

AP- 121

WMW-2

Investigation



**Marathon
Petroleum Company LP**

December 20, 2019

Mr. Carl J. Chavez, CHMM
New Mexico Oil Conservation Division
Energy Minerals and Natural Resources Department
1220 South St Francis Drive
Santa Fe, New Mexico 87505

**RE: Response to Approval with Conditions
WMW-2 Benzene Exceedance Geoprobe Investigation Work Plan
Western Refining Southwest Inc., Wingate Facility**

Dear Mr. Chavez,

Attached please find the response to comments contained in the New Mexico Oil Conservation Division (OCD) Approval with Conditions email dated November 21, 2019.

If you have any questions or comments regarding the information contained herein, please do not hesitate to contact Mr. John Moore at 505-722-0205.

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction of 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 black ink that reads 'Robert S. Hanks'.

Robert S. Hanks
Refinery General Manager
Enclosure

cc K. Van Horn NMED
C. Chavez NMOCD
J. Moore Marathon Gallup Refinery
G. McCartney Marathon Petroleum Corporation
H. Jones Trihydro Corporation



**RESPONSE TO APPROVAL WITH CONDITIONS
SAMPLING INVESTIGATION WORK PLAN**

Oil Conservation Division (OCD) Conditions

OCD Condition 1:

Adhere to EPA QA/QC and DQOs during the environmental field investigation, sampling and analytical lab work.

Marathon Petroleum Company (MPC) Response 1:

The comment is acknowledged and Marathon Petroleum Corporation (MPC) will adhere to the United States Environmental Protection Agency (EPA) Quality Assurance/Quality Control (QA/QC) and Data Quality Objectives (DQO's) during the investigation.

OCD Condition 2:

Work plan Section c.iv.5: One environmental soil sample at BH-1, BH-2, BH-3, BH-4 and BH-5 from above the water table is required with 8260 Method lab analysis is required.

MPC Response 2:

The comment is acknowledged and MPC will submit one environmental sample from above the water table at BH-1, BH-2, BH-3, BH-4, and BH-5 for 8260 Method lab analysis.

OCD Condition 3:

Based on step out approach, i.e., BHs 6 – 11, based on field PID > 1 ppm results per BH, continued step-out to complete horizontal characterization of contamination is required (see OCD "Recommendations" section below).

MPC Response 3:

The comment is acknowledged, and step-out borings will be installed on MPC property during this phase of the investigation. If photo ionization detector (PID) results indicate further off-site locations are necessary, a workplan for the next phase will be prepared as long as off-site access can be obtained.

OCD Condition 4:



RESPONSE TO APPROVAL WITH CONDITIONS
SAMPLING INVESTIGATION WORK PLAN

More information on the ponds and their proximity or intersection with potential GW contamination observed at WMW-2 is needed.

MPC Response 4:

The closest pond, approximately 685 feet northwest of WMW-2, is cross gradient from WMW-2 and should not be impacted by contamination in the vicinity of WMW-2. WMW-4 lies between WMW-2 and the pond and has never had observable contamination.

OCD Condition 5:

Provide a work schedule to OCD within 30 days from the date of this message.

MPC Response 5:

The comment is acknowledged, and a work schedule will be submitted for work to begin in the first quarter of 2020.

OCD Observations

OCD Observation 1:

The map with proposed BHs does not have a scale; however, all BHs appear to be within Marathon Property.

MPC Response 1:

The first phase of the investigation will involve determining the extent of dissolved phase constituents on MPC property.

OCD Observation 2:

Marathon mentions WMW-7 was installed into an artesian saturated sand zone below clay with head indicative of artesian condition. There appears to be a shallow water table aquifer or perched aquifer present at the facility. Perhaps the water table pinches out in the vicinity of WMW-7.

MPC Response 2:



RESPONSE TO APPROVAL WITH CONDITIONS

SAMPLING INVESTIGATION WORK PLAN

The comment is acknowledged, and the presence or absence of a shallow water table aquifer or perched aquifer will be evaluated during this initial phase of the investigation.

OCD Observation 3:

WMW-2 appears to be at or near the benzene source area.

MPC Response 3:

The comment is acknowledged.

OCD Observation 4:

No soil sampling is proposed.

MPC Response 4:

The comment is acknowledged and based on other OCD comments, soil samples will be collected at each borehole directly above the water table.

OCD Observation 5:

All the proposed BHs appear to be on Marathon Property.

MPC Response 5:

As mentioned in MPC's response to OCD's Observation 1, the first phase of the investigation will be to determine the extent of contamination on MPC's property. Any off-site contamination will be addressed during subsequent phases of the investigation.

OCD Observation 6:

The railroad loadout rack is currently the suspected source for Benzene.

MPC Response 6:

The comment is acknowledged.

OCD Observation 7:



RESPONSE TO APPROVAL WITH CONDITIONS

SAMPLING INVESTIGATION WORK PLAN

Pond correspondence from Marathon indicates ponds are likely in hydrogeologic connection with GW (water table) in the ponds and there appears to be discoloration of soils and water present.

MPC Response 7:

The photographs of the ponds are from Solid Waste Management Unit (SWMU) 1 at the MPC Gallup Refinery, not the Wingate facility.

OCD Recommendations

OCD Recommendation 1:

Since Marathon has a Geoprobe Rig, and a shallow water table, borings could be installed across I-40 South of WMWs 2, 4 and 7. The Geoprobe could be used to physically excavate boreholes for permanent MW emplacement at the water table with sand, gravel pack around screen, bentonite above sand, and well caps with locks.

MPC Response 1:

MPC plans to implement this investigation in a phased approach. The first phase will be determining the extent of contamination on MPC property. If the extent of contamination appears to extend off-site to the south and southeast, the acquisition of off-site access agreements will be attempted and a work plan for the next phase of investigation will be submitted to OCD.

OCD Comments and Questions

OCD Question 1:

OCD had difficulty correlating pond photos to ponds on attached maps. For example, a pond photo displays a culvert, which may mean it is a facility stormwater run-in and/or run-off pond?

MPC Response 1:

These pond photos are part of SWMU 1 at the Marathon Gallup Refinery and are not associated with the Wingate facility.

OCD Question 2:



**RESPONSE TO APPROVAL WITH CONDITIONS
SAMPLING INVESTIGATION WORK PLAN**

There is mention by Marathon that head in the pond photos is from the water table aquifer in hydrogeologic connection with the pond(s).

MPC Response 2:

See MPC's response to OCD Question 1 above.

OCD Question 3:

The pond photos appear to exhibit soil staining and discolored groundwater.

MPC Response 3:

See MPC's response to OCD Question 1 above.

OCD Question 4:

Could Marathon correlate the pond photos with any of the attached maps?

MPC Response 4:

See MPC's response to OCD Question 1 above.

OCD Question 5:

If any of the ponds are the evaporation ponds for the facility, is Marathon working to repair or install a liner system over the breached liner system?

MPC Response 5:

See MPC's response to OCD Question 1 above.

OCD Question 6:

Has Marathon collected any soil and water media environmental lab samples from the ponds in the photos?

MPC Response 6:

See MPC's response to OCD Question 1 above.

From: [Chavez, Carl J. EMNRD](#)
To: [Heidi Jones](#)
Cc: [Moore, John](#); ["Gregory J. McCartney"](#); [Caitlin Fields](#); [Wade, Gabriel. EMNRD](#); [Griswold, Jim. EMNRD](#); [Powell, Brandon. EMNRD](#)
Subject: RE: Wingate Response to OCD Approval with Conditions, Dated November 21, 2019
Date: Friday, December 20, 2019 10:12:00 AM
Attachments: [201912_RTC-OCD_LTR.docx](#)

Ms. Jones, et al.:

Re: AP-121 (Formerly Conoco AP-117/GW-054) Marathon Petroleum Company

The New Mexico Oil Conservation Division (OCD) concurs with the submitted Trihydro document.

Please proceed.

Thank you.

Mr. Carl J. Chavez, CHMM (#13099)
New Mexico Oil Conservation Division
Energy Minerals and Natural Resources Department
1220 South St Francis Drive
Santa Fe, New Mexico 87505
Ph. (505) 476-3490
E-mail: CarlJ.Chavez@state.nm.us

“Why not prevent pollution, minimize waste to reduce operating costs, reuse or recycle, and move forward with the rest of the Nation?” (To see how, go to: <http://www.emnrd.state.nm.us/OCD> and see “Publications”)

From: Heidi Jones <hjones@trihydro.com>
Sent: Friday, December 20, 2019 9:14 AM
To: Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Cc: Moore, John <jmoore5@marathonpetroleum.com>; 'Gregory J. McCartney' <gjmmcarty@marathonpetroleum.com>; Caitlin Fields <CFields@trihydro.com>
Subject: [EXT] Wingate Response to OCD Approval with Conditions, Dated November 21, 2019

Good Morning Carl,

Attached is Marathon's Response to Approval with Conditions, WMW-2 Benzene Exceedance Geoprobe Investigation Work Plan, Western Refining Southwest Inc., Wingate Facility. The hard copy will be mailed out next week. Please feel free to contact John Moore if you have any questions or would like to discuss this response.

Thank You,
Heidi

Heidi Jones, CES
Rocky Mountain South Team Leader

OUR SAFETY IS MY RESPONSIBILITY



1252 Commerce Drive
Laramie, Wyoming 82070
307/745-7474 (phone)
307/745-7729 (fax)
hjones@trihydro.com
www.trihydro.com

CONFIDENTIAL INFORMATION: This electronic message is intended only for the use of the person or entity to which it is addressed and may contain information that is privileged and confidential, the disclosure of which is governed by applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering it to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this information is STRICTLY PROHIBITED. If you have received this message in error, please immediately notify the sender by either email or telephone. Please destroy the related message. Thank you for your cooperation.

From: [Chavez, Carl J. EMNRD](#)
To: [Heidi Jones](#)
Cc: [Moore, John](#); ["Gregory J. McCartney"](#); [Caitlin Fields](#)
Subject: RE: Wingate Response to OCD Approval with Conditions, Dated November 21, 2019
Date: Friday, December 20, 2019 9:56:00 AM

Ms. Jones, et al.:

Re: AP-121 (Formerly Conoco AP-117/GW-054) Marathon Petroleum Company

Good morning. The New Mexico Oil Conservation Division (OCD) is in receipt of the above subject document.

OCD will respond soon.

Thank you.

Mr. Carl J. Chavez, CHMM (#13099)
New Mexico Oil Conservation Division
Energy Minerals and Natural Resources Department
1220 South St Francis Drive
Santa Fe, New Mexico 87505
Ph. (505) 476-3490
E-mail: CarlJ.Chavez@state.nm.us

“Why not prevent pollution, minimize waste to reduce operating costs, reuse or recycle, and move forward with the rest of the Nation?” (To see how, go to: <http://www.emnrd.state.nm.us/OCD> and see “Publications”)

From: Heidi Jones <hjones@trihydro.com>
Sent: Friday, December 20, 2019 9:14 AM
To: Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Cc: Moore, John <jmoore5@marathonpetroleum.com>; 'Gregory J. McCartney' <gjmccartney@marathonpetroleum.com>; Caitlin Fields <CFields@trihydro.com>
Subject: [EXT] Wingate Response to OCD Approval with Conditions, Dated November 21, 2019

Good Morning Carl,

Attached is Marathon's Response to Approval with Conditions, WMW-2 Benzene Exceedance Geoprobe Investigation Work Plan, Western Refining Southwest Inc., Wingate Facility. The hard copy will be mailed out next week. Please feel free to contact John Moore if you have any questions or would like to discuss this response.

Thank You,
Heidi

Heidi Jones, CES
Rocky Mountain South Team Leader

OUR SAFETY IS MY RESPONSIBILITY



1252 Commerce Drive
Laramie, Wyoming 82070
307/745-7474 (phone)
307/745-7729 (fax)
hjones@trihydro.com
www.trihydro.com

CONFIDENTIAL INFORMATION: This electronic message is intended only for the use of the person or entity to which it is addressed and may contain information that is privileged and confidential, the disclosure of which is governed by applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering it to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this information is STRICTLY PROHIBITED. If you have received this message in error, please immediately notify the sender by either email or telephone. Please destroy the related message. Thank you for your cooperation.



December 20, 2019

Mr. Carl J. Chavez, CHMM
New Mexico Oil Conservation Division
Energy Minerals and Natural Resources Department
1220 South St Francis Drive
Santa Fe, New Mexico 87505

**RE: Response to Approval with Conditions
WMW-2 Benzene Exceedance Geoprobe Investigation Work Plan
Western Refining Southwest Inc., Wingate Facility**

Dear Mr. Chavez,

Attached please find the response to comments contained in the New Mexico Oil Conservation Division (OCD) Approval with Conditions email dated November 21, 2019.

If you have any questions or comments regarding the information contained herein, please do not hesitate to contact Mr. John Moore at 505-722-0205.

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction of 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 K. Van Horn NMED
C. Chavez NMOCD
J. Moore Marathon Gallup Refinery
G. McCartney Marathon Petroleum Corporation
H. Jones Trihydro Corporation



RESPONSE TO APPROVAL WITH CONDITIONS SAMPLING INVESTIGATION WORK PLAN

Oil Conservation Division (OCD) Conditions

OCD Condition 1:

Adhere to EPA QA/QC and DQOs during the environmental field investigation, sampling and analytical lab work.

Marathon Petroleum Company (MPC) Response 1:

The comment is acknowledged and Marathon Petroleum Corporation (MPC) will adhere to the United States Environmental Protection Agency (EPA) Quality Assurance/Quality Control (QA/QC) and Data Quality Objectives (DQO's) during the investigation.

OCD Condition 2:

Work plan Section c.iv.5: One environmental soil sample at BH-1, BH-2, BH-3, BH-4 and BH-5 from above the water table is required with 8260 Method lab analysis is required.

MPC Response 2:

The comment is acknowledged and MPC will submit one environmental sample from above the water table at BH-1, BH-2, BH-3, BH-4, and BH-5 for 8260 Method lab analysis.

OCD Condition 3:

Based on step out approach, i.e., BHs 6 – 11, based on field PID > 1 ppm results per BH, continued step-out to complete horizontal characterization of contamination is required (see OCD "Recommendations" section below).

MPC Response 3:

The comment is acknowledged, and step-out borings will be installed on MPC property during this phase of the investigation. If photo ionization detector (PID) results indicate further off-site locations are necessary, a workplan for the next phase will be prepared as long as off-site access can be obtained.

OCD Condition 4:



RESPONSE TO APPROVAL WITH CONDITIONS

SAMPLING INVESTIGATION WORK PLAN

More information on the ponds and their proximity or intersection with potential GW contamination observed at WMW-2 is needed.

MPC Response 4:

The closest pond, approximately 685 feet northwest of WMW-2, is cross gradient from WMW-2 and should not be impacted by contamination in the vicinity of WMW-2. WMW-4 lies between WMW-2 and the pond and has never had observable contamination.

OCD Condition 5:

Provide a work schedule to OCD within 30 days from the date of this message.

MPC Response 5:

The comment is acknowledged, and a work schedule will be submitted for work to begin in the first quarter of 2020.

OCD Observations

OCD Observation 1:

The map with proposed BHs does not have a scale; however, all BHs appear to be within Marathon Property.

MPC Response 1:

The first phase of the investigation will involve determining the extent of dissolved phase constituents on MPC property.

OCD Observation 2:

Marathon mentions WMW-7 was installed into an artesian saturated sand zone below clay with head indicative of artesian condition. There appears to be a shallow water table aquifer or perched aquifer present at the facility. Perhaps the water table pinches out in the vicinity of WMW-7.

MPC Response 2:



RESPONSE TO APPROVAL WITH CONDITIONS

SAMPLING INVESTIGATION WORK PLAN

The comment is acknowledged, and the presence or absence of a shallow water table aquifer or perched aquifer will be evaluated during this initial phase of the investigation.

OCD Observation 3:

WMW-2 appears to be at or near the benzene source area.

MPC Response 3:

The comment is acknowledged.

OCD Observation 4:

No soil sampling is proposed.

MPC Response 4:

The comment is acknowledged and based on other OCD comments, soil samples will be collected at each borehole directly above the water table.

OCD Observation 5:

All the proposed BHs appear to be on Marathon Property.

MPC Response 5:

As mentioned in MPC's response to OCD's Observation 1, the first phase of the investigation will be to determine the extent of contamination on MPC's property. Any off-site contamination will be addressed during subsequent phases of the investigation.

OCD Observation 6:

The railroad loadout rack is currently the suspected source for Benzene.

MPC Response 6:

The comment is acknowledged.

OCD Observation 7:



RESPONSE TO APPROVAL WITH CONDITIONS

SAMPLING INVESTIGATION WORK PLAN

Pond correspondence from Marathon indicates ponds are likely in hydrogeologic connection with GW (water table) in the ponds and there appears to be discoloration of soils and water present.

MPC Response 7:

The photographs of the ponds are from Solid Waste Management Unit (SWMU) 1 at the MPC Gallup Refinery, not the Wingate facility.

OCD Recommendations

OCD Recommendation 1:

Since Marathon has a Geoprobe Rig, and a shallow water table, borings could be installed across I-40 South of WMWs 2, 4 and 7. The Geoprobe could be used to physically excavate boreholes for permanent MW emplacement at the water table with sand, gravel pack around screen, bentonite above sand, and well caps with locks.

MPC Response 1:

MPC plans to implement this investigation in a phased approach. The first phase will be determining the extent of contamination on MPC property. If the extent of contamination appears to extend off-site to the south and southeast, the acquisition of off-site access agreements will be attempted and a work plan for the next phase of investigation will be submitted to OCD.

OCD Comments and Questions

OCD Question 1:

OCD had difficulty correlating pond photos to ponds on attached maps. For example, a pond photo displays a culvert, which may mean it is a facility stormwater run-in and/or run-off pond?

MPC Response 1:

These pond photos are part of SWMU 1 at the Marathon Gallup Refinery and are not associated with the Wingate facility.

OCD Question 2:



RESPONSE TO APPROVAL WITH CONDITIONS
SAMPLING INVESTIGATION WORK PLAN

There is mention by Marathon that head in the pond photos is from the water table aquifer in hydrogeologic connection with the pond(s).

MPC Response 2:

See MPC's response to OCD Question 1 above.

OCD Question 3:

The pond photos appear to exhibit soil staining and discolored groundwater.

MPC Response 3:

See MPC's response to OCD Question 1 above.

OCD Question 4:

Could Marathon correlate the pond photos with any of the attached maps?

MPC Response 4:

See MPC's response to OCD Question 1 above.

OCD Question 5:

If any of the ponds are the evaporation ponds for the facility, is Marathon working to repair or install a liner system over the breached liner system?

MPC Response 5:

See MPC's response to OCD Question 1 above.

OCD Question 6:

Has Marathon collected any soil and water media environmental lab samples from the ponds in the photos?

MPC Response 6:

See MPC's response to OCD Question 1 above.