide the information regarding the difference between RO reject water and boiler water. The Response provides a detailed explanation regarding the RO reject water. However, it is not clear whether the boiler water, described in the *2019 Facility-Wide Groundwater Monitoring Plan*, refers to the purified, raw, condensate water or the same RO reject water. Clarify the definition of the boiler water that was historically discharged to Pond EP-2.

### **MPC Response 1:**

As discussed with the NMED during a phone call in September 2019, use of the sample IDs of "Boiler Water" and "RO Reject" for identification are synonymous. Some persons collecting samples called them "Boiler Water" others called them "RO Reject". However, all samples consisted of "RO Reject" water. As discussed in the September 5, 2019 response letter to the NMED, the boiler water feedstock is very pure and would not be disposed of in a waste pond. Most of the boiler water is recycled for re-use in the boilers due to its purity. Generating that type of purified water at this location is expensive and it is not simply discarded in a waste pond.

### **NMED Comment 2:**

The Permittee's Response under the heading "Difference between RO Reject Water and Boiler Water" states, "(t]he heated condensate is then sent to a cooling tower for conversion back to water." Explain the fate of the heated condensate that is cooled down and converted to water. In addition, identify any chemicals used to prevent scaling. Provide the information in a response letter.

### **MPC Response 2:**

The water that results from the heated condensate is sent to the cooling towers to reduce the temperature prior to recycling back into the boiler water system. The heated condensate that is converted to water is returned to the boiler house to begin the process again immediately. It is a closed loop system and we only add water to replace the losses.

Chemicals that are added are provided by Suez and vary on the chemistry and are added as needed to maintain the water quality/consistency. They can include small additions of biocide, corrosion inhibitor, and acids/bases.

### **NMED Comment 3:**

The Permittee's Response under the heading "History of RO Reject Discharge to Pond 9" states, "[t]his brings us to the current day where the RO Reject is again discharged to Pond 9 while design is currently being conducted for total replacement. Once the replacement installation is completed (anticipated in 2nd or 3rd quarter of 2020), it is anticipated that the remainder of the line will be abandoned, and the new line will carry the RO reject water to pond STP-1." Clarify whether the Permittee currently has an approval from New Mexico Department of Energy, Minerals, and Natural Resources (EMNRD) Oil Conservation Division (OCD) to use evaporation ponds (e.g., EP-9) for the discharge of the RO reject water. Additionally, it is not clear whether EMNRD OCD has agreed to the direct discharge of the RO reject water to Pond STP-1 because wastewater treatment process associated with Pond STP-1 does not reduce the concentrations of constituents (e.g., chloride and sulfate) in the RO reject water. Clarify whether the Permittee has an approval from EMNRD OCD to route the RO reject water to Pond STP-1.

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**MPC Response 3:**

Attached are (1) a letter rescinding the Discharge Permit that says the State of New Mexico will notify MPC (Western Refining Southwest, Inc.) if there is a need to get any individual permits, and (2) emails between the refinery and OCD clearly discussing the discharge of the reject water into EP-2, which is no different than sending to EP-9.

The State of New Mexico has been aware of the discharge of the RO Reject to Pond 2 for some time. The Annual Groundwater Reports that are submitted to the NMED and OCD contain data tables that summarize “general chemistry” of the pond water that includes a discussion of chlorides. Re-routing the RO Reject to Pond-9 from Pond-2 does not represent a substantial change in that process.

The re-routing of RO Reject to STP-1 as part of future waste water treatment modifications is merely in the assessment stages as an option. No firm decisions have been made as to the exact configuration of future waste routing. However, as previously mentioned, chlorides are currently discharged to the evaporation ponds.

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**GW - 032**

**RESCISSION OF  
DISCHARGE  
PERMIT**

**(Transfer to AP-111)**

**2012**

# New Mexico Energy, Minerals and Natural Resources Department

**Susana Martinez**  
Governor

**John H. Bemis**  
Cabinet Secretary

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary

**Jami Bailey**  
Division Director  
**Oil Conservation Division**



**FEBRUARY 17, 2012**

Mr. Mark B. Turri  
Refinery General Manager  
Western Refining Southwest, Inc. - Gallup Refinery  
Interstate I-40, Exit 39  
Jamestown, New Mexico 87347

**Re: Rescission of Discharge Permit Renewal (GW-032) Gallup Refinery (Transfer to Abatement Plan No. 111) Section 28, UL: H, Township 15 North, Range 15 West, NMPM, McKinley County, New Mexico**

Dear Mr. Turri:

Based on your responses given in the "Oil & Gas Facilities Questionnaire for Determination of a WQCC Discharge Permit" and a file review, the Oil Conservation Division (OCD) has determined that your facility with an expired or soon to be expired permit is not required to operate under a Water Quality Control Commission (WQCC) Discharge Permit. This means that the WQCC Discharge Permit for GW-032 (Gallup Refinery) is hereby rescinded and you are not required to proceed with the renewal of the expired WQCC Discharge Permit. OCD will close this discharge permit in its database.

Previously, Western Refining Southwest, Inc. (Western) has conducted abatement of ground water contamination at this facility under the authority of its WQCC Discharge Permit, pursuant to 20.6.2.4000 NMAC (PREVENTION AND ABATEMENT OF WATER POLLUTION). OCD has determined that Western does not intentionally discharge at this facility; therefore, no WQCC Discharge Permit is required. However, because of existing ground water contamination at this facility, OCD is requiring Western to continue to abate pollution of ground water pursuant to 19.15.30 NMAC (REMEDIATION). The new Abatement Plan case number for the former GW-032 site is **AP-111**. Please use this Abatement Plan case number in all future correspondence.

Because this WQCC Discharge Permit will no longer be in effect, you may be required to obtain separate OCD permit(s) for other processes at your facility, such as: pits, ponds, impoundments, below-grade tanks, waste treatment, storage and disposal operations; and landfarms and landfills. OCD will determine if any of these existing processes may require a separate permit under OCD's Oil, Gas, and Geothermal Regulations. If OCD determines that a separate permit(s) is required, then a letter will be sent to you indicating the type of permit.

Please keep in mind, if your facility has any discharges that would require a WQCC Discharge Permit now or in the future, then Western will be required to renew or obtain a WQCC Discharge Permit.

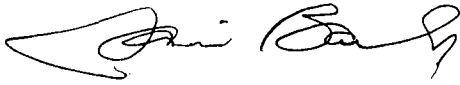
Oil Conservation Division \* 1220 South St. Francis Drive  
\* Santa Fe, New Mexico 87505

\* Phone: (505) 476-3440 \* Fax (505) 476-3462\* <http://www.emnrd.state.nm.us>

Mr. Mark B. Turri  
February 17, 2012  
Page 2 of 2

If Western has any questions regarding this matter, please contact Glenn von Gonten at 505-476-3488.

Thank you for your cooperation.

A handwritten signature in black ink, appearing to read "Jami Bailey". The signature is fluid and cursive, with a large initial "J" and "B".

Jami Bailey  
Director

JB/cjc

**Chavez, Carl J, EMNRD**

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**From:** Chavez, Carl J, EMNRD  
**Sent:** Thursday, August 31, 2006 10:33 AM  
**To:** 'Jim Lieb'; Ed Riege  
**Cc:** Price, Wayne, EMNRD; Powell, Brandon, EMNRD; Cobrain, Dave, NMENV; Monzeglio, Hope, NMENV  
**Subject:** Ciniza Refinery Water Flow Meter Final Engineering Design

Jim:

The OCD has completed its preliminary review of the water flow meter design. The supporting information provided was very helpful. OCD comments are provided below:

- 1) From past meetings and discussions with Giant, the OCD learned that aeration lagoon 1 (AL1) will flow directly into evaporation pond 1 (EP1) effectively bypassing aeration lagoon 2. Shouldn't the bypass from AL1 to EP1 be removed as this will change the results of the treatment system study? If Giant would like to keep the bypass, then another flow meter may be needed to monitor the flow rate between AL1 and EP1.
- 2) In the flow meter schedule table of Figure 4 of 5, Designation FM-4 Location should be changed to "Boiler Plant to EP2."
- 3) Be sure that the appropriate size flume is installed where the flow rate requires it and in consideration of maximum flow rate conditions for maximum production capacity at the plant. For example, extra large 60 degree V at appropriate locations should continue to be useful even at maximum flow rate conditions.

Please respond to the above comments and any comments that the NMED may have regarding the flow meters. Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM  
New Mexico Energy, Minerals & Natural Resources Dept.  
Oil Conservation Division, Environmental Bureau  
1220 South St. Francis Dr., Santa Fe, New Mexico 87505  
Office: (505) 476-3491  
Fax: (505) 476-3462  
E-mail: [CarlJ.Chavez@state.nm.us](mailto:CarlJ.Chavez@state.nm.us)  
Website: <http://www.emnrd.state.nm.us/ocd/>  
(Pollution Prevention Guidance is under "Publications")

**Chavez, Carl J, EMNRD**

**From:** Chavez, Carl J, EMNRD  
**Sent:** Thursday, June 15, 2006 9:55 AM  
**To:** 'Jim Lieb'  
**Cc:** Ed Riege; Steve Morris; Monzeglio, Hope, NMENV; Ed Rios; Price, Wayne, EMNRD  
**Subject:** RE: Ciniza Refinery Flow Meter Locations

Jim:

Good morning. Wayne and I discussed your msg. We are examining the Palmer-Bowlus type flumes with totalizers. Is there any specific model or type that you are proposing to use (see [http://tracomfrp.com/palmer\\_bowlus.htm](http://tracomfrp.com/palmer_bowlus.htm))? Please provide a link to info. on the specific type for our review.

Regarding the flow meter locations, the OCD requires monitoring between EP1 and EP2 and between AL2 and EP1. This will help us to determine infiltration loss, evaporation loss rates, and to better understand the overall treatment system capacity.

The OCD considers the flow from the OAPI drainage system to be an important flow monitoring point regardless of where the effluent is routed. While the flow rate of the pump is important to monitor to determine if it can keep up with drainage from the OAPI, the flow into the OAPI drainage system coming from an unidentified source(s) is also important to know. The OCD had anticipated that the continuous flow of contaminated water into the OAPI drainage network would be fixed. In consideration of the fire water evaporation pond (note: we have not received the design), Giant had proposed decommissioning the OAPI and routing water from the OAPI drainage network into the fire water pond. In consideration of this, the assumption by OCD was that the water would not be contaminated water and would be suitable for use as an emergency fire water source. Giant had verbally mentioned to me on May 9, 2006 that the dye test did not identify any leakage into the OAPI drainage network from the suspected process area. However, the OAPI continues to receive water coming from an unidentified source. Consequently, the OCD feels that there is a need to quantify the actual flow rate of water into the OAPI drainage network. We will need to meet or hold a conference call with Giant to further discuss the feasibility of the fire water pond as proposed on March 28, 2006, after reviewing the results of the dye test and NAPI issues discussed on March 28, 2006.

After receiving a couple of drawings of the NAPI, we are wondering whether the drawings reflect the more recent construction activities, i.e.; installation and/or repair of the secondary containment system, as built specifications, etc? Please clarify that the drawing represent the current construction of the NAPI or send current as-built drawings (to scale) for our review.

Thank you.

Carl J. Chavez, CHMM  
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 Website: <http://www.emnrd.state.nm.us/ocd/>  
 (Pollution Prevention Guidance is under "Publications")

**From:** Jim Lieb [mailto:[jlieb@giant.com](mailto:jlieb@giant.com)]  
**Sent:** Thursday, June 15, 2006 8:50 AM  
**To:** Chavez, Carl J, EMNRD  
**Cc:** Ed Riege; Steve Morris; Monzeglio, Hope, NMENV; Ed Rios  
**Subject:** RE: Ciniza Refinery Flow Meter Locations  
**Importance:** High

Carl:

6/15/2006



We will install the integrated flow meters. OCD and HWB require at the locations, like using Palmer-Bowlus type flumes with totalizers. Yesterday, Hope emailed reply to us that monitoring flow at location EP1 to EP2 in lieu of AL2 to EP1 was acceptable to the HWB. Would the alternate monitoring location also be acceptable to the OCD?

I'm not sure how you came to the conclusion that the flow rate to the NAPIS from the OAPIS is 0.5 gpm. I recall mentioning the 0.5 gpm rate as a "guesstimate" of the dry weather flow rate to the OAPIS. The Sandpiper pump that we are using to pump from the OAPIS to the NAPIS is capable of greater flow when it is running pumping down the level in the OAPIS. At this time we do not know what the actual flow rate is when the pump is running. To get an actual estimate of the flow, Steve Morris is going to run the discharge into a 55 gallon drum using a stopwatch feature on his watch. The NAPIS is capable of handling, and has been handling satisfactorily, the Sandpiper pumped flow from the OAPIS.

We will be forwarding the Trihydro sewer dye trace report including Giant's corrective action plan to OCD and HWB prior to June 26.

Regards,

Jim Lieb  
Giant - Ciniza

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**From:** Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]  
**Sent:** Wednesday, June 14, 2006 2:53 PM  
**To:** Jim Lieb  
**Cc:** Ed Riege; Steve Morris; Monzeglio, Hope, NMENV  
**Subject:** RE: Ciniza Refinery Flow Meter Locations

Jim:

The OCD and HWB require integrated flow meters (flow meter with totalizer (cumulative volumes) with visual determination of flow rate upon inspection).

According to our March 28, 2006 meeting at the Ciniza Refinery, the OCD had asked the question about the maximum flow rate for the discharge from the OAPI to be routed to the NAPI. Giant informed us that the max. flow rate would need to be less than or equal to about 0.5 gpm for OAPI effluent to be routed to the NAPI. Exceedences of 0.5 gpm would result in effluent from the OAPI continuing to be routed or overflow (?) into AL1. The OCD and HWB approved this on an interim basis until Giant could assess and fix the leakage problems in the drainage system of the OAPI. Currently the OCD and HWB are awaiting the results of the dye test and Giant's officials determination of the nature of leakage into the OAPI drainage system and repairs needed to fix the problem.

The OCD and HWB have received the design of the NAPI as requested on March 28, 2006 to determine possible action(s) at the NAPI.

I hope this helps. Please contact me if you have questions. Thanks.

Carl J. Chavez, CHMM  
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Website: <http://www.emnrd.state.nm.us/ocd/>  
(Pollution Prevention Guidance is under "Publications")

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**From:** Jim Lieb [mailto:jlieb@giant.com]  
**Sent:** Wednesday, June 14, 2006 1:19 PM  
**To:** Chavez, Carl J, EMNRD  
**Cc:** Ed Riege; Steve Morris; Monzeglio, Hope, NMENV  
**Subject:** RE: Ciniza Refinery Flow Meter Locations

**Importance:** High

Carl:

There is no direct flow from the OAPIS to the AL1. Flow from the OAPIS goes directly to the NAPIS.

We would like to propose use of V-Notch meters as flow meters. We already have experience with V-Notches flow meters and they would be relatively inexpensive and quick to install in time for the study which will begin soon. We would make them permanent by setting them in concrete frames.

It will be very difficult to install a meter between AL2 and EP1. However, the flow between EP1 and EP2 is essentially the same as flow from AL2 to EP1 and could easily be installed.

Let me know.

Thank you,

Jim

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**From:** Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]  
**Sent:** Wednesday, June 14, 2006 10:30 AM  
**To:** Jim Lieb  
**Cc:** Price, Wayne, EMNRD  
**Subject:** FW: Ciniza Refinery Flow Meter Locations

Jim:

I forgot to include item 6 below in my previous e-mail. Please include item 6 below in the flow meter monitoring location list.

- 1) PSE (pilot station effluent) to AL1 (aeration lagoon #1);
- 2) NAPIS (new API separator)- Benzene Stripper to AL1 (flow rate from benzene stripper to AL1);
- 3) OAPIS (old API separator) to AL1;
- 4) Boiler water to EP2 (evaporation pond #2); and
- 5) Flow between EP1 to EP2.
- 6) AL2 to EP1

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM  
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 Website: <http://www.emnrd.state.nm.us/ocd/>  
 (Pollution Prevention Guidance is under "Publications")

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**From:** Chavez, Carl J, EMNRD  
**Sent:** Wednesday, June 14, 2006 9:20 AM  
**To:** 'Jim Lieb'  
**Cc:** Price, Wayne, EMNRD; Foust, Denny, EMNRD; Powell, Brandon, EMNRD; Cobrain, Dave, NMENV; Monzeglio, Hope, NMENV  
**Subject:** Ciniza Refinery Flow Meter Locations

Jim:

6/15/2006

Good morning. From our March 28, 2006 meeting, you may recall we discussed the locations for flow meter monitoring at Ciniza. The OCD and HWB require flow meters at the following locations:

- 1) PSE (pilot station effluent) to AL1 (aeration lagoon #1);
- 2) NAPIS (new API separator)- Benzene Stripper to AL1 (flow rate from benzene stripper to AL1);
- 3) OAPIS (old API separator) to AL1;
- 4) Boiler water to EP2 (evaporation pond #2); and
- 5) Flow between EP1 to EP2.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM  
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