Western Refining Southwest LLC
A subsidiary of Marathon Petroleum Corporation
I-40 Exit 39
Jamestown, NM 87347

March 11, 2022

Mr. Kevin Pierard, Chief
New Mexico Environment Department
2905 Rodeo Park Drive East, Bldg. 1
Santa Fe, NM 87505-6303

RE: Response to Disapproval
2020 Annual Groundwater Monitoring Report
Western Refining Southwest LLC
(DBA Marathon Gallup Refinery)
EPA ID# NMD000333211
HWB-WRG-21-012

Dear Mr. Pierard:

Attached please find the response to comments contained in the New Mexico Environment Department (NMED) Disapproval letter dated October 20, 2021. A timeline of the 2020 Annual Groundwater Monitoring Report is provided below.

- Report, submitted September 1, 2021
- Disapproval, received October 20, 2021

Two hard copies and an electronic version of the revised Report are included. A redline-strikeout version in electronic format is also included.

If you have any questions or comments regarding the information contained herein, please do not hesitate to contact Mr. John Moore at (505) 879-7643.

Western Refining Southwest LLC
A subsidiary of Marathon Petroleum Corporation
I-40 Exit 39
Jamestown, NM 87347

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,

Western Refining Southwest LLC, DBA Marathon Gallup Refinery

Ruth A Cade

Ruth Cade
Vice-President

Enclosures

cc: D. Cobrain, NMED HWB
M. Suzuki, NMED HWB
L. Barr, NMOCD
K. Luka, Marathon Petroleum Corporation
M. Bracey, Marathon Petroleum Corporation
J. Moore, Marathon Gallup Refinery
H. Jones, Trihydro Corporation

ATTACHMENT A

RESPONSE TO COMMENTS

New Mexico Environment Department (NMED) to Western Refining Southwest LLC (DBA Marathon Gallup Refinery [Refinery]) Comment Letter "Disapproval 2020 Annual Groundwater Monitoring Report" (October 20, 2021)

NMED Comments	Refinery Responses
Comment 1:	**Response 1:**
The hard copy of the Report included two cover pages with two different dates. The outer cover page of the binder is dated as September 1, 2021 while the other inside the binder is dated as September 3, 2021. These dates must be consistent in the revised Report.	This comment is acknowledged. Dates will be consistent in the revised Report.
Comment 2:	**Response 2:**
The electronic copy of the Report did not include the laboratory analytical reports. Appendix C (2020 Laboratory Analytical Reports) was designated for the Report but they were not included in the Appendix. Although a hard copy of the analytical reports is unnecessary, an electronic copy of the analytical reports must be included in the revised Report.	This comment is acknowledged. Analytical reports have been included with this submittal on CD.
Comment 3:	**Response 3:**
The depth to water (DTW) readings are reported with a unit of feet below measuring point (bmp) throughout the Report. The Report does not indicate whether the referenced measuring point (bmp) is the top of casing (TOC) or at the ground surface. The DTW readings must not be reported as feet bmp. All DTW readings must be reported with a unit of feet below ground surface (bgs). Change the units for all reported DTW readings from feet bmp to feet bgs in the revised Report. Furthermore, all DTW readings must be reported as feet bgs for all future submittals.	This comment has been acknowledged. All units for all reported depth to water (DTW) readings have been revised from feet-below measuring point (ft-bmp) to feet-below ground surface (ft-bgs) in the revised Report and Tables. It should be noted that previous annual reports have presented the fluid level depth to water from the measuring point. In addition, data in field logs (Appendix A) are measured in ft bmp and have been converted after sampling. Western Refining Southwest LLC (DBA Marathon Gallup Refinery [Refinery]) will use feet below ground surface for the 2020 Report and future submittals. Text in Section 3.0 (Fluid Level Results), page 18 of 31, has been revised to state, "Fluid levels are measured monthly, quarterly, semiannually, and annually depending on the monitoring well. Fluid level measurements are recorded as ft below measuring point on the field logs and converted to ft below ground surface

New Mexico Environment Department (NMED) to Western Refining Southwest LLC (DBA Marathon Gallup Refinery [Refinery]) Comment Letter "Disapproval 2020 Annual Groundwater Monitoring Report" (October 20, 2021)

NMED Comments	Refinery Responses
	(bgs) for reporting. Fluid level data and SPH measurements collected during 2020 are summarized in Table 3-1."

New Mexico Environment Department (NMED) to Western Refining Southwest LLC (DBA Marathon Gallup Refinery [Refinery]) Comment Letter "Disapproval 2020 Annual Groundwater Monitoring Report" (October 20, 2021)

NMED Comments	Refinery Responses
Comment 4:	**Response 4:**
In the Executive Summary, page 2 of 29, bullet 1, the Permittee states, "[t]he groundwater monitoring wells screened in the Alluvial/Fluvial aquifer are consistently dry." The referenced "Alluvial/Fluvial aquifer" was previously designated as the "Upper Sand unit" and is also designated differently as the "Pot Surface - Alluvial" in Tables ES-1 and 3-1 (Fluid Level Monitoring (2020)). The designation of the aquifers must be defined and consistent throughout the Report. In addition, according to Tables ES-1 and 3-1, page 1 of 12, the groundwater elevations in wells BW-2A, BW-4A, and BW-5A recorded in 2020, indicate that groundwater was present. The statement appears to contradict the data presented on the tables. Resolve the discrepancies in the revised Report.	Per New Mexico Environment Department's (NMED) Comment 22, Table ES-1 has been removed. The revised report now references Table 3-1. All references to the Alluvial/Fluvial aquifer have been revised to Alluvial/Fluvial upper sand aquifer in the text for consistency. Revisions were made in the Executive Summary, page 2 of 31, bullet 1; Section 1.2.2 (Groundwater Characteristics), page 13 of 31; Section 2.0 (Monitoring Program), page 15 of 31; Section 3.1 (Potentiometric Surface), page 18 of 31; and Section 6.0 (Conclusions), page 28 of 31, bullet 1. In addition, Section 1.2.2 (Groundwater Characteristics), page 13 of 31, the text regarding the aquifer designation has been updated to state, "Three aquifers sit below the Refinery: the Alluvial/Fluvial upper sand aquifer (previously referred to as the Upper Sand Unit), the Chinle/Alluvium aquifer, and the Sonsela aquifer." Table 3-1 and Appendices B-1 and B-2A were also updated to be consistent with the text. The Executive Summary, page 2 of 31, bullet 1 and Section 6.0 (Conclusions), page 28 of 31, bullet 1, were clarified to state, "The 2020 depth to groundwater in monitoring wells screened in the Alluvial/Fluvial upper sand aquifer ranged from a high of 20.33 feet below ground surface (ft-bgs) (BW-5A in June 2020) to a low of 35.42 ft-bgs (BW-4A in March 2020). Based on the measured water level column in BW-4A and BW-5A (less than 0.5 ft), water detected in these wells may be due to

New Mexico Environment Department (NMED) to Western Refining Southwest LLC (DBA Marathon Gallup Refinery [Refinery]) Comment Letter "Disapproval 2020 Annual Groundwater Monitoring Report" (October 20, 2021)

NMED Comments	Refinery Responses
	accumulation in the well sump rather than representative of the groundwater potentiometric surface (see Table 3-1)." Section 3.1 (Potentiometric Surface), page 18 of 31, was revised to state, "The Alluvial/Fluvial upper sand aquifer is monitored with five groundwater monitoring wells (BW-1A, BW-2A, BW-3A, BW-4A, and BW-5A) (Figure 3-1). The depth to groundwater of BW-2A was 30.12 ft below ground surface (bgs) during the annual monitoring event of 2020. Groundwater elevation was approximately 6841.76 ft above mean sea level (msl) during the annual monitoring event. The groundwater elevation of BW-2A has stayed consistent with previous gauging events. Groundwater was detected once in BW-4A at 35.42 ft-bgs and the groundwater elevation was approximately 6834.84 ft-msl in the first quarter of 2020. Groundwater was detected twice in BW-5A at 20.33 ft-bgs and 20.39 ft-bgs and 6853.79 ft-msl and 6853.73 ft-msl in the second and fourth quarter, respectively. Based on the measured water level column in BW-4A and BW-5A (less than 0.5 ft), water detected in these wells may be due to accumulation in the well sump rather than representative of the groundwater potentiometric surface (Table 3-1)."
Comment 5:	**Response 5:**
In the Executive Summary, page 2 of 29, bullet 1, and Section 6.0 (Conclusion), page 26 of 29, bullet 1, the Permittee states, "BW-2A had water detected approximately 32.93 ft below measuring point (bmp) during the third quarter of 2020." Although Appendix B-1 (Historical Fluid Level Monitoring (2014-2020)) provides multiple DTW readings since 2014, only one reading for well BW-2A is presented in Tables ES-1 and 3-1,	Per NMED Comment 22, Table ES-1 has been removed. The revised report now references Table 3-1. The five fluid level data points collected prior to 2020 for each well have been added to Table 3-1 for comparison. Depth to top of screen, depth to of bottom screen, and total depth drilled were

New Mexico Environment Department (NMED) to Western Refining Southwest LLC (DBA Marathon Gallup Refinery [Refinery]) Comment Letter "Disapproval 2020 Annual Groundwater Monitoring Report" (October 20, 2021)

NMED Comments	Refinery Responses
page 1 of 12. In the previous reports (e.g., Annual Groundwater Monitoring Report Gallup Refinery - 2019 (2019 Report), dated September 15, 2020), five data points were included with the most recent data point for comparison. Include additional data points for each well to be compared and evaluated in the revised tables. In addition, this 2020 Report did not include information regarding the construction of the wells (e.g., the screened interval depth, total well depth) and survey data (e.g., ground level elevation), which were included in the previous reports and useful. Include the missing information and additional data points in the revised Report.	added to Table 3-1 to provide well construction information. All historical data is included in Appendix B-1.
Comment 6:	**Response 6:**
In the Executive Summary, page 2 of 29, bullet 2, and Section 6.0 (Conclusion), page 26 of 29, bullet 2, the Permittee states, "[t]he groundwater monitoring wells screened in the Chinle/Alluvium aquifer ranged from 4.59 ft bmp (MKTF-28) to 39.86 ft bmp (BW-4B)." There appears to be a typographical error in reporting the DTW readings in the Chinle/Alluvium aquifer. According to Tables ES-1 and 3-1, the DTW readings in the wells listed under the category of "Pot Surface - Chinle" ranged from 3.61 feet bmp (MKTF-27) to 44.75 feet bmp (BW-4B). Correct the statement for accuracy in the revised Report. In addition, the Permittee must be consistent with the designations in the tables (e.g., Pot Surface - Chinle) with the designations used in the statement (e.g., Chinle/Alluvium aquifer). Revise all applicable sections of the Report and Tables to ensure consistency.	Per NMED's Comment 22, Table ES-1 has been removed. The revised report now references Table 3-1. The Executive Summary, page 2 of 31, bullet 2; Section 3.1 (Potentiometric Surface), page 18 of 31; and Section 6.0 (Conclusions), page 28 of 31, bullet 2, were revised to state, "The 2020 depth to groundwater in monitoring wells screened in the Chinle/Alluvium aquifer ranged from a high of 1.07 ft-bgs (MKTF-27 in February 2020) to a low of 41.96 ft-bgs (BW-4B in June 2020)." Table 3-1 and Appendices B-1 and B-2 were also updated to be consistent with the text. For consistency, Chinle aquifer or Chinle/Alluvial aquifer have been revised to Chinle/Alluvium aquifer where appropriate, including Executive Summary, page 4 of 31, bullet 4; Section 2.0 (Monitoring Program) page 16 of 21; Section 4.4 (Wastewater Treatment Area Analytical Results), page 23 of 31;

New Mexico Environment Department (NMED) to Western Refining Southwest LLC (DBA Marathon Gallup Refinery [Refinery]) Comment Letter "Disapproval 2020 Annual Groundwater Monitoring Report" (October 20, 2021)

NMED Comments	Refinery Responses
	Section 4.9 (Deep Monitoring Wells Analytical Results), page 24 of 31; and Section 6.0 (Conclusions), page 29 of 31, bullet 6.
Comment 7:	**Response 7:**
In the Executive Summary, page 2 of 29, bullet 3, and Section 6.0 (Conclusion), page 26 of 29, bullet 3, the Permittee states, "[t]he groundwater monitoring wells screened in the Sonsela aquifer ranged from 1.45 ft bmp (OW-01) to 46.45 ft bmp (OW-12)." There appears to be a typographical error in reporting the DTW in well OW-12. According to Tables ES-1 and 3-1, the DTW readings in the well OW-12 is actually 46.49 ft bmp. Correct the statement for accuracy in the revised Report. In addition, as stated in Comment 6, the designated category in the tables (e.g., Pot Surface - Sonsela Wells) must be consistent with the designation used in the statement (Sonsela aquifer). Revise all applicable sections of the Report and Tables to ensure consistency in designations of the aquifer.	Per NMED's Comment 22, Table ES-1 has been removed. The revised report now references Table 3-1. The Executive Summary, page 2 of 31, bullet 3; Section 3.1 (Potentiometric Surface), page 18 of 31; and Section 6.0 (Conclusions), page 28 of 31, bullet 3, were revised to state: "The 2020 depth to groundwater in monitoring wells screened in the Sonsela aquifer ranged from a high of 0.21 ft above ground surface inside the well casing (BW-5C in March 2020) to a low of 45.37 ft-bgs (OW-12 in November 2020). BW-5C is on the northwest end of the property and is considered artesian." Table 3-1 and Appendices B-1 and B-2 were also updated to be consistent with the text. For consistency, Sonsela formation has been revised to Sonsela aquifer where appropriate, including Section 2.0 (Monitoring Program), page 16 of 31.
Comment 8:	**Response 8:**
In the Executive Summary, page 2 of 29, bullet 4, the Permittee states, "[m]easurable SPH was detected in 39 monitoring wells during the third quarter of 2020 (Table ES-1 and Figure ES-1). The measured SPH thickness ranged from less than 0.01 ft to 6.41 ft (MKTF-33) across the site." The Separate Phase Hydrocarbon (SPH) data collected during the third quarter of	Table ES-1 (per NMED Comment 22) and Figure ES-1 (per NMED Comment 33) have been removed. The revised report now references Table 3-1 and Figure 3-4, respectively. The Executive Summary, page 2 of 31, bullet 4; Section 3.2 (SPH Detections), page 19 of 31; and Section 6.0 (Conclusions),

New Mexico Environment Department (NMED) to Western Refining Southwest LLC (DBA Marathon Gallup Refinery [Refinery]) Comment Letter "Disapproval 2020 Annual Groundwater Monitoring Report" (October 20, 2021)

NMED Comments	Refinery Responses
2020 is only mentioned in the Executive Summary. The SPH data collected during all quarters of 2020 must be discussed in appropriate section(s) of the revised Report. In addition, according to Figure ES-1 (SPH Thickness Map (2020) 3rd Quarter 2020), SPH was detected in 37 wells rather than 39 wells. Correct the discrepancy in the revised Report.	page 28 of 31, bullet 4, were revised to state, "Measurable separate phase hydrocarbon (SPH) was detected during all four quarters in 2020: 23 monitoring wells during first quarter, 29 monitoring wells during second quarter, 37 monitoring wells during third quarter (i.e., the annual event), and 36 monitoring wells during fourth quarter. The measured SPH thickness ranged from 0.01 ft in multiple locations to 6.41 ft (MKTF-33) across the site during the 2020 annual event."
Comment 9:	**Response 9:**
In the Executive Summary, page 2 of 29, bullet 4, Section 3.2 (SPH Detections), page 17 of 29, paragraph 6, and Section 6.0 (Conclusion), page 26 of 29, bullet 4, the Permittee states, "[g]enerally, SPH thicknesses have been decreasing at the site with the exception of wells: MKTF-13, MKTF-48, GWM-1, OW-65, and OW-61 (Figure ES-1)." The statement is not accurate. According to Tables ES-1 and 3-1, the SPH thicknesses in most wells (e.g., MKTF-01, MKTF-03, MKTF-04, MKTF-05, MKTF-06, MKTF-07, MKTF-08, MKTF-09, MKTF-11, MKTF-12, MKTF-14, MKTF-15, MKTF-19, MKTF-21, MKTF-22, MKTF-26, MKTF-33, OW-61, OW-62, OW-65, RW-1, RW-2, RW-5, and RW-6) appear to be fluctuating or increasing rather than decreasing. Furthermore, the SPH thickness in well MKTF-13 appears to have decreased rather than increased in 2020. Revise the statement for accuracy.	Table ES-1 (per NMED Comment 22) and Figure ES-1 (per NMED Comment 33) have been removed. The revised report now references Table 3-1 and Figure 3-4, respectively. This statement has been removed from the Executive Summary, page 2 of 31, bullet 4; Section 3.2 (SPH Detections), page 19 of 31; and Section 6.0 (Conclusions), page 28 of 31, bullet 4. Information on SPH detections has been included as stated in Refinery Response 8. In addition, the following sentence was added to each aforementioned section, "SPH thicknesses measured in 2020 are presented on Table 3-1."

New Mexico Environment Department (NMED) to Western Refining Southwest LLC (DBA Marathon Gallup Refinery [Refinery]) Comment Letter "Disapproval 2020 Annual Groundwater Monitoring Report" (October 20, 2021)

NMED Comments	Refinery Responses
Comment 10:	**Response 10:**
In the Executive Summary, page 2 of 29, bullet 5, and Section 6.0 (Conclusion), page 26 of 29, bullet 5, the Permittee states, "[i]n the Eastern Boundary wells [OW-14, OW-29, OW-30, OW-50, OW-52, OW-53, OW-54, OW-SS, and OW-56], benzene, toluene, ethylbenzene, and total xylenes (BTEX) were not detected in the analytical data during 2020 with the exception of OW-56." Table 4-2 (Volatile Organic Compounds Analytical Data) indicates that wells OW-14, OW-30, OW-54, and OW-55 were not sampled in 2020 because the groundwater recovery system was installed. Comment 20 of the NMED's November 23, 2020 Disapproval Annual Groundwater Monitoring Report Gallup Refinery - 2019 states, "[i]n order to evaluate the effectiveness of the remediation system, the Permittee must continue to monitor the wells where fluid recovery pumps were installed. Halt the groundwater recovery system at least 48 hours prior to sampling or until groundwater levels equilibrate; then, gauge water level and collect samples from the wells, where SPH is absent. Report the data collected from these wells in the 2020 Annual Groundwater Monitoring Report." The groundwater recovery system must be deactivated and the groundwater samples must be collected from all of the wells, where applicable, include the data in future groundwater monitoring reports. In addition, the benzene concentration in the sample collected from well OW-29 during the December 9, 2020 sampling event is recorded as ND (20 ug/L) in Table 4-2. The limit of detection (LOD) value is presumed to be 20 ug/L, which exceeds the screening level of benzene (5 ug/L). In this case, the presence or absence of benzene where the concentration exceeds	Due to the timing of receiving NMED's November 23, 2020 "Disapproval Annual Groundwater Monitoring Report Gallup Refinery – 2019," all but fourth quarter 2020 data had been collected. Therefore, the direction provided in Comment 20 of the November 23, 2020 Disapproval could not be implemented. Currently, the recovery systems are no longer active and have been removed. For future monitoring events, groundwater samples will be collected from the listed wells unless SPH is present. The statement regarding the limit of detection (LOD) has been acknowledged. All data quality exceptions in future submittals will be identified in the text, tables, or figures where the data are presented.

New Mexico Environment Department (NMED) to Western Refining Southwest LLC (DBA Marathon Gallup Refinery [Refinery]) Comment Letter "Disapproval 2020 Annual Groundwater Monitoring Report" (October 20, 2021)

NMED Comments	Refinery Responses
the applicable screening level remains unknown. All data provided by analyses where the LOD values exceed the screening levels are considered data quality exceptions and cannot be used to demonstrate compliance. Furthermore, all data quality exceptions must be identified in the text, tables, or figures where the data are presented in all future submittals.	
Comment 11:	**Response 11:**
In the Executive Summary, pages 2 and 3 of 29, bullet 5, Section 4.1 (Eastern Boundary Wells Analytical Results), page 18 of 29, paragraph 6, and Section 6.0 (Conclusion), page 26 of 29, bullet 5, the Permittee states, "OW-56 has historically had low level concentrations of benzene (less than 2.5 micrograms per liter [ug/L]), however, during 2020 benzene concentrations were detected at 547 ug/L during the fourth quarter of 2020. OW-56 will continue to be monitored quarterly and reported." Groundwater recovery conducted at wells OW-54 and OW-55 may be facilitating migration of dissolved phase hydrocarbon constituents toward the direction of well OW-56. The Permittee must collect groundwater samples from wells OW-54 and OW-55 to evaluate the possibility and must include a discussion in the next annual report (see also Comment 10).	This comment is acknowledged. OW-54 and OW-55 are scheduled for quarterly sampling. Data will be discussed in the next annual report, as appropriate.

New Mexico Environment Department (NMED) to Western Refining Southwest LLC (DBA Marathon Gallup Refinery [Refinery]) Comment Letter "Disapproval 2020 Annual Groundwater Monitoring Report" (October 20, 2021)

NMED Comments	Refinery Responses
Comment 12:	**Response 12:**
In the Executive Summary, page 3 of 29, bullet 5, Section 4.1 (Eastern Boundary Wells Analytical Results), page 19 of 29, paragraph 1, and Section 6.0 (Conclusion), page 26 of 29, bullet 5, the Permittee states, "MTBE detections and screening level exceedances are generally consistent with historical monitoring data (in the Eastern Boundary monitoring wells)." The statement is not accurate. According to Table 4-2, the MTBE concentrations in the groundwater samples collected from OW-56 notably increased from 11 ug/L (October 2019) to 70.8 ug/L (December 2020). Revise the statement for accuracy.	The Executive Summary, page 3 of 31, bullet 5; Section 4.1 (Eastern Boundary Wells Analytical Results), page 21 of 31; and Section 6.0 (Conclusions), page 28 of 31, bullet 5, were revised for accuracy to state, "Methyl tert butyl ether (MTBE) detections and screening level exceedances are generally consistent with historical monitoring data, with the exception of OW-56. OW-56 MTBE concentrations increased from 11 micrograms per liter (µg/L) (October 2019) to 70.8 µg/L (December 2020)."
Comment 13:	**Response 13:**
In the Executive Summary, page 3 of 29, bullet 6, and Section 6.0 (Conclusion), page 26 of 29, bullet 6, the Permittee states, "BTEX and MTBE in the Tank Farm monitoring wells were detected. Benzene and ethylbenzene exceeded the screening level during all monitoring events during 2020 in the Tank Farm monitoring wells, which is consistent with historic monitoring." Although the statement is true, it is also potentially misleading because constituents other than BTEX and MTBE (e.g., 1,2,4-trimethylbenzene) were detected in the Tank Farm monitoring wells above the screening levels according to Table 4-2. These detections and/or exceedances are not discussed in the Report. In addition, SPH was detected in some Tank Farm monitoring wells (e.g., OW-61) and groundwater samples were not collected from wells where SPH was present. The Tank Farm monitoring wells where SPH was present in 2020 must also be identified in the statement. Revise the Report to include a discussion of all	Based on the conference call with NMED on December 3, 2021, future submittals will discuss the number of detected samples with exceedances rather than addressing all constituents with detections and exceedances. The 2020 revised Report directs the reader to the applicable tables to address detections and exceedances. Text indicating additional constituents were detected beyond benzene, toluene, ethylbenzene, and total xylenes (BTEX) and MTBE. Section 4.0 (Sampling Results), page 20 of 31 has been revised to state, "Figures 4-1 through 4-9 present benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tert butyl ether (MTBE) data results. Other constituents were detected in the monitoring wells (see Tables 4-2 through 4-7) but are not included on the figures."

New Mexico Environment Department (NMED) to Western Refining Southwest LLC (DBA Marathon Gallup Refinery [Refinery]) Comment Letter "Disapproval 2020 Annual Groundwater Monitoring Report" (October 20, 2021)

NMED Comments	Refinery Responses
constituents that had detections/exceedances and also identify the monitoring wells where groundwater samples were not collected due to the presence of SPH. All future submittals must include this information in the appropriate section(s) of the annual reports.	In addition, wells that were not sampled are indicated on the tables with the cause identified within the tables. Text will be added to Sections 4.1 through 4.6, and 4.8 stating, "Wells that were not sampled and the cause (e.g., SPH) are included in Tables 4-2 through 4-6."
Comment 14:	**Response 14:**
In the Executive Summary, page 3 of 29, bullet 9, and Section 6.0 (Conclusion), page 27 of 29, bullet 9, the Permittee states, "BTEX and MTBE were not detected in the solid waste management unit (SWMU) 1 monitoring wells during 2020. These monitoring wells historically have not had detections or exceedances of BTEX." According to Table 4-2, page 24 of 42, SPH was detected in wells GWM-2 and GWM-3 in the first quarter of 2020. Furthermore, Section 4.5 (SWMU 1 Area Analytical Results), page 20 of 29, also states that wells GWM-2 and 3 were not sampled due to the presence of SPH during the first quarter of 2020. However, the statement is misleading because wells GWM-2 and 3 have previously been recorded as dry since 2013 and no groundwater samples would have been collected from 2013 through the first quarter of 2020. Clarify the statement and verify the data in Table 4-2 is correct or discuss the possible cause of SPH appearance in wells GWM-2 and 3 in the revised Report. In addition, according to Table ES-1, page 1 of 12, wells GWM-2 and 3 were recorded as dry throughout all of the 2020 gauging events. Resolve the discrepancy in the revised Report.	Per NMED's Comment 22, Table ES-1 has been removed. The revised report now references Table 3-1. Table 4-2 incorrectly stated "NS – SPH Present" (Not Sampled – Separate Phase Hydrocarbons Present) for GWM-2 and GWM-3 during the first quarter of 2020. Both locations should say "NS – Dry" (Not Sampled – Dry). Table 4-2 has been revised accordingly. This discrepancy was also revised in Tables 4-1, 4-2, 4-4, and 4-5. Section 4.5 (SWMU 1 Area Analytical Results), page 22 of 31, was revised to state, "GWM-2 and 3 were dry during all quarters in 2020 (Table 4-1)."

New Mexico Environment Department (NMED) to Western Refining Southwest LLC (DBA Marathon Gallup Refinery [Refinery]) Comment Letter "Disapproval 2020 Annual Groundwater Monitoring Report" (October 20, 2021)

NMED Comments	Refinery Responses
Comment 15:	**Response 15:**
In the Executive Summary, page 4 of 29, bullet 12, and Section 6.0 (Conclusion), page 27 of 29, bullet 12, the Permittee states, "BTEX has continued to be non-detect in the Western Boundary monitoring wells. MTBE was detected in monitoring wells BW-5B and BW-5C above the screening level during 2020. These results are consistent with previous monitoring events." According to Table 4-2, page 35 of 42, the MTBE concentrations in the samples collected from well BW-5B did not exceed the screening level of 14 ug/L during the 2020 sampling events. In addition, Table 4-2 indicates that well BW-4B was not sampled due to the presence of SPH during the third quarter of 2020. SPH was not previously detected in well BW-4B. Verify whether the statement contains typographical errors in reporting the MTBE exceedance in well BW-5B in Table 4-2 and if SPH was present in BW-4B. If so, correct the error in the revised Report; otherwise, evaluate and discuss the possible cause of SPH presence in well BW-4B in the revised Report. Furthermore, it appears that the MTBE concentrations detected in well BW-5C are increasing. The extent of the MTBE plume west of well BW-5C must be delineated, as originally directed in NMED's January 28, 2019 *Disapproval Work Plan 2015 Annual Groundwater Report Comments*. The Permittee's response to Comment 40 in NMED's March 31, 2021 *Response to Disapproval Annual Groundwater Monitoring Report Gallup Refinery - 2019* states that "[t]he proposed Sonsela well west of OW-1 will be installed during the summer of 2021." State whether the well has been installed and provide the installation date in the revised Report.	The error regarding BW-5B was revised in the Executive Summary, page 4 of 31, bullet 3; Section 4.8 (Western Boundary Wells Analytical Results), page 24 of 31; and Section 6.0 (Conclusions), page 29 of 31, bullet 5, to state, "BTEX has continued to be non-detect in the Western Boundary monitoring wells. MTBE was detected in BW-5B during 2020 but did not exceed the screening level. MTBE in BW-5C was detected above the screening level during 2020. These results are consistent with previous monitoring events." Information regarding the summer 2021 well installations is not relevant to 2020 groundwater data; therefore, it will be discussed in the 2021 Annual Groundwater Monitoring Report. However, the proposed Sonsela well west of OW-1 was not installed because it is located off site. The Refinery submitted the "Well Installation and Abandonment Report" to NMED on November 15, 2021, which includes information regarding the 2021 monitoring well installations.

New Mexico Environment Department (NMED) to Western Refining Southwest LLC (DBA Marathon Gallup Refinery [Refinery]) Comment Letter "Disapproval 2020 Annual Groundwater Monitoring Report" (October 20, 2021)

NMED Comments	Refinery Responses
Comment 16:	**Response 16:**
In the Executive Summary, page 4 of 29, bullet 13, Section 4.9 (Deep Monitoring Wells Analytical Results), page 22 of 29, paragraph 5, and Section 6.0 (Conclusion), page 27 of 29, bullet 13, the Permittee states, "[b]enzene and ethylbenzene were detected above the screening level[s]. OW-12 is located downgradient of the tank farm and will continue to be monitored for BTEX." According to Table 4-1 (2020 Sampling Frequency), page 4 of 4, well OW-12 has been sampled annually. However, since benzene and ethylbenzene have been detected more frequently above the screening levels, the Permittee must increase the sampling frequency for the well to monitor the changes in concentrations. Well OW-12 must be monitored and sampled on a semi-annual basis. Propose the change the sampling frequency for well OW-12 in the upcoming Facility Wide Ground Water Monitoring Work Plan 2022 Update.	OW-12 will be sampled semiannually, and the monitoring frequency has been included in the 2022 Facility-Wide Groundwater Monitoring Work Plan. The Executive Summary, page 4 of 31, bullet 4; Section 4.9 (Deep Monitoring Wells Analytical Results), page 24 of 31; and Section 6.0 (Conclusions), page 29 of 31, bullet 6, have been revised to state, "Benzene and ethylbenzene were detected above the screening level. OW-12 is located downgradient of the tank farm. The monitoring frequency will be changed from annual to semiannual in 2022."
Comment 17:	**Response 17:**
In Section 1.2.1 (Geological Characteristics), page 12 of 29, paragraph 3, the Permittee states, "[t]he regional stratigraphy around the Refinery is shown on Figure 1-2." There is a typographical error in referencing the correct figure number. Figure 1-2 (Site Plan) does not present the regional stratigraphy around the Refinery. Provide the correct figure number or remove the statement from the revised Report.	This statement has been removed from Section 1.2.1 (Geological Characteristics), page 13 of 31.

New Mexico Environment Department (NMED) to Western Refining Southwest LLC (DBA Marathon Gallup Refinery [Refinery]) Comment Letter "Disapproval 2020 Annual Groundwater Monitoring Report" (October 20, 2021)

NMED Comments	Refinery Responses
Comment 18:	**Response 18:**
In Section 2.0 (Monitoring Program), page 14 of 29, paragraph 1, the Permittee states, "[g]roundwater sampling, fluid level measurements, and surface water samples are completed in accordance with the "Approval with Modifications, Disapproval Facility Wide Ground Water Monitoring Work Plan - Updates for 2020" (2020 Work Plan) (MPC 2021a) with the exception of deviations noted in Section 2.3, [and t]he monitoring program analyses were completed to provide a comprehensive understanding of the dissolved phase contamination under the Refinery. These analyses are also included in Table 2-1." The comments included in the NMED's February 16, 2021 *Approval with Modifications Disapproval Facility Wide Ground Water Monitoring Work Plan - Updates for 2020* (February 2021 letter) were not addressed in the Report because the letter was not issued until February 2021 and the field work was already completed in 2020. However, the comments included in the February 2021 letter remain valid and the items listed below must be addressed in the 2021 Report that is to be submitted no later than September 1, 2022. This comment serves as a reminder; no revision required. a. Comment 3a of the NMED's February 2021 letter requires the Permittee to propose to conduct sulfide analysis for pertinent wells in the 2020 Work Plan. Include the sulfide analytical data collected from pertinent wells in the 2021 Report. b. Comment 3b of the NMED's February 2021 letter requires the Permittee to update the monitoring frequency for wells where the proposed monthly gauging was approved. Address the provision in the 2021 Report.	These comments are acknowledged. Responses to NMED's comments are provided below. A. In response to bullet (a), sulfide analysis was not conducted in 2021 because MPC's response to Comment 3a of the NMED's February 2021 letter was discussed in the "Response to Disapproval, Natural Attenuation Assessment and Proposed Work Plan for the Hydrocarbon Seep Area", submitted to NMED on August 27, 2021. Sulfide analysis was included in the 2022 Facility Wide Groundwater Monitoring Work Plan submitted to NMED February 4, 2022. B. This comment has been acknowledged. C. This comment has been acknowledged. D. This comment has been acknowledged. E. This comment has been acknowledged. F. This comment has been acknowledged. This comment has been acknowledged.

New Mexico Environment Department (NMED) to Western Refining Southwest LLC (DBA Marathon Gallup Refinery [Refinery]) Comment Letter "Disapproval 2020 Annual Groundwater Monitoring Report" (October 20, 2021)

NMED Comments	Refinery Responses
c. Comment 3c of the NMED's February 2021 letter requires the Permittee to propose to conduct 1,4-dioxane analysis using EPA Method 8270 SIM for the samples collected from the West LDU in the 2020 Work Plan. Include the 1,4-dioxane analytical data collected from the West LDU in the 2021 Report. d. Comment 3d of the NMED's February 2021 letter requires the Permittee to propose conduct 1,4-dioxane analysis using EPA Method 8270 SIM for samples collected from wells OW-50 and OW-52 in the 2020 Work Plan. Include the 1,4-dioxane analytical data collected from the wells in the 2021 Report. e. Comment 3e of the NMED's February 2021 letter requires the Permittee to propose to analyze for 1,4-dioxane using EPA Method 8270 SIM and 1,2-dibromoethane (EDB) using EPA Method 8011 for groundwater samples collected from well OW-11 in the 2020 Work Plan. Include the required analytical data collected from well OW-11 in the 2021 Report. f. Comment 3f of the NMED'S February 2021 letter requires the Permittee to propose to analyze pesticide analysis for the water samples collected from pond EP-2 using EPA Method 8081 In the 2020 Work Plan. Include the pesticide analytical data collected from pond EP-2 In the 2021 Report. g Comment 3h of the NMED's February 2021 letter requires the Permittee to propose to conduct PFAS analysis for the groundwater samples collected from well OW-63 in the 2020 Work Plan. Include the PFAS analytical data collected from OW-63 in the 2021 Report.	

New Mexico Environment Department (NMED) to Western Refining Southwest LLC (DBA Marathon Gallup Refinery [Refinery]) Comment Letter "Disapproval 2020 Annual Groundwater Monitoring Report" (October 20, 2021)

NMED Comments	Refinery Responses
Comment 19:	**Response 19:**
In Section 2.1 (Groundwater Monitoring Network and Surface Sample Locations), page 14 of 29, paragraph 2, the Permittee provides a list that arranges the monitoring well locations into nine groups. However, the Permittee did not address Comments 1 and 2 from NMED's August 17, 2021 *Direction [Figure for the] Proposed Groundwater Well Groupings* that required (a) PW and OW wells not be included in the same group, and (b) suggested that the former grouping Group B may be more representative of the overall general area. NMED is also of the opinion that the proposed division of the wells is unnecessary because the wells formerly included in Group B may be more representative of the overall general area. Address Comments 1 and 2 from NMED's August 17, 2021 letter in the 2021 Report or explain how the current grouping of the monitoring wells properly represents the areas defined in the response letter. No revision required.	This comment is acknowledged. The letter was received on October 25, 2021 and the comments were addressed in the 2022 Facility Wide Groundwater Monitoring Work Plan submitted to NMED February 4, 2022.
Comment 20:	**Response 20:**
Although Section 2.2 (Regulatory Criteria), pages 14 and 15, includes a discussion of four groundwater screening levels that are compared to the analytical monitoring results, a selection method for determining which groundwater screening levels are applicable to the Facility is not discussed. The selection method is clearly described in Permit Section IV.D.1; therefore, the description must also be included in the text of the revised Report. In addition, Tables 4-2 (Volatile Organic Compounds Analytical Data), 4-3 (Semi-volatile Organic Compounds Analytical Data), 4-4 (Metals (Total) Analytical Data), 4-5 (Metals (Dissolved) Analytical Data), and 4-6 (General	Using the selection method as described in Permit Section IV.D.1, the four groundwater screening levels and the selected screening level are presented in a new table, Table 2-2. Table 2-2 identifies the screening level that is applicable to the associated analyte. Tables 4-2 through 4-6 are revised to show only the selected screening level, rather than listing the four screening levels. Section 2.2 (Regulatory Criteria) has been revised to describe the regulatory selection criteria per the Permit. Section 2.2 (Regulatory Criteria), page 16 of 31, states:

New Mexico Environment Department (NMED) to Western Refining Southwest LLC (DBA Marathon Gallup Refinery [Refinery]) Comment Letter "Disapproval 2020 Annual Groundwater Monitoring Report" (October 20, 2021)

NMED Comments	Refinery Responses
Chemistry and Total Petroleum Hydrocarbon Analytical Data) list the four screening levels (i.e., NMED GW Cleanup Levels, 40 CFR 141.62, NMED Tap Water, and USEPA RSL Tap Water HQ 1.0) for each analyte. However, the Permittee does not identify which screening level is applicable to the associated analyte. Revise the tables to identify the applicable screening level for each analyte (e.g., use yellow highlighted value; refer to the analytical data tables in the 2019 Report).	"Per the RCRA Post-Closure Permit (ND000333211) Section IV.D.1, 'the cleanup levels for all contaminants in groundwater shall be the [Water Quality Control Commission] WQCC groundwater quality standards, 20.6.2.3103 NMAC, the cleanup levels for toxic pollutants calculated in accordance with 20.6.2.7.[T] NMAC, and the drinking water MCLs adopted by EPA under the federal Safe Drinking Water Act (42 U.S.C. §§ 300f to 300j-26) or the New Mexico Environmental Improvement Board (EIB), 20.7.10 NMAC. If both a WQCC water quality standard and an MCL have been established for an individual substance, then the lower of the levels shall be the cleanup level for that substance. The most recent version of NMED's Tap Water Screening Levels listed in Table A-1 of Technical Background Document for Development of Soil Screening Levels (as updated) shall be used to establish the cleanup level if either a WQCC standard or an MCL has not been established for a specific substance. In the absence of an NMED tap water screening level then the EPA Regional Screening Levels for Chemical Contaminants at Superfund Sites (RSLs) for tap water shall be used.' The four cleanup levels as well as the specific cleanup level selected for analytical result comparison are presented in Table 2-2. A fifth cleanup level, NMED TPH, is included on Table 2-2 to compare TPH-DRO, -GRO, and -MRO. Analytical results that exceeded the cleanup levels are discussed in Section 4.0 and noted on the applicable tables."

New Mexico Environment Department (NMED) to Western Refining Southwest LLC (DBA Marathon Gallup Refinery [Refinery]) Comment Letter "Disapproval 2020 Annual Groundwater Monitoring Report" (October 20, 2021)

NMED Comments	Refinery Responses
Comment 21:	**Response 21:**
In Section 2.3 (Deviations from Work Plan), page 15 of 29, bullet 6, the Permittee states, "[a]nalytical results with reporting limits greater than their respective screening levels are noted in Tables 4-2 through 4-7 in italics." It appears that reporting limits greater than any of four screening levels are identified by italicizing the results in the tables. For example, according to Table 4-2, page 36 of 42, all non-detected trichloroethene (TCE) concentrations in the samples collected from the Deep Well Groups are italicized and recorded as "ND(1)". Table 4-2 identifies the screening levels for TCE as (a) 5 ug/L in accordance with (IAW) NMED Groundwater Cleanup Levels, New Mexico Administrative Code 20.6.2.3103, (b) "Not Applicable" IAW Code of Federal Regulations, Chapter 40, Section 141.62 Maximum Contaminant Levels, (c) 2.59 ug/L IAW NMED, Risk Assessment Guidance, Table A-1, Tap Water March 2017, and (d) 0.49 ug/L IAW US EPA Regional Screening Levels, Hazard Quotient 1.0, November 2019. The TCE concentration was reported as "ND(1)" because the Permittee chose the reporting limit (1 ug/L) that exceeded the EPA Regional Screening Level (0.49 pg/L) in Table 4-2. However, according to Permit Section IV.D.1, the applicable screening level for TCE is determined to be 5 ug/L (EPA MCL and NMED Groundwater Cleanup Levels). Therefore, the reporting limit for TCE (1 ug/L) did not exceed the applicable screening level of 5 ug/L and the TCE concentrations do not have to be italicized in this case. Correct all sections and tables, where this issue is identified, in the revised Report. Furthermore, the distinction between regular and italic fonts is difficult to	Tables 4-2 through 4-6 have been revised as described in MPC's Comment 20. Only the applicable screening level is shown on the tables. Italicized and bolded text have been revised per these changes. All sections and tables, where this issue was identified, have been corrected in the revised Report. In response to the distinction between regular and italic fonts, the text size has been enlarged rather than changing the method to identify data exceptions.

New Mexico Environment Department (NMED) to Western Refining Southwest LLC (DBA Marathon Gallup Refinery [Refinery]) Comment Letter "Disapproval 2020 Annual Groundwater Monitoring Report" (October 20, 2021)

NMED Comments	Refinery Responses
distinguish because the font size in the analytical data tables are very small. Use a different method (e.g., red font color or highlighting cells) to identify data quality exceptions in the revised tables.	
Comment 22:	**Response 22:**
In Section 3.0 (Fluid Level Results), page 16 of 29, paragraph 1, the Permittee states, "[f]luid level data and SPH measurements collected during 2020 are summarized in Table 3-1." Tables ES-1 and 3-1 are identical tables that report the same information. Remove one of the tables from the revised Report and correct the references to the table in the appropriate section(s) of the revised Report.	This comment has been acknowledged. Table ES-1 has been removed. The revised report now references Table 3-1.
Comment 23:	**Response 23:**
In Section 3.2 (SPH Detections), page 16 of 29, paragraph 6, the Permittee states, "[i]n the first quarter of 2020, 23 monitoring wells had measurable SPH. During the annual monitoring event during the third quarter of 2020, 39 monitoring wells had measurable SPH. During the fourth quarter of 2020, 38 monitoring wells had measurable SPH." The increase of SPH detection at the site is presumably caused by the October 2019 gasoline release from the truck loading rack. Evaluate and discuss the cause of the increased SPH detection in the revised Report.	While the number of wells with measurable SPH did increase between the first and third quarter, we cannot conclude that the truck loading rack is the only source for the increase. For example, SPH in MKTF-04, MKTF-09, MKTF-16, and MKTF-20 appeared for the first time in the third quarter of 2020. According to data found from the MKTF LIF/HP Investigation ([Revised] Marketing Tank Farm Laser-Induced Fluorescence/Hydraulic Profiling Investigation Report, submitted November 19, 2021), these wells are located within the area of diesel-type product. MKTF-37, MKTF-38, MKTF-47, and MKTF-48 also had SPH for the first time in the third and fourth quarters of 2020. These locations are all east of the truck loading rack. Based on groundwater flow from east to west, it is unlikely the SPH is from the truck loading rack.

New Mexico Environment Department (NMED) to Western Refining Southwest LLC (DBA Marathon Gallup Refinery [Refinery]) Comment Letter "Disapproval 2020 Annual Groundwater Monitoring Report" (October 20, 2021)

NMED Comments	Refinery Responses
	Furthermore, SPH was detected in RW-1, RW-2, RW-5, and RW-6 for the first time in the second quarter of 2020. These wells are located northeast of the truck loading rack. Based on these observations, it does not seem appropriate to conclusively link the increase in SPH thickness across the site to one release. Other factors that could impact measurable SPH thickness could include historical releases, the refinery idle in 2020, seasonal groundwater elevations, or changes in precipitation
Comment 24:	**Response 24:**
In Section 4.0 (Sampling Results), page 18 of 29, paragraph 3, the Permittee states, "[g]enerally volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total and dissolved metals, and general chemistry analyses were performed, as discussed in the following sub-sections." The 2020 sampling results are categorized and discussed by the nine groups (e.g., Eastern Boundary Wells, Tank Farm Wells, Marketing Tank Farm Wells, Wastewater Treatment Area, SWMU 1 Area, LTU Area, Evaporation Ponds, Western Boundary Wells, and Deep Monitoring Wells) in the Report. However, the discussion regarding chemical analyses only focuses on the detection of benzene, toluene, ethylbenzene, and xylenes (BTEX) and methyl-tert-butyl ether (MTBE), which is insufficient because other contaminants of concern (COCs) are present at the site. Provide a discussion for each analyte (e.g., BTEX/MTBE, other VOCs (e.g., chlorinated solvents, 1,4-dioxane), SVOCs, metals, anions, total petroleum hydrocarbons, and separate phase hydrocarbons) and include the discussions	Per Section IV.L.4.h (Analytical Data Results) of the Refinery's Resource Conservation and Recovery Act Post-Closure Permit (2017), "A table summarizing the laboratory analytical data, QA/QC data, applicable cleanup levels and modifications to the sampling program can be substituted for this section. The tables shall include all information required in Permit Section IV.L.4.k." Therefore, referencing tables with the analytical results is appropriate. Analytical results are provided in Tables 4-2 to 4-6. In compliance with NMED Comment 24, a discussion of the analytical results including constituents detected in groundwater, constituents detected in groundwater above the relevant standard, and constituents with elevated detection limits above the relevant standard are presented in Sections 4.1 through 4.9 of the revised Report.

New Mexico Environment Department (NMED) to Western Refining Southwest LLC (DBA Marathon Gallup Refinery [Refinery]) Comment Letter "Disapproval 2020 Annual Groundwater Monitoring Report" (October 20, 2021)

NMED Comments	Refinery Responses
under each section of the revised Report (e.g., Section 4.1.1 for BTEX/MTBE, 4.1.2 for other VOCs). In addition, referencing tables or figures (e.g., Tables 4-2 to 4-6) without including a discussion about the evaluation of the analytical results is not appropriate. Include more detailed discussion of the analytical results in the revised Report.	
Comment 25:	**Response 25:**
In Section 4.1 (Eastern Boundary Wells Analytical Results), page 18 of 29, paragraph 5, the Permittee states, "[t]he 2020 detected analytical results for the Eastern Boundary monitoring wells that exceeded the screening levels are noted in Tables 4-2 through 4-6 as bolded results. Non-detected sampling results with reporting limits greater than the applicable screening levels are noted with italics in the applicable tables." The Permittee must identify all analytes (in addition to BTEX and MTBE) whose concentrations and reporting limits exceeded the applicable screening levels within the appropriate sections of the Report, as well as providing a table that summarizes such analytes and identifies the well locations sampled. This comment also applies to all pertinent sections of the Report (Sections 4.1 through 4.9).	See Refinery Response 24.
Comment 26:	**Response 26:**
In Section 4.9 (Deep Monitoring Wells Analytical Results), page 22 of 29, paragraph 6, the Permittee states, "[p]roduction well PW-2 was sampled in both the third and fourth quarters of 2020. The analytical data for the fourth quarter of 2020 for PW-2 was rejected based on data qualifiers as described in Section 4.10. However, the fourth quarter 2020 monitoring event was not required per the 2020 Work Plan (MPC 2021a)." Explain why	Fourth quarter sampling of PW-2 was an error. The VOC data were rejected because VOCs were analyzed outside of the method holding time of 7 days. The VOC analytes were not detected in sample PW-2 and therefore, results were qualified as R to indicated rejected data. A summary of this explanation is provided in Appendix D3.

New Mexico Environment Department (NMED) to Western Refining Southwest LLC (DBA Marathon Gallup Refinery [Refinery]) Comment Letter "Disapproval 2020 Annual Groundwater Monitoring Report" (October 20, 2021)

NMED Comments	Refinery Responses
well PW-2 was sampled in the fourth quarter of 2020 even though it was not required in the revised Report. In addition, Section 4.10 does not explain why this particular data was rejected. Also explain why the data collected from well PW-2 was rejected in the revised Report.	Section 4.10.1 (QA/QC Analytical Results), page 25 of 31, was revised to state, "The VOC data from PW-2 were rejected because VOCs were analyzed outside of the method holding time (7 days). The VOC analytes were not detected in sample PW-2 and, therefore, the results were qualified as R to indicated rejected data."
Comment 27:	**Response 27:**
In Section 5.0 (Remediation Activities), page 25 of 29, paragraphs 1 and 3, the Permittee states, "free phase SPH is recovered on-site from monitoring wells with SPH greater than 0.5 inches [and r]ecovery data for 2020 is presented in Table 5-1." Although Table 5-1 (Recovery Well Data) provides the recovery data from the standpipes and retention ditch, it does not include any recovery data collected from the monitoring wells that contained SPH where the measured thickness was greater than 0.5 inches. Since the recovery activities for the monitoring wells are discussed in Section 5.0, Table 5-1 must be revised to include the relevant data from the monitoring wells that contained a SPH thickness greater than 0.5 inches.	Recovery activities for the monitoring wells did not begin until January 2021 and will be included in the 2021 annual report, if applicable. This statement has been removed from the revised Report.
Comment 28:	**Response 28:**
In Section 5.0 (Remediation Activities), page 25 of 29, paragraph 2, the Permittee states, "[i]n addition to fluid recovery, the SWMU 1 investigation was conducted during the week of January 13, 2020 which included sediment sampling to determine sediment volume and chemical characterization." The activities and discussion regarding the SWMU 1 investigation are not relevant to the groundwater remediation activities at the site. Remove the discussion from the revised Report.	The discussion regarding the SWMU 1 investigation has been removed from Section 5.0 (Remediation Activities), page 27 of 31, paragraph 2.

New Mexico Environment Department (NMED) to Western Refining Southwest LLC (DBA Marathon Gallup Refinery [Refinery]) Comment Letter "Disapproval 2020 Annual Groundwater Monitoring Report" (October 20, 2021)

NMED Comments	Refinery Responses
Comment 29:	**Response 29:**
According to Tables ES-1 and 3-1 (Fluid Level Monitoring (2020)), the product thickness reading in well GWM-l during the July 1, 2020 gauging event is recorded as - (negative) 0.45 feet. There appears to be a typographical error in reporting the product thickness. Similarly, the hydrograph for GWM-1 included in Appendix B-2 depicts the SPH as under the water table. Correct the error in the revised Report.	Upon review of the data, it was found that the information was written incorrectly on the field forms. The values for depth-to-water and depth-to-product have been reversed to show the correct, positive value for product thickness. A note has been added to Table 3-1 and Appendix B-1 to describe the change and the explanation.
Comment 30:	**Response 30:**
Table 2-1 (Groundwater Monitoring Program) provides information regarding the sampling frequency, fluid level measurement, water quality parameters, and analyses for each well. Table 4-1 (2020 Sampling Frequency) also provides the same information regarding the sampling frequency for each well. The purpose of Table 4-1 is unclear and appears to be redundant. Explain the relevance of Table 4-1 in the Report or remove Table 4-1 from the revised Report, as appropriate.	Table 2-1 presents the sample location, sampling frequency, fluid level measurement requirements, and a listing of the water quality and analytical parameters. Table 4-1 provides the monitoring groups, sample location, and detailed information for each quarterly monitoring event, including the sample date and the reason if the well was not sampled during that quarter. Common information shared between the two tables are the sample location and frequency. The Refinery proposes to consolidate the two tables into one in future reports.
Comment 31:	**Response 31:**
Tables 4-2 (Volatile Organic Compounds Analytical Data), 4-3 (Semi-volatile Organic Compounds Analytical Data), 4-4 (Metals (Total) Analytical Data), 4-5 (Metals (Dissolved) Analytical Data), and 4-6 (General Chemistry and Total Petroleum Hydrocarbon Analytical Data) list four screening levels (a) NMED Groundwater Cleanup Levels, New Mexico Administrative Code 20.6.2.3103, (b) Code of Federal Regulations, Chapter 40, Section 141.62 Maximum Contaminant Levels, (c) NMED, Risk Assessment Guidance, Table A-1, Tap Water, March 2017, and (d) US EPA Regional Screening Levels,	Tables 4-2 (Volatile Organic Compounds Analytical Data), 4-3 (Semi-Volatile Organic Compounds Analytical Data), 4-4 (Metals (Total) Analytical Data), 4-5 (Metals (Dissolved) Analytical Data) have been revised per NMED's 2019 Tap Water Screening Levels Table A-1 of the Technical Background Document for Development of Soil Screening Levels and compared as described in Permit Section IV.D.1.

New Mexico Environment Department (NMED) to Western Refining Southwest LLC (DBA Marathon Gallup Refinery [Refinery]) Comment Letter "Disapproval 2020 Annual Groundwater Monitoring Report" (October 20, 2021)

NMED Comments	Refinery Responses
Hazard Quotient 1.0, November 2019 for each analyte. However, the Permittee did not reference the most recent versions of the screening levels. NMED updated the Risk Assessment Guidance in February 2019. Similarly, USEPA updated Regional Screening Levels in May 2021. Revise the tables to include the most recent screening levels and compare the site concentrations as described in Permit Section IV.D.1. Note that the Permittee is only required to use most recent screening levels available at the time the data was collected and analyzed.	Screening levels will be reviewed prior to submittal of future annual reports to ensure the current standards are used for comparison in the report tables.
Comment 32:	**Response 32:**
The top 1/3 of the background images provided in the hard copy of Figures ES-l (SPH Thickness Map (2020) 3rd Quarter 2020), 1-2 (Site Plan), 2-1 (Well Groups), 3-2 (Chinle/Alluvium Interface Aquifer Potentiometric Surface Map (2020)), and 3-4 (SPH Thickness (2020) 3rd Quarter 2020) is blank. However, the same issue is not found in any of the electronic copies. Provide replacement pages for these figures with the revised Report.	This comment is acknowledged. Hard copy replacement figures have been included with the revised Report.
Comment 33:	**Response 33:**
Figures ES-1 and 3-4 (SPH Thickness (2020) 3rd Quarter 2020) are identical figures. Explain the relevance of the identical figures or remove one of the figures from the revised Report. Revise all appropriate sections of the Report, as necessary.	This comment has been acknowledged. Figure ES-1 has been removed. The revised Report now references Figure 3-4.

New Mexico Environment Department (NMED) to Western Refining Southwest LLC (DBA Marathon Gallup Refinery [Refinery]) Comment Letter "Disapproval 2020 Annual Groundwater Monitoring Report" (October 20, 2021)

NMED Comments	Refinery Responses
Comment 34:	**Response 34:**
Appendix B-2 (Hydrographs) includes three sections divided by page numbers (i.e., the first, second, and third sections include pages 1 through 5, 1 through 90, and 1 through 13, respectively) but does not identify each section. It is NMED's observation that each section presumably categorizes hydrographs for the wells installed in three separate aquifers (i.e., upper sand unit, Chinle/alluvium interface, and Sonsela). Label each section in the revised Report.	The hydrograph titles in Appendix B-2 have been revised to include the aquifers (Alluvial/Fluvial upper sand, Chinle/Alluvium, Sonsela) that the wells belong to. In addition, section dividers have been included in the revised Report.
Comment 35:	**Response 35:**
Appendix B-2 (Hydrographs) includes the groundwater elevation data collected in 2021. Since this Report pertains to the data collected in 2020, it is not necessary to present the data collected in 2021. In addition, the data collected in 2021 was not part of the evaluation or discussed in the Report. Remove the data from the Report.	Appendix B-2 has been revised to remove 2021 data.

ATTACHMENT B

REDLINE/STRIKEOUT

REVISED 2020 ANNUAL GROUNDWATER MONITORING REPORT

(ELECTRONIC COPY)

2020 ANNUAL GROUNDWATER MONITORING REPORT

WESTERN REFINING SOUTHWEST LLC

D/B/A MARATHON GALLUP REFINERY

~~2020 ANNUAL GROUNDWATER MONITORING REPORT~~

SEPTEMBER 1, 2021

REVISED MARCH 11, 2022

Executive Summary

Analytical groundwater monitoring activities were completed at the Western Refining Southwest LLC~~,~~ ~~(doing business as~~ (DBA Marathon Gallup Refinery) Gallup Refinery (Refinery) during 2020. Activities were not completed during the second quarter of 2020 due to the COVID-19 pandemic. Semiannual sampling was conducted during the third and fourth quarters of 2020. Activities include fluid level gauging, analytical sampling, and recovery activities. Groundwater monitoring at the Refinery is pursuant to the Resource Conservation and Recovery Act Post-Closure Permit and in accordance with the annual Facility Wide Groundwater Monitoring Work Plan.

The groundwater monitoring network at the Refinery consists of 107 locations. In addition, monitoring is conducted at production wells, surface sample locations, and leak detection units. These locations are sampled quarterly, semiannually, and annually as specified in the 2020 Facility Wide Groundwater Monitoring Work Plan (MPC 2021a). Fluid levels are measured monthly, quarterly, semiannually, and annually and depth to water and separate phase hydrocarbon depths were collected during 2020. These results were consistent with historical monitoring.

The groundwater monitoring analytical results were compared against the New Mexico Administrative Code Water Quality Commission 20.6.2.3103, Environmental Protection Agency (EPA) Maximum Contaminant Levels, New Mexico Environment Department Tap Water Screening Levels, and EPA Tap Water Screening Levels. Analytical results were consistent with historical results and are summarized below.

- ~~•~~ The 2020 depth to groundwater in monitoring wells screened in the Alluvial/Fluvial ~~aquifer are consistently dry.~~ upper sand aquifer ranged from a high of 20.33 ft below ground surface (bgs) (BW-~~2A had~~5A in June 2020) to a low of 35.42 ft-bgs (BW-4A in March 2020). Based on the measured water level column in BW-4A and BW-5A (less than 0.5 ft), water detected ~~approximately 32.93 ft below measuring point (bmp) during the third quarter of 2020.~~
- ~~•~~ ~~The~~ in these wells may be due to previous accumulation in the well sump rather than representative of the groundwater potentiometric surface (see Table 3-1).
- The 2020 depth to groundwater in monitoring wells screened in the Chinle/Alluvium aquifer ranged from ~~4.59~~a high of 1.07 ft ~~bmp~~-bgs (MKTF-~~28~~27 in February 2020) to ~~39.86~~a low of 41.96 ft ~~bmp~~-bgs (BW-4B in June 2020).
- The 2020 depth to groundwater in monitoring wells screened in the Sonsela aquifer ranged from ~~1.~~a high of 0.21 ft above ground surface inside the well casing (BW-5C in March 2020) to a low of 45 ~~ft bmp (OW-01) to 46.45 ft bmp~~.37 ft-bgs (OW-12~~). OW-01 and OW-10 are~~ in November 2020). BW-5C is on the northwest end of the property and is considered artesian.

- Measurable separate phase hydrocarbon (SPH) was detected ~~in 39~~during all four quarters in 2020: 23 monitoring wells during ~~the third quarter of 2020 (Table ES-1~~first quarter, 29 monitoring wells during second quarter, 37 monitoring wells during third quarter (i.e., the annual event), and ~~Figure ES-1).~~36 monitoring wells during fourth quarter. The measured SPH thickness ranged from ~~less than~~ 0.01 ft in multiple locations to 6.41 ft (MKTF-33) across the site~~. MKTF-45 had the thickest SPH in 2020 during the first quarter at 9.02 ft. Generally,~~ during the 2020 annual event. SPH thicknesses ~~have been decreasing at the site with the exception of wells: MKTF-13, MKTF-48, GWM-1, OW-65, and OW-61 (Figure ES-1).~~measured in 2020 are presented in Table 3-1.
- In the Eastern Boundary wells, benzene, toluene, ethylbenzene, and total xylenes (BTEX) were not detected in the analytical data during 2020 with the exception of OW-56. OW-56 has historically had low level concentrations of benzene (less than 2.5 micrograms per liter [µg/L]), however, during 2020 benzene concentrations were detected at 547 µg/L during the fourth quarter of 2020. OW-56 will continue to be monitored quarterly and reported. Methyl tert butyl ether (MTBE) was detected in all of the Eastern Boundary monitoring wells sampled during 2020. MTBE detections and screening level exceedances are generally consistent with historical monitoring data~~.~~, with the exception of OW-56. OW-56 MTBE concentrations increased from 11 ug/L (October 2019) to 70.8 ug/L (December 2020).
- BTEX and MTBE in the Tank Farm monitoring wells were detected. Benzene and ethylbenzene exceeded the screening level during all monitoring events during 2020 in the Tank Farm monitoring wells, which is consistent with ~~historic~~historical monitoring. Toluene was detected during the 2020 monitoring events below the screening level which is consistent with historical monitoring results. MTBE was detected and exceeded the screening level in OW-58 and OW-58A during 2020. OW-57 and OW-63 exceeded the screening level for MTBE in two of the three quarters of 2020.
- In the Marketing Tank Farm (MKTF) Area, benzene was consistently detected above the screening level in monitoring wells within areas near the presence of SPH (Figure ~~ES-1~~3-4). Detections of ethylbenzene, toluene, and total xylenes were generally present in monitoring wells with elevated benzene detections with the exception of MKTF-38 during the first quarter of 2020~~-~~. MTBE was detected above the screening level in the southeast and southwest portion of the MKTF area and in the ~~north east~~northeast area. The detections for benzene and MTBE are generally consistent with historical results however, there are several instances where SPH is intermittently observed in the wells. Monitoring wells that have SPH are evacuated using a vacuum truck on a monthly basis.
- BTEX and MTBE have historically been detected in the WWT area monitoring wells. Monitoring wells that were sampled during 2020 continued to have elevated detections of benzene, ethylbenzene, and MTBE that are above the screening levels. The upgradient well NAPIS-1 has

consistently had SPH and could not be sampled in 2020. In addition, it should be noted that benzene concentrations further upgradient in MKTF-49 and MKTF-50 are one to two orders of magnitude higher than concentrations observed in NAPIS-2 which had the highest benzene detects in the WWT area wells. Toluene and total xylenes were detected during 2020 but did not exceed the screening levels, similar to ~~historic~~historical results.

- BTEX and MTBE were not detected in the solid waste management unit (SWMU) 1 monitoring wells during 2020. These monitoring wells historically have not had detections or exceedances of BTEX.
- BTEX and MTBE were not detected in the land treatment unit area monitoring wells with the exception of MTBE in SMW-2. MTBE did not exceed the screening level in SWM-2 during 2020. SWM-2 has historically had detections of MTBE less than the screening level.
- In the Evaporation Ponds and outfall locations, BTEX and MTBE were reported as not detected during the two semiannual monitoring events in 2020. This is generally consistent with ~~historic~~historical results.
- BTEX has continued to be non-detect in the Western Boundary monitoring wells. MTBE was detected in ~~monitoring wells~~ BW-5B ~~and~~during 2020 but did not exceed the screening level. MTBE in BW-5C was detected above the screening level during 2020. These results are consistent with previous monitoring events.
- BTEX was reported as non-detect in the deep monitoring wells with the exception of OW-12. OW-12 has historically not had detections of BTEX, however, BTEX was detected during the third quarter of 2020. Benzene and ethylbenzene were detected above the screening level. OW-12 is located downgradient of the tank farm ~~and~~. The monitoring frequency will ~~continue~~be changed from annual to ~~be monitored for BTEX~~semiannual in 2022. MTBE was detected in all of the deep monitoring wells with the exception of OW-11. The MTBE monitoring data are generally consistent with historical analytical results. Per the Response to Approval with Modifications, Revised Investigation Work Plan North Drainage Ditch Area (MPC 2021c), a new monitoring well adjacent to OW-12 will be installed in the Chinle/~~Alluvial~~Alluvium aquifer interface, which will allow for additional understanding of BTEX concentrations in this area. ~~-~~ This new well will be monitored and reported on in the 2021 Annual Monitoring Report.
- Recovery activities will continue to take place and will be summarized in the Hydrocarbon Interim Measures Seep Reports, submitted quarterly to NMED. SPH recovery efforts appear to be having a positive impact on SPH thicknesses across the site.

Gauging and sampling requirements will continue in 2021 and will meet the most current NMED-approved Facility-Wide Groundwater Monitoring Work Plan. The 2021 Annual Groundwater Monitoring

Report will be submitted no later than September 1, 2022. Site assessments will take place as required and NMED will be notified of remediation activities.



Table of Contents

Executive Summary 2
List of Tables 8
List of Figures 9
List of Appendices 10
List of Acronyms 11
1.0 Introduction 13
1.1 Facility Information 13
1.2 Site Characteristics 14
1.2.1 Geological Characteristics 14
1.2.2 Groundwater Characteristics 14
2.0 Monitoring Program 16
2.1 Groundwater Monitoring Network and Surface Sample Locations 16
2.2 Regulatory Criteria 16
2.3 Deviations from Work Plan 17
3.0 Fluid Level Results 19
3.1 Potentiometric Surface 19
3.2 SPH Detections 20
4.0 Sampling Results 21
4.1 Eastern Boundary Wells Analytical Results 21
4.2 Tank Farm Wells Analytical Results 23
4.3 Marketing Tank Farm Wells Analytical Results 24
4.4 Wastewater Treatment Area Analytical Results 26
4.5 SWMU 1 Area Analytical Results 28
4.6 LTU Area Analytical Results 29
4.7 Evaporation Ponds Analytical Results 30
4.8 Western Boundary Wells Analytical Results 32
4.9 Deep Monitoring Wells Analytical Results 33
4.10 QA/QC Analytical Results 35
4.10.1 Rejected Data 35

Received by OCD: 3/11/2022 2:16:23 PM



4.10.2 Field Blanks 35
4.10.3 Trip Blanks 36
4.10.4 Equipment Blanks 36
4.10.5 Field Duplicates 36
5.0 Remediation Activities 37
6.0 Conclusions 38
7.0 References 41
Tables .....
Figures .....
Appendix A – 2020 Field Logs .....
Appendix B – Historical Fluid Level Measurements .....
Appendix C – 2020 Laboratory Analytical Reports .....
Appendix D – 2020 Data Validation Reports .....

Released to Imaging: 11/23/2022 10:12:17 AM

List of Tables

~~ES-1. Fluid Level Monitoring (2020),~~2-1. Groundwater Monitoring Program, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

2-2. Selected Screening Levels~~2-1. Groundwater Monitoring Program~~, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

3-1. Fluid Level Monitoring (2020), Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-1. 2020 Sampling Frequency, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-2. Volatile Organic Compounds Analytical Data, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-3. Semi-volatile Organic Compounds Analytical Data, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-4. Metals (Total) Analytical Data, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-5. Metals (Dissolved) Analytical Data, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-6. General Chemistry and Total Petroleum Hydrocarbon Analytical Data, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-7. Field Parameters (2020), Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

5-1. Recovery Well Data, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

List of Figures

~~ES-~~1~~. SPH Thickness Map (2020), Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico~~

~~-~~1-~~1. Site Location and~~ . Topographical ~~Features~~Map, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

1-2. Site Plan, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

2-1. Well Groups, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

3-1. Alluvial/Fluvial Upper Sand Aquifer Potentiometric Surface Map (2020), Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

3-2. Chinle/Alluvium ~~Interface~~ Aquifer Potentiometric Surface Map (2020), Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

3-3. Sonsela Aquifer Potentiometric Surface Map (2020), Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

3-4. SPH Thickness Map (2020), Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-1. Eastern Boundary Monitoring Wells, BTEX and MTBE, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-2. Tank Farm Monitoring Wells, BTEX and MTBE, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-3. Marketing Tank Farm Monitoring Wells, BTEX and MTBE, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-4. Wastewater Treatment Area Monitoring Wells, BTEX and MTBE, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-5. SWMU 1 Monitoring Wells, BTEX and MTBE, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-6. LTU Monitoring Wells, BTEX and MTBE, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-7. Evaporation Pond Samples, BTEX and MTBE, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-8. Western Boundary Monitoring Wells, BTEX and MTBE, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-9. Deep Monitoring Wells, BTEX and MTBE, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

List of Appendices

A. 2020 FIELD LOGS

A-1. 1ST QUARTER FIELD LOGS

A-2. 3RD QUARTER FIELD LOGS

A-3. 4TH QUARTER FIELD LOGS

B. HISTORICAL FLUID LEVEL MEASUREMENTS

B-1. HISTORICAL FLUID LEVEL MONITORING (2014-2020)

B-2. HYDROGRAPHS

B-2A. BW-1A HISTORICAL GROUNDWATER ELEVATIONS AND SPH THICKNESS – ALLUVIAL/FLUVIAL UPPER SAND AQUIFER

B-2B BW-1B HISTORICAL GROUNDWATER ELEVATIONS AND SPH THICKNESS – CHINLE/ALLUVIUM AQUIFER

B-2C. BW-1C HISTORICAL GROUNDWATER ELEVATIONS AND SPH THICKNESS – SONSELLA AQUIFER

C. 2020 LABORATORY ANALYTICAL REPORTS

C-1. 1ST QUARTER ANALYTICAL REPORTS

C-2. 3RD QUARTER ANALYTICAL REPORTS

C-3. 4TH QUARTER ANALYTICAL REPORTS

D. 2020 DATA VALIDATION REPORTS

D-1. 1ST QUARTER DATA VALIDATION REPORTS

D-2. 3RD QUARTER DATA VALIDATION REPORTS

D-3. 4TH QUARTER DATA VALIDATION REPORTS



List of Acronyms

%	percent
~~bmp~~bgs	below ~~measuring point~~ground surface
BTEX	benzene, toluene, ethylbenzene, and total xylenes
cm/sec	centimeters per second
DRO	diesel range organics
EPA	Environmental Protection Agency
ft	feet
ft/ft	feet per foot
GRO	gasoline range organics
LDU	leak detection unit
LTU	land treatment unit
MKTF	Marketing Tank Farm
MTBE	methyl tert butyl ether
msl	above mean sea level
NAPIS	New American Petroleum Institute Separator
NM	New Mexico
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
ORO	oil range organics
QA/QC	quality assurance/quality control
RCRA	Resource Conservation and Recovery Act
Refinery	Western Refining Southwest LLC (DBA Marathon Gallup Refinery)
RPD	relative percent difference
SPH	separate phase hydrocarbon
SWMU	solid waste management unit
SVOC	semi-volatile organic compound
TPH	total petroleum hydrocarbons
µg/L	micrograms per liter

VOC	volatile organic compound
WQCC	Water Quality Control Commission
WWT	wastewater treatment

1.0 Introduction

This report documents the groundwater gauging and sampling events for 2020, as it pertains to the Western Refining Southwest LLC (~~doing business as~~DBA Marathon Gallup Refinery) Gallup Refinery (Refinery). The Refinery is located at Exit 39 on Interstate I-40, approximately 17 miles east of Gallup, New Mexico (NM), in Jamestown, NM (Figure 1-1). This report is submitted pursuant to the Refinery's Resource Conservation and Recovery Act (RCRA) Post-Closure Permit (NM000333211) and contains the information the Refinery is required to report annually.

This report presents and evaluates the 2020 monitoring data outlined below:

- Fluid Level Gauging – Fluid levels are measured at the Refinery on a monthly, quarterly, semiannual, and annual basis. Results for groundwater fluid levels were generally similar to those measured in prior years. These data are detailed in Section 3.0.
- Analytical Groundwater Data – Groundwater samples are collected quarterly and annually each year. Results for groundwater samples are compared against the applicable New Mexico Environment Department (NMED) and the Environmental Protection Agency (EPA) screening levels. The analytical results are discussed in Section 4.0.
- Analytical Evaporation Pond Data – Evaporation pond samples are collected semiannually as surface samples each year. Results for the surface samples are compared against the applicable NMED and the EPA screening levels. The analytical results are discussed in Section 4.0.
- Analytical Outfall Data – STP-1 to EP-2 is monitored quarterly. In addition, other outfalls at the Refinery are collected following major storm events, if applicable. Only STP-1 to EP-2 was sampled during 2020. Results for the outfall samples are compared against the applicable NMED and the EPA screening levels. The analytical results are discussed in Section 4.0.
- Remediation Activities – Ongoing recovery activities take place at the Refinery. Activities completed during 2020 are described in Section 5.0.

1.1 Facility Information

Built in the 1950s, the Refinery is located within a rural and sparsely populated area east of Gallup, NM. The nearest population centers are the Pilot Flying J Travel Center refueling plaza, the Interstate 40 corridor, and a small cluster of residential homes located on the south side of Interstate 40 approximately 2 miles southwest of the Refinery (Jamestown).

The Refinery is currently indefinitely idled as of October 9, 2020. During operation, the Refinery was a crude oil refining and petroleum products manufacturing facility. There were no organic chemicals, plastics, or synthetic fibers manufactured that contributed to the process flow of wastewater. The Refinery did not manufacturer lubricating oils. As a result of the processing steps, the Refinery



produced a wide range of petroleum products including propane, butane, unleaded gasoline, diesel, residual fuel, and commercial products of fertilizer and solid elemental sulfur.

When the Refinery was operating, it primarily received crude oil via two six-inch diameter pipelines from the Four Corners Area, which entered the Refinery property from the north. In addition, the Refinery also received natural gasoline feedstock via a four-in diameter pipeline that comes in from the west along the Interstate 40 corridor from the Western Refining Southwest LLC – Wingate Plant. Crude oil and other products also arrived at the Facility via railroad cars. These feed stocks were then stored in tanks until refined into products.

1.2 Site Characteristics

The Refinery is situated in the high desert plain on the western flank of the Continental Divide. The surrounding land is comprised primarily of public and private lands used for cattle and sheep grazing.

Site topographic features include high ground in the southeast gradually decreasing to a lowland fluvial plain to the northwest. Elevations on the Refinery property range from 7,040 feet (ft) to 6,860 ft. Surface soils within most of the area of investigation are primarily Rehobeth silty clay loam.

1.2.1 Geological Characteristics

Based on existing boring logs, shallow subsurface fluvial and alluvial soils are comprised of primarily clays and silts with minor inter-bedded sand layers. Very low permeability bedrock (e.g., claystones and siltstones) underlie the surface soils and effectively form an aquitard. The Chinle Group, from the Upper Triassic period, crops out over a large area on the southern margin of the San Juan Basin. The uppermost recognized local Formation is the Petrified Forest Formation. The Sonsela Sandstone bed is the uppermost recognized regional aquifer. Aquifer tests of the Sonsela Sandstone bed northeast of Prewitt, NM indicated a transmissivity of greater than 100 square ft per day (Stone et al. 1983). The highest point of the Sonsela Sandstone occurs southeast of the Refinery and slopes downward to the northwest as it passes under the Refinery. The Sonsela Sandstone forms a water-bearing reservoir with artesian conditions throughout the central and western portions of the Refinery property. ~~The regional stratigraphy around the Refinery is shown on Figure 1-2.~~

1.2.2 Groundwater Characteristics

Three aquifers sit below the Refinery: the Alluvial/Fluvial upper sand aquifer~~,~~ (previously referred to as the Upper Sand Unit), the Chinle/Alluvium aquifer, and the Sonsela aquifer. The 810-acre Refinery property site is located on a layered geologic formation. Surface soils generally consist of fluvial and alluvial deposits, primarily clay and silt with minor inter-bedded sand layers. Below the surface layer is the Chinle Formation, which consists of very low permeability clay stones and siltstones that comprise the shale of this formation. As such, the Chinle Formation effectively serves as an aquitard. Interbedded within the Chinle Formation is the Sonsela Sandstone bed, which represents the uppermost potential aquifer in the region. The Sonsela Sandstone bed lies within and parallels the dip of the Chinle



Formation. As such, its high point is located southeast of the Refinery and it slopes downward to the northwest as it passes under the Refinery. Due to the confinement of the Chinle Formation aquitard, the Sonsela Sandstone bed acts as a water-bearing reservoir and is artesian at its lower extremis. Artesian conditions exist through much of the central and western portions of the Refinery property. Wells screened in the three aquifers are shown on Figure 1-2.

Groundwater flow within the Chinle Formation is extremely slow and typically averages less than 10^{-10} centimeters per second (cm/sec) (i.e., less than 0.01 feet per year). Groundwater flow within the surface soil layer, above the Chinle Formation, is highly variable due to the presence of complex and irregular stratigraphy including sand stringers, cobble beds, and dense clay layers. As such, hydraulic conductivity may range from 10^{-8} cm/sec (approximately 0.01 foot per year) in the clay soil layers located near the surface and up to 10^{-2} cm/sec (approximately 10,000 feet per year) in the gravelly sands immediately overlying the Chinle Formation.

Shallow groundwater located under Refinery property generally flows along the upper contact of the Chinle Formation. Although the prevailing regional flow direction is from the southeast and toward the northwest, in the tank farm area flow is in a northeasterly direction, and in the southern marketing area flow is generally in a westerly direction.

The diverse properties and complex, irregular stratigraphy of the surface soils across the Refinery cause a wide range of hydraulic conductivity ranging from less than 10^{-2} cm/sec (approximately 10,000 feet per year) for gravel-like sands immediately overlying the Petrified Forest Formation to 10^{-8} cm/sec (approximately 0.01 foot per year) in the clay soils located near the surface. Generally, shallow groundwater at the Refinery follows the upper contact of the Petrified Forest Formation (Chinle Group) with prevailing flow from the southeast to the northwest, although localized areas may have varying flow directions based on the subsurface geology.

2.0 Monitoring Program

Groundwater monitoring at the Refinery is pursuant to the RCRA Post-Closure Permit (NM000333211). Groundwater sampling, fluid level measurements, and surface water samples are completed in accordance with the "Approval with Modifications, Disapproval Facility Wide Ground Water Monitoring Work Plan – Updates for 2020" (2020 Work Plan) (MPC 2021a) with the exception of deviations noted in Section 2.3. The groundwater monitoring network at the Refinery consists of 107 locations. This network includes 90 monitoring wells in the Chinle ~~formation~~/Alluvium aquifer, 13 monitoring wells in the Sonsela ~~formation~~aquifer, and 5 monitoring wells in the Alluvial ~~formation~~/Fluvial upper sand aquifer. In addition to the monitoring wells, there are also three production wells at the Refinery: PW-2, PW-3, and PW-4. There are 11 surface water samples at the Refinery that are collected at the Evaporation Ponds. Three Leak Detection Units (LDUs) are monitored and are associated with the New American Petroleum Institute Separator (NAPIS). There is also one outfall monitoring location near the Evaporation Ponds, STP-1 to EP-2. The groundwater monitoring network is sampled quarterly, semiannually, and annually. The frequency of the monitoring program is listed in Table 2-1. The monitoring program analyses were completed to provide a comprehensive understanding of the dissolved phase contamination under the Refinery. These analyses are also included in Table 2-1.

2.1 Groundwater Monitoring Network and Surface Sample Locations

The monitoring well program is broken into nine groups. The groups were selected based on areas of the Refinery and are organized from upstream to downstream. The Refinery production wells are included in the deep monitoring well group. The nine groups are presented below and shown on Figure 2-1:

- Eastern Boundary
- Tank Farm
- Marketing Tank Farm
- Wastewater Treatment (WWT)
- Solid Waste Management Unit (SWMU) 1
- Land Treatment Unit (LTU)
- Evaporation Ponds
- Western Boundary
- Deep Monitoring Wells

2.2 Regulatory Criteria

Groundwater analytical monitoring results are compared against the following screening levels:



- Water Quality Control Commission New Mexico Administrative Code (NMAC) 20.6.2.3103
- EPA Drinking Water Maximum Contaminant Levels (MCL)
- NMED Tap Water Screening Levels (2019)
- EPA Tap Water Screening Levels, Hazard Quotient of 1.0

~~The cleanup levels are defined in the RCRA Post-Closure Permit (ND000333211) and are presented in the analytical tables in Section 4.0.~~Per the RCRA Post-Closure Permit (ND000333211) Section IV.D.1, "the cleanup levels for all contaminants in groundwater shall be the [Water Quality Control Commission] WQCC groundwater quality standards, 20.6.2.3103 NMAC, the cleanup levels for toxic pollutants calculated in accordance with 20.6.2.7.[T] NMAC, and the drinking water MCLs adopted by EPA under the federal Safe Drinking Water Act (42 U.S.C. §§ 300f to 300j-26) or the New Mexico Environmental Improvement Board (EIB), 20.7.10 NMAC. If both a WQCC water quality standard and an MCL have been established for an individual substance, then the lower of the levels shall be the cleanup level for that substance.

The most recent version of NMED's Tap Water Screening Levels listed in Table A-1 of Technical Background Document for Development of Soil Screening Levels (as updated) shall be used to establish the cleanup level if either a WQCC standard or an MCL has not been established for a specific substance. In the absence of an NMED tap water screening level then the EPA Regional Screening Levels for Chemical Contaminants at Superfund Sites (RSLs) for tap water shall be used."

The four cleanup levels as well as the specific cleanup level selected for analytical result comparison are presented in Table 2-2. A fifth cleanup level, NMED Total Petroleum Hydrocarbons (TPH), is included on Table 2-2 to compare TPH-diesel range organics (DRO), -gasoline range organics (GRO), and -oil range organics (ORO) and motor oil. Analytical results that exceeded the cleanup levels are discussed in Section 4.0 and noted on the applicable tables.

2.3 Deviations from Work Plan

During 2020, field activities were conducted in accordance with the 2020 Work Plan (MPC 2021a) with the following exceptions:

- Monitoring activities did not take place during the second quarter of 2020 due to the COVID-19 pandemic. Therefore, semiannual sampling took place during the third and fourth quarters of 2020.
- Several monitoring wells were not sampled due to separate phase hydrocarbon (SPH) being detected or a sheen identified during the monitoring period. Monitoring wells with SPH are noted in Section 3.2 and provided in Table 3-1.
- Monitoring well, MKTF-34 was inadvertently sampled twice during the first quarter of 2020. Analytical results from both first quarter events are presented.

- Elevated hydrogen sulfide readings in the ambient air around the NAPIS prevented sampling personnel from entering the area to perform gauging and sampling.
- Monitoring wells without sufficient water were not sampled during the monitoring period. These wells are noted in Section 4.0.
- Analytical results with reporting limits greater than their respective screening levels are noted in Tables 4-2 through 4-7 in italics.
- Some monitoring wells had field parameters outside of the stabilization criteria prior to sample collection. Field parameter measurements taken for the purpose of stabilization are provided in Appendix A.
- Some analytical data were rejected based on data validation qualifiers applied to the results. These data are discussed in Section 4.10.

3.0 Fluid Level Results

Fluid levels are measured monthly, quarterly, semiannually, and annually depending on the monitoring well. Fluid level measurements are recorded as ft below measuring point on the field logs and converted to ft below ground surface (bgs) for reporting. Fluid level data and SPH measurements collected during 2020 are summarized in Table 3-1. The following sub-sections discuss the potentiometric surface maps and SPH detections and thicknesses (which is not necessarily indicative of what is in the formation). Field logs for the 2020 fluid level activities are included in Appendix A. Figures presented in the following sub-sections utilized the third quarter annual monitoring event. Historical fluid level measurements and hydrographs are included as Appendix B-1 and Appendix B-2, respectively.

3.1 Potentiometric Surface

Figures 3-1 through 3-3 illustrate the potentiometric surfaces at the Refinery based on fluid levels measured in each of the three aquifers. Prevailing groundwater flow in the Refinery is from the southeast towards the northwest, however, in the tank farm the flow is generally in a northeasterly direction, and in the southern marketing tank farm area the flow is generally in a westerly direction.

The Alluvial/Fluvial upper sand aquifer is monitored with five groundwater monitoring wells (BW-1A, BW-2A, BW-3A, BW-4A, and BW-5A~~). BW-2A was the only monitoring well with water detected during 2020~~) (Figure 3-1). The depth to groundwater of BW-2A was ~~32.93~~30.12 ft~~ below measuring point (bmp).~~ bgs during the annual monitoring event of 2020. Groundwater elevation was approximately 6841.76 ft above mean sea level (msl~~).~~) during the annual monitoring event. The groundwater elevation of BW-2A has stayed consistent with previous gauging events. ~~Because water~~Groundwater was ~~only~~ detected once in ~~one well during 2020,~~BW-4A at 35.42 ft-bgs and the groundwater ~~gradient could not~~elevation was approximately 6834.84 ft ft-msl in the first quarter during 2020. Groundwater was detected twice in BW-5A at 20.33 ft-bgs and 20.39 ft-bgs and 6853.79 ft-msl and 6853.73 ft-msl in the second and fourth quarter, respectively. Based on the measured water level column in BW-4A and BW-5A (less than 0.5 ft), water detected in these wells may be ~~calculated.~~due to previous accumulation in the well sump rather than representative of the groundwater potentiometric surface (Table 3-1).

The Chinle/Alluvium aquifer includes monitoring wells across the Refinery (Figure 3-2). A total of ~~90~~88 monitoring wells were gauged during the third quarter of 2020. The 2020 depth to groundwater in monitoring wells screened in the Chinle/Alluvium aquifer ranged from ~~4.59~~a high of 1.07 ft~~ bmp~~ bgs (MKTF-~~28~~27 in February 2020) to ~~39.86~~a low of 41.96 ft~~ bmp~~ bgs (BW-4B in June 2020). Groundwater elevations ranged from ~~6833.37~~6828.48 ft~~ -~~msl (BW-4B) to 6950.55 ft~~ -~~msl (MKTF-47). Groundwater elevations have remained generally consistent with previous events.

The Sonsela aquifer includes monitoring wells outside of the Refinery process area and tank farm (Figure 3-3). The 2020 depth to groundwater in monitoring wells screened in the Sonsela aquifer ranged from ~~1.45~~a high of 0.21 ft ~~bmp (OW-01~~above ground surface inside the well casing (BW-5C in March 2020) to ~~46.~~a low of 45.37 ft~~ bmp~~ bgs (OW-12~~). OW-01 and OW-10 are~~ in November 2020). BW-5C is

on the ~~west~~northwest end of the property and ~~are~~is considered artesian. Groundwater elevations ranged from 6853.98 ft~~-~~msl (BW-2C) to 6905.00 ft~~-~~msl (OW-11). Groundwater elevations have remained consistent with previous monitoring events.

3.2 SPH Detections

~~In the first quarter of~~Measurable SPH was detected during all four quarters in 2020~~,~~: 23 monitoring wells ~~had measurable SPH. During the annual monitoring event~~ during ~~the third~~first quarter ~~of 2020, 39~~, 29 monitoring wells ~~had measurable SPH. During the fourth quarter of 2020, 38~~during second quarter, 37 monitoring wells during third quarter (i.e., the annual event), and 36 monitoring wells ~~had measurable SPH. Monitoring wells with SPH and calculated~~during fourth quarter. The measured SPH thickness ranged from 0.01 ft in multiple locations to 6.41 ft (MKTF-33) across the site during the 2020 annual event. SPH thicknesses measured in 2020 are ~~summarized on~~presented in Table 3-1.

Monitoring wells with measurable SPH for the third quarter of 2020 are shown on Figure 3-4. Fluid levels and SPH thicknesses for all of 2020 are presented in Table 3-1. SPH recovery efforts from the standpipes and the retention ditch continued during 2020 and are detailed in Section 5.0.

There is a cluster of SPH detections in the marketing area that has been extensively evaluated in the Marketing Tank Farm Laser-Induced Fluorescence/Hydraulic Profiling Investigation Report (MPC 2021b). In addition, there is a cluster of SPH detections in the tank farm area where Laser Induced Fluorescence (LIF) was conducted and will be summarized in the ~~Sitewide~~Tank 570 Release and Additional Areas LIF report ~~which will be~~ submitted to NMED ~~by October 31~~on November 1, 2021~~.~~ (MPC 2021d).

~~The presence and distribution of SPH is generally consistent with historical monitoring data but SPH thicknesses are generally decreasing across the site with the exception of wells MKTF-13, MKTF-48, GWM-1, OW-65, and OW-61, where SPH thickness either remained consistent or increased slightly. SPH recovery efforts continued during 2020 and are detailed in Section 5.0.~~

4.0 Sampling Results

Groundwater quality monitoring was performed in accordance with the 2020 Work Plan (MPC 2021a). A summary of the monitoring events and samples that were collected is presented in Table 4-1. Monitoring wells that contained detectable SPH during fluid level monitoring were not sampled. Monitoring program locations that did not contain detectable SPH during fluid level monitoring were sampled and the data analyzed by Hall Environmental Laboratory. The analytical data were compared against the screening levels, as detailed in Section 2.2.

The analytical results are described in the following sections. The analytical tables include the results from the most current monitoring event and the previous three monitoring events. Volatile organic compounds (VOCs) are presented in Table 4-2. Semi-volatile organic compounds (SVOCs) are presented in Table 4-3. Total and dissolved metal analytical results are presented in Tables 4-4 and 4-5, respectively. General chemistry analyses are presented in Table 4-6. Field parameters collected prior to sampling are presented in Table 4-7 and 2020 field logs are included in Appendix A. The 2020 analytical laboratory reports are included in Appendix C.

Specific laboratory analyses performed on samples from each monitoring locations are detailed in the 2020 Work Plan (MPC 2021a). Generally, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total and dissolved metals, and general chemistry analyses were performed, as discussed in the following sub-sections. Field parameters were also collected prior to sample collection and are discussed below.

Figures 4-1 through 4-9 present benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tert butyl ether (MTBE) data results. Other constituents were detected in the monitoring wells (see Tables 4-2 through 4-7) but are not included on the figures.

4.1 Eastern Boundary Wells Analytical Results

The Eastern Boundary wells are screened in the Chinle/Alluvium aquifer. These wells are located to the north and downgradient of the Tank Farm area (Figure 4-1). These monitoring wells are sampled on a quarterly basis. OW-14, 30, 54, and 55 were not sampled due to the recovery systems installed on the wells. OW-53 was dry during 2020 and was not sampled (Table 4-1). ~~Analytical results for benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tert butyl ether (MTBE) are presented on Figure 4-1.~~

The 2020 detected analytical results for the Eastern Boundary monitoring wells that exceeded the screening levels are noted in Tables 4-2 through 4-6 as bolded results. Non-detected sampling results with reporting limits greater than the applicable screening levels are noted with italics in the applicable tables. Wells that were not sampled and the cause (e.g., SPH) are included in Tables 4-2 through 4-6. Samples from wells OW-50 and OW-52 were analyzed in the laboratory for conductivity, TDS, soluble,

salt, pH, resistivity, and temperature. However, field data for these constituents are considered to be more accurate (Table 4-7). A summary of the analytical data is presented below:

- VOC – 1,1-Dichloroethane, 1,2,4-Trimethylbenzene, 1,2-Dichloroethane, 1,3,5-Trimethylbenzene, 2-Butanone, Acetone, BTEX, Isopropylbenzene, n-Propylbenzene, and MTBE were detected in the Eastern Boundary wells. 1,2,4-Trimethylbenzene, 1,2-Dichloroethane, Benzene and MTBE were detected above the selected screening level. 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichloroethane, 1,2-Dichloropropane, 2-Hexanone, Benzene, Bromodichloromethane, Bromoform, Bromomethane, Carbon tetrachloride, cis-1,3-Dichloropropene, Dibromo-chloromethane, Dibromomethane, Hexachlorobutadiene, Methylene Chloride, Tetrachloroethene, trans-1,3-Dichloropropene, Trichloroethene, and Vinyl Chloride had detection limits above the selected screening level. Data are presented in Table 4-2.

- SVOC – 1,4-Dioxane and Bis(2-ethyl hexyl)phthalate were detected in the Eastern Boundary wells. 1,4-Dioxane was detected above the selected screening level. Hexachloro Benzene and Hexachlorocyclopentadiene had detection limits above the selected screening level. Data are presented in Table 4-3.

- Total Metals – Aluminum, Arsenic, Barium, Beryllium, Boron, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Uranium, and Zinc were detected in the Eastern Boundary wells. Aluminum, Chromium, Cobalt, Iron, Manganese, and Uranium were detected above the selected screening level. Beryllium, Cadmium, Cobalt, and Molybdenum had detection limits above the selected screening level. Data are presented in Table 4-4.

- Dissolved Metals – Aluminum, Arsenic, Barium, Boron, Calcium, Cobalt, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Uranium, and Zinc were detected in the Eastern Boundary wells. Manganese was detected above the selected screening level. Cadmium, Cobalt, and Molybdenum had detection limits above the selected screening level. Data are presented in Table 4-5.

- General Chemistry – Bromide, COD, Chloride, Fluoride, Nitrate (as Nitrogen), Nitrate & Nitrite (as Nitrogen), Ortho-Phosphorus, Sulfate, DRO, GRO, C28-C40, TPH (C6-C10), TDS, TSS, and Soluble Salt were detected in the Eastern Boundary wells. Chloride, DRO, and GRO were detected above the selected screening level. Fluoride, Nitrite (as Nitrogen), DRO, GRO, Motor Oil, and ORO had detection limits above the selected screening level. Data are presented in Table 4-6.

Analytical results for BTEX and MTBE are presented on Figure 4-1. BTEX in the Eastern Boundary Area was not detected in the sampled wells during 2020 with the exception of OW-56. OW-56 has historically had low level concentrations of benzene (less than 2.5 micrograms per liter[µg/L]), however, during 2020 benzene concentrations were detected at 547 µg/L during the fourth quarter of 2020. OW-56 will continue to be monitored quarterly and reported. Ethylbenzene, toluene, and total xylenes have not historically been detected in monitoring well OW-56 but were detected the last two quarters of 2020. MTBE was detected in all of the Eastern Boundary monitoring wells during 2020. MTBE detections and screening level exceedances are generally consistent with historical monitoring data~~.~~, with the exception of OW-56. OW-56 MTBE concentrations increased from 11 ug/L (October 2019) to 70.8 ug/L (December 2020). Monitoring of the Eastern Boundary Area will continue on a quarterly basis.

4.2 Tank Farm Wells Analytical Results

The Tank Farm monitoring wells are screened in the Chinle/Alluvium aquifer. These wells are located within the Tank Farm area and are sampled on a quarterly basis (Figure 4-2). RW-1, 2, 5, and 6 were not sampled due to the recovery systems installed on the wells (Table 4-1). ~~Analytical results for BTEX and MTBE are presented on Figure 4-2.~~

The 2020 detected analytical results for the Tank Farm monitoring wells that exceeded the screening levels are noted in Tables 4-2 through 4-6 as bolded results. Non-detected sampling results with reporting limits greater than the applicable screening levels are noted with italics in the applicable tables. Wells that were not sampled and the cause (e.g., SPH) are included in Tables 4-2 through 4-6. Field parameters are provided in Table 4-7. A summary of the analytical data is presented below:

- VOCs – 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Acetone, Benzene, Ethylbenzene, Isopropylbenzene, MTBE, n-Butylbenzene, n-Propylbenzene, p-Isopropyltoluene, sec-Butylbenzene, tert-Butyl- benzene, Toluene, and Xylenes were detected in the Tank Farm wells. 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Benzene, Ethylbenzene, MTBE, and Xylenes were detected above the selected screening standard. 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4- Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,4-Dichlorobenzene, 2-Hexanone, Bromobenzene, Bromodichloromethane, Bromoform, Bromomethane, Carbon Disulfide, Carbon tetrachloride, Chlorobenzene, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-dichlorpropene, Dibromochloromethane, Dibromomethane, Dichlorodifluoromethane, Hexachlorobutadiene, Methylene Chloride, Styrene, Tetrachloroethene, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Vinyl Chloride, and Xylenes had detection limits above relevant standard. Data are presented in Table 4-2.

- SVOCs – 1-Methylnaphthalene, 2,4-Dimethylphenol, 2-Methynaphthalene, 2-Methylphenol, 3,4-Methylphenol, Acenaphthene, Bis(2-ethyl hexyl)phthalate, Carbazole, Dibenzofuran, Fluoranthene, Fluorene, Naphthalene, Phenanthrene, Phenol, and Pyrene were detected in the Tank Farm wells. 1-Methylnaphthalene, 2-Methylnaphthalene, and Naphthalene were detected above the selected screening standard. 1,4-Dioxane, 2,4-Dinitro Toluene, 2,6-Dinitro Toluene, 3,3'-Dichloro-benzidine, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Bis(2-chloro ethyl)ether, Dibenz(a,h)anthracene, Hexachloro Benzene, Hexachlorocyclopentadiene, Hexachloroethane, Nitro-benzene, N-Nitroso-dimethylamine, N-Nitrosodi-n-propylamine, Pentachloro- phenol, and Benzidine had detection limits above relevant standard. Data are presented in Table 4-3.

- Total Metals – Aluminum, Arsenic, Barium, Beryllium, Boron, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Uranium, and Zinc were detected in the Tank Farm wells. Aluminum, Barium, Iron, and Manganese were detected above the selected screening standard. Beryllium, Cadmium, Cobalt, and Molybdenum had detection limits above relevant standard. Data are presented in Table 4-4.

- Dissolved Metals – Aluminum, Arsenic, Barium, Boron, Calcium, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Uranium, and Zinc were detected in the Tank Farm wells. Barium and Manganese were detected above the selected screening standard. Beryllium, Cadmium, Cobalt, and Molybdenum had detection limits above relevant standard. Data are presented in Table 4-5.

- General Chemistry – Bromide, Chloride, Fluoride, Nitrate (as Nitrogen), Nitrate & Nitrite (as Nitrogen), Sulfate, DRO, GRO, ORO, C28-C40, TPH (C6-C10) were detected in the Tank Farm wells. Fluoride, DRO, GRO, and ORO were detected above the selected screening standard. DRO and ORO had detection limits above relevant standard. Data are presented in Table 4-6.

Analytical results for BTEX and MTBE are presented on Figure 4-2. BTEX and MTBE in the Tank Farm monitoring wells were detected. Benzene and ethylbenzene exceeded the screening level during all monitoring events during 2020 in the Tank Farm monitoring wells, which is consistent with historic monitoring. Toluene was detected during the 2020 monitoring events below the screening level which is consistent with historical monitoring results. MTBE was detected and exceeded the screening level in OW-58 and OW-58A during 2020. OW-57 and OW-63 exceeded the screening level for MTBE in two of the three quarters of 2020. The Tank Farm monitoring wells will continue to be monitored quarterly.

4.3 Marketing Tank Farm Wells Analytical Results

The Marketing Tank Farm (MKTF) monitoring wells are screened in the Chinle/Alluvium aquifer. These wells are located to the west and north of the Marketing Tank Farm area (Figure 4-3). These monitoring wells are sampled on a quarterly basis. ~~Analytical results for BTEX and MTBE are presented on~~

~~Figure 4-3.~~ Seventeen monitoring wells had SPH detected in them during the three monitoring events during 2020. These monitoring wells were not sampled during 2020 (Table 4-1).

The 2020 detected analytical results for the Marketing Tank Farm monitoring wells that have exceeded the screening levels are noted in Tables 4-2 through 4-6 as bolded results. Non-detected sampling results with reporting limits greater than the applicable screening levels are noted with italics in the applicable tables. Wells that were not sampled and the cause (e.g., SPH) are included in Tables 4-2 through 4-6. Field parameters are provided in Table 4-7. A summary of the analytical data is presented below:

- VOCs – 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2,4-Trimethylbenzene, 1,2-Dibromoethane, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,4-Dichlorobenzene, 1,4-Dioxane, 2-Butanone, 4-Methyl-2-Pentanone, Acetone, Benzene, Carbon Disulfide, Chloroethane, Chloroform, cis-1,2-Dichloroethene, Ethylbenzene, Isopropylbenzene, MTBE, n-Butylbenzene, n-Propylbenzene, p-Isopropyltoluene, sec-Butylbenzene, Styrene, Tetrachloroethene, Toluene, Trichloroethene, Vinyl Chloride, and Xylenes were detected in the Marketing Tank Farm wells. 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2,4-Trimethylbenzene, 1,2-Dibromoethane, 1,2-Dichloroethane, 1,3,5-Trimethylbenzene, 1,4-Dioxane, Benzene, Ethylbenzene, MTBE, Toluene, Trichloroethene, Vinyl Chloride, and Xylenes were detected above the selected screening level. 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4- Trichlorobenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,4-Dichlorobenzene, 2-Hexanone, Bromodichloromethane, Bromoform, Bromomethane, Carbon tetrachloride, Chlorobenzene, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-dichloropropene, Dibromo-chloromethane, Dibromomethane, Hexachloro-butadiene, Methylene Chloride, Tetrachloroethene, trans-1,3-Dichloropropene, Trichloroethene, Vinyl Chloride, and Xylenes had detection limits above the selected screening level. Data are presented in Table 4-2.

- SVOCs – 1,4-Dichlorobenzene, 1,4-Dioxane, 1-Methylnaphthalene, 2,4-Dimethylphenol, 2-Methylnaphthalene, 2-Methyl phenol, 3,4-Methyl phenol, Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)-anthracene, Benzoic Acid, Benzyl Alcohol, Bis(2-ethyl hexyl)phthalate, Carbazole, Chrysene, Dibenzofuran, Diethylphthalate, Fluorene, Naphthalene, Phenanthrene, Phenol, and Pyrene were detected in the Marketing Tank Farm wells. 1,4-Dioxane, 1-Methylnaphthalene, 2-Methylnaphthalene, and Naphthalene were detected above the selected screening level. 1,4-Dioxane, 2,4,6-Trichlorophenol, 2,4-Dichlorophenol, 2,4-Dinitrophenol, 2,4-Dinitro Toluene, 2,6-Dinitro Toluene, 3,3'-Dichloro-benzidine, Acenaphthylene, Aniline, Azobenzene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Bis(2-chloro ethyl)ether, Bis(2chloro isopropyl)ether, Chrysene, Dibenz(a,h) anthracene, Hexachloro Benzene, Hexachlorocyclopentadiene, Hexachloroethane, Naphthalene, Nitro-benzene, N-

Nitroso-dimethylamine, N-Nitrosodi-n-propylamine, Pentachlorophenol, and Benzidine had detection limits above the selected screening level. Data are presented in Table 4-3.

- Total Metals – All total metals were detected in the Marketing Tank Farm wells. Aluminum, Arsenic, Barium, Beryllium, Cobalt, Iron, Lead, Manganese, and Uranium were detected above the selected screening level. Antimony, Arsenic, Beryllium, Cadmium, Cobalt, Molybdenum, Thallium, and Uranium had detection limits above the selected screening level. Data are presented in Table 4-4.

- Dissolved Metals – All dissolved metals were detected in the Marketing Tank Farm wells. Antimony, Arsenic, Barium, Beryllium, Cadmium, Cobalt, Iron, and Manganese were detected above the selected screening level. Antimony, Cadmium, Cobalt, Molybdenum, and Thallium had detection limits above the selected screening level. Data are presented in Table 4-5.

- General Chemistry – Bromide, Chloride, COD, Fluoride, Nitrate & Nitrite, Nitrate (as Nitrogen), Nitrite (as Nitrogen), Ortho-Phosphorus, Sulfate, DRO, GRO, C28-C40, TPH (C6-C10), TDS, TSS, Soluble Salt and *E-Coli* were detected in the Marketing Tank Farm wells. Chloride, Fluoride, Nitrate (as Nitrogen), DRO, and GRO were detected above the selected screening levels. Nitrite (as Nitrogen), DRO, GRO, and ORO had detection limits above the selected screening level. Data are presented in Table 4-6.

Analytical results for BTEX and MTBE are presented on Figure 4-3. Benzene was consistently detected above the screening level in MKTF monitoring wells within areas near the presence of SPH. Detections of ethylbenzene, toluene, and total xylenes were generally present in monitoring wells with elevated benzene detections with the exception of MKTF-38 during the first quarter of 2020. MTBE was detected above the screening level in the southeast and southwest portion of the MKTF area and in the ~~north east~~northeast area. These detections for benzene and MTBE are generally consistent with historical results however, there are several instances where SPH is intermittently observed in the wells.

These monitoring wells will continue to be sampled on a quarterly basis. In addition, monitoring wells that have SPH will be evacuated using a vacuum truck on a monthly basis. These recovery activities will be reported in the 2021 Annual Groundwater Report.

4.4 Wastewater Treatment Area Analytical Results

The WWT area monitoring wells are screened in the Chinle/Alluvium aquifer. In addition, there are three LDUs that monitor the integrity of the NAPIS. These WWTP area monitoring wells and LDUs are sampled on a quarterly basis (Figure 4-4). The LDU-East, LDU-West, Oil Sump LDU, NAPIS-1, STP1-NW, and STP1-SW were not sampled during at least one of the quarters due to the presence of elevated hydrogen sulfide readings which prevented sampling activities to be performed (Table 4-1). ~~Analytical results for BTEX and MTBE are presented on Figure 4-4.~~

The 2020 detected analytical results for the WWT monitoring wells and LDUs that have exceeded the screening levels are noted in Tables 4-2 through 4-6 as bolded results. Non-detected sampling results with reporting limits greater than the applicable screening levels are noted with italics in the applicable tables. Wells that were not sampled and the cause (e.g., SPH) are included in Tables 4-2 through 4-6. Field parameters are provided in Table 4-7. A summary of the analytical data is presented below:

- VOCs – 1,1-Dichloroethane, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, 2-Butanone, Acetone, Benzene, Carbon Disulfide, Ethylbenzene, Isopropylbenzene, MTBE, n-Butylbenzene, n-Propylbenzene, p-Isopropyltoluene, sec-Butylbenzene, tert-Butylbenzene, Toluene, and Xylenes were detected in the Wastewater Treatment wells. Benzene and MTBE were detected above the selected screening level. 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, cis-1,3-dichloropropene, Hexachloro-butadiene, and trans-1,3-Dichloropropene had detection limits above the selected screening level. Data are presented in Table 4-2.

- SVOCs – 1,4-Dioxane, 1-Methylnaphthalene, 2-Methylnaphthalene, Acenaphthene, Acenaphthylene, Anthracene, Benzoic Acid, Benzyl Alcohol, Bis(2-ethyl hexyl)phthalate, Carbazole, Dibenzofuran, Fluorene, Naphthalene, Phenanthrene, Phenol, Pyrene, and Pyridine were detected in the Wastewater Treatment wells. 1-Methylnaphthalene was detected above the selected screening level. 1,4-Dioxane, 2,4,6-Trichlorophenol, 2,4-Dinitrophenol, 2,4-Dinitro Toluene, 2,6-Dinitro Toluene, 3,3'-Dichlorobenzidine, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Bis(2-chloro ethyl)ether, Bis(2chloro isopropyl)ether, Dibenz(a,h) anthracene, Hexachloro Benzene, Hexachlorocyclopentadiene, Hexachloroethane, Nitro-benzene, N-Nitroso-dimethylamine, N-Nitrosodi-n-propylamine, Pentachlorophenol, and Benzidine had detection limits above the selected screening level. Data are presented in Table 4-3.

- Total Metals – Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Uranium, and Zinc were detected in the Wastewater Treatment wells. Aluminum, Barium, Chromium, Cobalt, Iron, Manganese, Nickel, and Uranium were detected above the selected screening level. Cobalt, Molybdenum, and Thallium had detection limits above the selected screening level. Data are presented in Table 4-4.

- Dissolved Metals – Aluminum, Arsenic, Barium, Beryllium, Boron, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Uranium, and Zinc were detected in the Wastewater Treatment wells. Aluminum, Barium, Chromium, Cobalt, Iron, Manganese, and Nickel were detected above the selected screening level. Cobalt, Molybdenum, and Thallium had detection limits above the selected screening level. Data are presented in Table 4-5.

- General Chemistry – Bromide, Chloride, Fluoride, Nitrate (as Nitrogen), Sulfate, DRO, GRO, ORO, C28-C40, and TPH (C6-C10) were detected in the Wastewater Treatment wells. Chloride, Fluoride, Nitrate (as Nitrogen), DRO, GRO, and ORO were detected above the selected screening level. DRO, GRO, and ORO, had detection limits above the selected screening level Data are presented in Table 4-6.

Analytical results for BTEX and MTBE are presented on Figure 4-4. BTEX and MTBE have historically been detected in the WWT area monitoring wells. Monitoring wells that were sampled during 2020 continue to have elevated detections of benzene, ethylbenzene, and MTBE that are above the screening levels. The upgradient well NAPIS-1 has consistently had SPH and could not be sampled in 2020. In addition, it should be noted that benzene concentrations further upgradient in MKTF-49 and MKTF-50 are one to two orders of magnitude higher than concentrations observed in NAPIS-2 which had the highest benzene detects in the WWT area wells. Toluene and total xylenes were detected during 2020 but did not exceed the screening levels, similar to historic results.

4.5 SWMU 1 Area Analytical Results

The SWMU-1 monitoring wells are screened in the Chinle/Alluvium aquifer. SWMU-1 is no longer in use. These wells monitor the aeration lagoons (AL-1 and AL-2) and Evaporation Pond 1 (EP-1) and are sampled on a quarterly basis (Figure 4-5). GWM-1 was not sampled due to the presence of SPH in the monitoring well during 2020. GWM-2 and 3 were ~~not sampled due to the presence of SPH during the first quarter of 2020 and were~~ dry during ~~the second half of~~all quarters in 2020 (Table 4-1). ~~Analytical results for BTEX and MTBE are presented on Figure 4-5.~~

The 2020 detected analytical results for the SWMU 1 monitoring wells that have exceeded the screening levels are noted in the applicable tables as bolded results. Non-detected sampling results with reporting limits greater than the applicable screening levels are noted with italics in the applicable tables. Wells that were not sampled and the cause (e.g., SPH) are included in Tables 4-2 through 4-6. Field parameters are provided in Table 4-7. A summary of the analytical data is presented below:

- VOCs – Acetone and MTBE were detected in the SWMU 1 wells. No VOCs were detected above the selected screening level. 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, cis-1,3-dichloropropene, Hexachloro-butadiene, and trans-1,3-Dichloropropene had detection limits above the selected screening level. Data are presented in Table 4-2.

- SVOCs - 1,4-Dioxane, Benzoic Acid, Benzyl Alcohol, and Bis(2-ethyl hexyl)phthalate were detected in the SWMU 1 wells. 1,4-Dioxane was detected above the selected screening level. 2,4-Dinitro Toluene, 2,6-Dinitro Toluene, 3,3'-Dichlorobenzidine, Benzo(a)pyrene,

Benzo(b)fluoranthene, Benzo(k)fluoranthene, Bis(2-chloro ethyl)ether, Bis(2chloro isopropyl)ether, Dibenz(a,h)anthracene, Hexachloro Benzene, Hexachlorocyclopentadiene, Hexachloro-ethane, Nitro-benzene, N-Nitroso-dimethylamine, N-Nitrosodi-n-propylamine, Pentachloro- phenol, and Benzidine had detection limits above the selected screening level. Data are presented in Table 4-3.

- Total Metals – Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Uranium, and Zinc were detected in the SWMU 1 wells. Aluminum, Arsenic, Beryllium, Chromium, Cobalt, Iron, Lead, and Uranium were detected above the selected screening level. Antimony, Cobalt, Molybdenum, and Thallium had detection limits above the selected screening level. Data are presented in Table 4-4.

- Dissolved Metals – Aluminum, Arsenic, Barium, Beryllium, Boron, Calcium, Chromium, Iron, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Uranium, and Zinc were detected in the SWMU 1 wells. No dissolved metals were detected above the selected screening level. Antimony, Cobalt, Molybdenum, and Thallium had detection limits above the selected screening level. Data are presented in Table 4-5.

- General Chemistry – Bromide, Chloride, Nitrate (as Nitrogen), Sulfate, DRO, GRO, and TPH (C6-C10) were detected in the SWMU 1 wells. Chloride, Nitrate (as Nitrogen), Sulfate, DRO, and GRO were detected above the selected screening level. Nitrite (as Nitrogen), DRO, GRO, and ORO had detection limits above the selected screening level. Data are presented in Table 4-6.

As shown on Figure 4-5, BTEX and MTBE were not detected in the SWMU 1 monitoring wells during 2020. These monitoring wells historically have not had detections or exceedances of BTEX.

4.6 LTU Area Analytical Results

The LTU Area monitoring wells are located in the area of the RCRA-closed LTU and are sampled on an annual basis (Figure 4-6). Some of the LTU Area wells are screened in the Sonsela aquifer and are noted with the MW designation. The remaining wells in the LTU area are screened in the Chinle/Alluvium aquifer and are noted with the SMW designation. These monitoring wells are sampled on an annual basis. ~~Analytical results for BTEX and MTBE are presented on Figure 4-6.~~

The 2020 detected analytical results for the LTU Area monitoring wells that have exceeded the screening levels are noted in Tables 4-2 through 4-6 as bolded results. Non-detected sampling results with reporting limits greater than the applicable screening levels are noted with italics in the applicable tables. Wells that were not sampled and the cause (e.g., SPH) are included in Tables 4-2 through 4-6. Field parameters are provided in Table 4-7. A summary of the analytical data is presented below:

- VOCs – Acetone and MTBE was detected in the LTU wells. No VOCs were detected above the selected screening level. 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, and 1,2-Dibromoethane had detection limits above the selected screening level. Data are provided in Table 4.2.

- SVOCs – 1,4-Dioxane, Benzoic Acid, Benzyl Alcohol, and Bis(2-ethyl hexyl)phthalate were detected in the LTU wells. 1,4-Dioxane was detected above the selected screening level. Bis(2-chloro ethyl)ether, Hexachloro Benzene, Hexachlorocyclopentadiene, N-Nitroso-dimethylamine, N-Nitrosodi-n-propylamine, and Benzidine had detection limits above the selected screening level. Data are provided in Table 4-3.

- Total Metals – Aluminum, Arsenic, Barium, Boron, Chromium, Cobalt, Iron, Lead, Manganese, Molybdenum, Nickel, Silver, Uranium and Zinc were detected in the LTU wells. Cobalt and Uranium was detected above the selected screening level. Cobalt had detection limits above the selected screening level. Data are provided in Table 4-4.

- Dissolved Metals – Aluminum, Arsenic, Barium, Boron, Calcium, Chromium, Cobalt, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Silver, Sodium, Uranium, and Zinc were detected in the LTU wells. Cobalt was detected above the selected screening level. Cobalt and Thallium had detection limits above the selected screening level. Data are provided in Table 4-5.

- General Chemistry – Bromide, Chloride, Fluoride, Nitrate (as Nitrogen), Sulfate, DRO, and GRO detected in the LTU wells. Chloride, Sulfate, DRO, and GRO was detected above the selected screening level. Fluoride, Nitrite (as Nitrogen), DRO, GRO, and ORO had detection limits above the selected screening level. Data are provided in Table 4-6.

Analytical results for BTEX and MTBE are presented on Figure 4-6. BTEX and MTBE were not detected in the LTU Area monitoring wells with the exception of MTBE in SMW-2. MTBE did not exceed the screening level in SWM-2 during 2020. SWM-2 has historically had detections of MTBE less than the screening level.

4.7 Evaporation Ponds Analytical Results

The Refinery also monitors the Evaporation Ponds that are located in the northwestern area of the property (Figure 4-7). These samples are collected as surface samples at the Refinery. These surface samples are typically collected semiannually during the second and fourth quarters. However, due to the COVID-19 pandemic, these samples were collected during the third and fourth quarters of 2020. Evaporation Pond EP-11 was dry during the third quarter of 2020 and was not sampled (Table 4-1). ~~Analytical results for BTEX and MTBE are presented on Figure 4-7.~~

The 2020 detected analytical results for the Evaporation Pond surface samples that have exceeded the screening levels are noted in the Tables 4-2 through 4-6 as bolded results. Samples from the ponds were also analyzed in the laboratory for conductivity, TDS, soluble, salt, pH, resistivity, and temperature. However, field data for these constituents are considered to be more accurate (Table 4-7). Non-detected sampling results with reporting limits greater than the applicable screening levels are noted with italics in the applicable tables. A summary of the analytical data is provided below:

- VOCs – 1,2,4-Trimethylbenzene, 2-Butanone, Acetone, Carbon Disulfide, and Chloromethane were detected in the evaporation ponds. No constituents were detected above the selected screening level. 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1,-Dichloroethene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichloroethane, 1,2-Dichloropropane, 2-Hexanone, Bromodichloromethane, Bromomethane, Carbon Tetrachloride, Chloromethane, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromomethane, Hexachlorobutadiene, Methylene Chloride, Tetrachloroethene, Trans-1,3-Dichloropropene, Trichloroethene, and Vinyl Chloride had detection limits above the relevant standard. Data are presented in Table 4-2.

- SVOCs – 1,4-dioxane, 3,4-Methylphenol, Benzoic Acid, Bis(2-ethyl hexyl)phthalate, and Phenol were detected in the evaporation ponds. No constituents were detected above the relevant standard. 2,4,6-Trichlorophenol, 2,4-Dichlorophenol, 2,4-Dinitrophenol, 2,4-Dinitrotoluene, 2,6-Dinitrotoluene, -3'-Dichlorobenzidine, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Bis(2chloroethyl)ether, Bis(2chloroisopropyl)ether, Chrysene, Dibenz(a,h)anthracene, Hexachlorobenzene, Hexachlorocyclopentadiene, Hexachloroethane, Naphthalene, Nitrobenzene, N-Nitrosodimethylamine, N-Nitrosodi-n-propylamine, Pentachlorophenol, and Benzidine had detection limits above the relevant standards. Data are provided in Table 4-3.

- Total Metals – Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Chromium, Cobalt, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver, Uranium, and Zinc were detected in the evaporation ponds. Aluminum, Arsenic, Boron, Chromium, Cobalt, Iron, Lead, Manganese, Nickel, and Selenium were detected above the relevant standards. Antimony, Beryllium, Cadmium, Cobalt, Lead, Molybdenum, Selenium, Thallium, and Uranium had detection limits above the relevant standards. Data are provided in Table 4-4.

- Dissolved Metals – Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Calcium, Chromium, Cobalt, Copper, Iron, Magnesium, Manganese, Nickel, Potassium, Selenium, Silver, Sodium, Uranium, and Zinc were detected in the evaporation ponds. Antimony, Arsenic, Boron, Chromium, Cobalt, Iron, Manganese, Nickel, and Selenium were detected above the relevant standards. Antimony, Beryllium, Cadmium, Chromium, Cobalt, Molybdenum, Nickel, Selenium,

Silver, and Thallium had detection limits above the relevant standards. Data are provided in Table 4-5.

- General Chemistry – BOD, Bromide, COD, Chloride, Fluoride, Nitrate (as Nitrogen), Nitrate and Nitrite (as Nitrogen), Sulfate, DRO, C28-C40, TPH (C6-C10), TDS, Soluble Salt, E-Coli Coliform, and E-Coli were detected in the evaporation ponds. Chloride, Fluoride, Nitrate-Nitrogen, Nitrate and Nitrite Nitrogen, Sulfate, and DRO were detected above the relevant standards. Fluoride, Nitrite (as Nitrogen), GRO, and ORO had detection limits above the relevant standards. General field parameters were collected including Conductivity, pH, Resistivity, and Temperature. Data are provided in Table 4-6.

As shown on Figure 4-7, BTEX and MTBE were reported as not detected during the two semiannual monitoring events in 2020. This is generally consistent with ~~historic~~historical results.

4.8 Western Boundary Wells Analytical Results

The Western Boundary monitoring wells are screened across the three aquifers at the Refinery to monitor the western boundary of the Refinery (Figure 4-8). These monitoring wells are sampled on either a quarterly or an annual basis. BW-1A, BW-1B, BW-3A, BW-4A, and BW-5A were dry during 2020 and were not sampled. BW-4B purged dry during the third quarter of 2020 and was not sampled during that event (Table 4-1). ~~Analytical results for BTEX and MTBE are presented on Figure 4-8.~~

The 2020 detected analytical results for the Western Boundary Area monitoring wells that have exceeded the screening levels are noted in the applicable tables as bolded results. Non-detected sampling results with reporting limits greater than the applicable screening levels are noted with italics in the applicable tables. Wells that were not sampled and the cause (e.g., SPH) are included in Tables 4-2 through 4-6. Field parameters are provided in Table 4-7. A summary of the analytical data is presented below:

- VOCs – 1,1-Dichloroethane, 1,2-Dichloroethane, Acetone, and MTBE were detected in Western Boundary wells. No constituents were above the relevant standards. 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, cis-1,3-Dichloropropene, Hexachlorobutadiene, and trans-1,3-Dichloropropene had detection limits above relevant standards. Data presented in Table 4-2.

- SVOCs – 1,4-Dixoane was detected in Western Boundary wells. 1,4-Dioxane was detected above the relevant standard. 2-6-Dinitro Toluene, Hexachloro Benzene, and Hexachlorocyclopentadiene had detection limits above relevant standards. Data are presented in Table 4-3.

- Total Metals – Aluminum, Arsenic, Barium, Beryllium, Boron, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium,

Selenium, Silver, Sodium, Thallium, Uranium, and Zinc were detected in Western Boundary wells. Aluminum, Cobalt, Iron, Lead, and Uranium were detected above the selected screening level. Cobalt and Molybdenum had detection limits above relevant standards. Data are presented in Table 4-4.

- Dissolved Metals – Aluminum, Arsenic, Barium, Beryllium, Boron, Calcium, Chromium, Cobalt, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Sodium, Uranium, and Zinc were detected in Western Boundary wells. Cobalt was detected above the selected screening level. Cobalt and Thallium had detection limits above the relevant standard. Data are presented in Table 4-5.

- General Chemistry – Bromide, Chloride, Fluoride, Nitrate and Nitrite, Nitrate (as Nitrogen), Ortho Phosphate, Sulfate, and GRO were detected in Western Boundary wells. Chloride, Fluoride, and GRO were detected above the selected screening level. DRO, GRO, and ORO had detection limits above the relevant standards. Data are presented in Table 4-6.

Analytical results for BTEX and MTBE are presented on Figure 4-8. BTEX has continued to be non-detect in the Western Boundary monitoring wells. MTBE was detected in ~~monitoring wells~~ BW-5B ~~and~~ during 2020 but did not exceed the screening level. MTBE in BW-5C was detected above the screening level during 2020. These results are consistent with previous monitoring events.

4.9 Deep Monitoring Wells Analytical Results

The Deep monitoring wells are screened in the Sonsela aquifer (Figure 4-9). In addition to these deep wells, three production wells are also included in this group (PW-2, PW-3, and PW-4). These monitoring and production wells are sampled on an annual or quarterly basis with the exception of PW-2 which is monitored every 3 years. Analytical results for ~~VOC's, SVOC's~~VOCs, SVOCs, total and dissolved metals, and general chemistry are presented in Tables 4-2 through 4-6, respectively. Field parameters collected during the monitoring activities are presented in Table 4-7 and can be found in the field logs in Appendix A. ~~Analytical results for BTEX and MTBE are presented on Figure 4-9.~~

The 2020 detected analytical results for the Deep monitoring wells that have exceeded the screening levels are noted in Tables 4-2 through 4-6 as bolded results. Non-detected sampling results with reporting limits greater than the applicable screening levels are noted with italics in the analytical tables. A summary of the analytical data is presented below:

- VOC – 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2-Dichloroethane, 1,4-Dixoane, Acetone, Benzene, Ethylbenzene, MTBE, Toluene, and Xylenes were detected in the Deep wells. Benzene was detected above the selected screening level. 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethene, cis-1,3-Dichloropropene, Hexachlorobutadiene, and Trans-1,3-dichloropropene had detection limits above relevant standards. Data are presented in Table 4-2.

- SVOC – 1,4-Dioxane and Bis(2-ethylhexyl) phthalate were detected in Deep wells. No constituents were detected above the selected screening level. 2,4-Dinitrotoluene, 2,6-Dinitrotoluene, 3-3'Dichlorobenzidine, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Bis(2-chloroethyl)ether, Bis(2-chloroisopropyl)ether, Dibenz(a,h)anthracene, Hexachlorobenzene, Hexachlorocyclopentadiene, Hexachloroethane, Nitro-benzene, N-Nitrosodimethylamine, N-Nitrosodi-n-propylamine, Pentachlorophenol, and Benzidine had detection limits above relevant standards. Data are presented in Table 4-3.

- Total Metals – Aluminum, Arsenic, Barium, Beryllium, Boron, Calcium, Chromium, Cobalt, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Uranium, and Zinc were detected in Deep wells. Molybdenum, and Uranium were detected above the selected screening level. Beryllium, Cadmium, Cobalt, and Thallium had detection limits above relevant standards. Data are presented in Table 4-4.

- Dissolved Metals – Aluminum, Arsenic, Barium, Boron, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Potassium, Selenium, Silver, Sodium, Uranium, and Zinc were detected in Deep Wells. Molybdenum was detected above the selected screening level. Cobalt, Molybdenum, and Thallium had detection limits above relevant standards. Data are presented in Table 4-5.

- General Chemistry – Bromide, Chloride, Fluoride, Nitrate (as Nitrogen), Nitrate and Nitrite (as Nitrogen), Nitrite (Nitrogen), Sulfate, GRO, and TPH (C6-C10) were detected in Deep wells. Chloride, Fluoride, Sulfate, and GRO was detected above the selected screening level. Nitrite-Nitrogen, DRO, GRO, and ORO had detection limits above relevant standards. Data are presented in Table 4-6.

Analytical results for BTEX and MTBE are presented on Figure 4-9. BTEX was reported as non-detect in the deep monitoring wells with the exception of OW-12. OW-12 has historically not had detections of BTEX; however, BTEX was detected during the third quarter of 2020. Benzene and ethylbenzene were detected above the screening level. OW-12 is located downgradient of the tank farm ~~and~~. The monitoring frequency will ~~continue~~be changed from annual to ~~be monitored for BTEX~~semiannual in 2022. MTBE was detected in all of the deep monitoring wells with the exception of OW-11. The MTBE monitoring data are generally consistent with historical analytical results. Per the Response to Approval with Modifications, Revised Investigation Work Plan North Drainage Ditch Area (MPC 2021c), a new monitoring well adjacent to OW-12 will be installed in the Chinle/~~Alluvial~~Alluvium aquifer interface which will allow for additional understanding of BTEX concentrations in this area. This new well will be monitored and reported on in the 2021 Annual Monitoring Report.

Production well PW-2 was sampled in both the third and fourth quarters of 2020. The analytical data for the fourth quarter of 2020 for PW-2 was rejected based on data qualifiers as described in Section 4.10.



However, the fourth quarter 2020 monitoring event was not required per the 2020 Work Plan (MPC 2021a). The September 2020 analytical data for PW-2 was reported as not detected and is consistent with historical monitoring events.

4.10 QA/QC Analytical Results

Quality assurance/quality control (QA/QC) groundwater samples were collected during the groundwater monitoring and sampling events and were submitted for laboratory analyses. The analytical data reported from the receiving laboratory underwent Tier I and Tier II data validation by Trihydro's chemical data validation services group. Data qualified are presented in their respective tables, as listed in previous sections, where relevant. The Tier II data validation reports are provided in Appendix D. A summary of qualifiers and QA/QC sample results are discussed in the sections below.

The following qualifiers were applied to the analytical data collected during 2020:

- J – estimated concentration
- J+ – estimated concentration, biased high
- J- – estimated concentration, biased low
- UJ – estimated reporting limit
- U – evaluated to be undetected at the reporting limit
- JB – estimated concentration due to blank contamination
- R – rejected, data not usable

4.10.1 Rejected Data

Out of the 2020 data packages, 99.5% of the data received from the laboratory were acceptable with approximately 0.5% of the data rejected during the 2020 monitoring events. The VOC data from PW-2 were rejected because VOCs were analyzed outside of the method holding time (7 days). The VOC analytes were not detected in sample PW-2 and, therefore, the results were qualified as R to indicated rejected data. These data were qualified based on holding time exceedances, laboratory control sample/laboratory control sample duplicate percent recoveries, matrix spike/matrix spike duplicate recoveries or surrogate recoveries. Rejected data are presented in their respective tables and explanations of the qualifiers can be found in Appendix D.

4.10.2 Field Blanks

Twenty-two field blank samples were collected during 2020. The field blanks are collected by adding distilled water to sample bottles in the field where samples are to be collected from wells that day. Acetone, 2-butanone, and toluene were detected in field blanks collected during the first and third quarters. These constituents are common laboratory contaminants.



4.10.3 Trip Blanks

Eighteen trip blank samples were collected during 2020. Trip blanks are provided by the laboratory and are kept with the sample coolers during shipment to and from the laboratory. Benzene was detected during the first quarter sampling event on March 2, 2020. Acetone was detected in several trip blank samples during the third quarter 2020 sampling event. Chloromethane and bromomethane were detected in the trip blank on September 16, 2020. Target analytes detected in the associated samples at concentrations less than the reporting limit were qualified as U. Detections that were greater than the blank detection but less than 10 times the blank concentration were qualified as JB. Non-detections of the target analytes in the associated samples and results greater than 10 times the blank detection did not require qualification.

4.10.4 Equipment Blanks

Fifteen equipment blank samples were collected during 2020. Equipment blanks are collected by cleaning reusable equipment and then collecting a sample from the equipment using distilled water. Thirty-five analytes were detected in the equipment blanks. Target analytes detected in the associated samples at concentrations less than the reporting limit were qualified as U. Detections that were greater than the blank detection but less than 10 times the blank concentration were qualified as JB. Non-detections of the target analytes in the associated samples and results greater than 10 times the blank detection did not require qualification.

4.10.5 Field Duplicates

Duplicate samples were collected during all sample events of 2020. Twenty-seven duplicate samples were collected during the sampling events. The analytical results for the duplicate samples are included with their parent samples in previous tables. Relative percent difference (RPD) values were calculated and compared to the data validation quality control limit of 30 percent (%). RPD values greater than 30 % were qualified as J due to evidence of poor precision. RPD values that exceeded 100 % were assigned J qualifiers if detected in the associated samples and UJ qualifiers if not detected due to evidence of moderately poor precision.

5.0 Remediation Activities

Fluid recovery at the Refinery is reported quarterly in the Hydrocarbon Interim Measures Status Reports. Remediation activities include vacuum truck recovery in the standpipe sumps and retention ditch. Recovery took place during the second, third, and fourth quarter of 2020. Recovery activities were restricted during the first quarter of 2020 while turnaround took place. In addition, the Refinery was operating on a skeleton crew through the majority of 2020 due to the COVID-19 pandemic~~. In addition, free phase SPH is recovered on-site from monitoring wells with SPH greater than 0.5 inches,~~ which delayed other investigations and remedial activities.

~~In addition to fluid recovery, the SWMU 1 investigation was conducted during the week of January 13, 2020 which included sediment sampling to determine sediment volume and chemical characterization. No remediation waste was collected during the SWMU 1 investigation. Other investigations and remedial activities were delayed due to the COVID-19 pandemic.~~

Recovery data for 2020 is presented in Table 5-1. These activities will continue to be reported to NMED on a quarterly basis in the Hydrocarbon Interim Measures Status Reports. In addition to recovery activities in the standpipe sumps and retention ditch, SPH in monitoring wells at the refinery, will be evacuated and reported in the Interim Measures Status Reports.

6.0 Conclusions

Sampling took place during the first, third, and fourth quarters of 2020. Based on the 2020 groundwater gauging and sampling results, the following conclusions were made:

- The 2020 depth to groundwater in monitoring wells screened in the Alluvial/Fluvial upper sand aquifer ~~are consistently dry.~~ ranged from a high of 20.33 ft bgs (BW-~~2A had~~5A in June 2020) to a low of 35.42 ft-bgs (BW-4A in March 2020). Based on the measured water level column in BW-4A and BW-5A (less than 0.5 ft), water detected ~~approximately 32.93 ft bmp during the third quarter of 2020.~~
- ~~The~~ in these wells may be due to previous accumulation in the well sump rather than representative of the groundwater potentiometric surface (Table 3-1).
- The 2020 depth to groundwater in monitoring wells screened in the Chinle/Alluvium aquifer ranged from ~~4.59~~a high of 1.07 ft ~~bmp~~-bgs (MKTF-~~28~~27 in February 2020) to ~~39.86~~a low of 41.96 ft ~~bmp~~-bgs (BW-4B in June 2020).
- The 2020 depth to groundwater in monitoring wells screened in the Sonsela aquifer ranged from ~~1.~~a high of 0.21 ft above ground surface inside the well casing (BW-5C in March 2020) to a low of 45 ~~ft bmp (OW-01) to 46.45 ft bmp~~.37 ft-bgs (OW-12~~). OW-01 and OW-10 are~~ in November 2020). BW-5C is on the ~~west~~northwest end of the property and is considered artesian.
- Measurable SPH was detected ~~in 39~~during all four quarters in 2020: 23 monitoring wells during ~~the third quarter of 2020 (Table 3-1~~first quarter, 29 monitoring wells during second quarter, 37 monitoring wells during third quarter (i.e., the annual event), and ~~Figure 3-4). Fluid levels and~~36 monitoring wells during fourth quarter. The measured SPH thickness ranged from 0.01 ft in multiple locations to 6.41 ft (MKTF-33) across the site during the 2020 annual event. SPH thicknesses measured in 2020 are presented ~~in~~on Table 3-1~~ for all of 2020. Generally, SPH thicknesses have been decreasing at the site with the exception of wells MKTF-13, MKTF-48, GWM-1, OW-65, and OW-61 (Appendix B-2). SPH thicknesses are not necessarily indicative of what is in the formation~~.
- In the Eastern Boundary wells, BTEX were not detected in the analytical data during 2020 with the exception of OW-56. OW-56 has historically had low level concentrations of benzene (less than 2.5 µg/L), however, during 2020 the benzene concentrations were detected at 547 µg/L during the fourth quarter of 2020. OW-56 will continue to be monitored quarterly and reported. MTBE was detected in all of the Eastern Boundary monitoring wells that were sampled during 2020. MTBE detections and screening level exceedances are generally consistent with historical monitoring data~~.~~, with the exception of OW-56. OW-56 MTBE concentrations increased from 11 ug/L (October 2019) to 70.8 ug/L (December 2020).
- BTEX and MTBE in the Tank Farm monitoring wells were detected. Benzene and ethylbenzene exceeded the screening level during all monitoring events during 2020 in the Tank Farm



monitoring wells, which is consistent with ~~historic~~historical monitoring. Toluene was detected during the 2020 monitoring events below the screening level which is consistent with historical monitoring results. MTBE was detected and exceeded the screening level in OW-58 and OW-58A during 2020. OW-57 and OW-63 exceeded the screening level for MTBE in two of the three quarters of 2020.

- In the Marketing Tank Farm (MKTF) Area, benzene was consistently detected above the screening level in monitoring wells within areas near the presence of SPH (Figure ~~ES-1~~3-4). Detections of ethylbenzene, toluene, and total xylenes were generally present in monitoring wells with elevated benzene detections with the exception of MKTF-38 during the first quarter of 2020. MTBE was detected above the screening level in the southeast and southwest portion of the MKTF area and in the ~~north east~~northeast area. These detections for benzene and MTBE are generally consistent with historical results; however, there are several instances where SPH is intermittently observed in the wells. In addition, monitoring wells that have SPH will be evacuated using a vacuum truck on a monthly basis.
- BTEX and MTBE have historically been detected in the WWT area monitoring wells. Monitoring wells that were sampled during 2020 continued to have elevated detections of benzene, ethylbenzene, and MTBE that are above the screening levels. The upgradient well NAPIS-1 has consistently had SPH and could not be sampled in 2020. In addition, it should be noted that benzene concentrations further upgradient in MKTF-49 and MKTF-50 are one to two orders of magnitude higher than concentrations observed in NAPIS-2 which had the highest benzene detects in the WWT area wells. Toluene and total xylenes were detected during 2020 but did not exceed the screening levels, similar to ~~historic~~historical results.
- BTEX and MTBE were not detected in the SWMU 1 monitoring wells during 2020. These monitoring wells historically have not had detections or exceedances of BTEX.
- BTEX and MTBE were not detected in the LTU Area monitoring wells with the exception of MTBE in SMW-2. MTBE did not exceed the screening level in SWM-2 during 2020. SWM-2 has historically had detections of MTBE less than the screening level.
- In the Evaporation Ponds and outfall locations, BTEX and MTBE were reported as not detected during the two semiannual monitoring events in 2020. This is generally consistent with ~~historic~~historical results.
- BTEX has continued to be non-detect in the Western Boundary monitoring wells. MTBE was detected in ~~monitoring wells~~ BW-5B ~~and~~during 2020 but did not exceed the screening level. MTBE in BW-5C was detected above the screening level during 2020. These results are consistent with previous monitoring events.
- BTEX was reported as non-detect in the deep monitoring wells with the exception of OW-12. OW-12 has historically not had detections of BTEX however, BTEX was detected during the third

quarter of 2020. Benzene and ethylbenzene were detected above the screening level. OW-12 is located downgradient of the tank farm ~~and will continue to be monitored for BTEX.~~. The monitoring frequency will be changed from annual to semiannual in 2022. MTBE was detected in all of the deep monitoring wells with the exception of OW-11. The MTBE monitoring data are generally consistent with historical analytical results. Per the Response to Approval with Modifications, Revised Investigation Work Plan North Drainage Ditch Area (MPC 2021c), a new monitoring well adjacent to OW-12 will be installed in the Chinle/~~Alluvial~~Alluvium aquifer interface which will allow for additional understanding of BETX concentrations in this area. This new well will be monitored and reported on in the 2021 Annual Monitoring Report.

- Recovery activities will continue to take place and will be summarized in the Hydrocarbon Interim Measures Seep Reports, submitted quarterly to NMED.

Gauging and sampling requirements will continue in accordance with the most current NMED-approved Facility-Wide Groundwater Monitoring Work Plan. The 2021 Annual Groundwater Monitoring Report will be submitted no later than September 1, 2022. Site assessments will take place as required and NMED will be notified of remediation activities.



7.0 References

Marathon Petroleum Company (MPC). 2021a. Approval with Modifications, Disapproval Facility Wide Ground Water Monitoring Work Plan – Updates for 2020, Western Refining Southwest LLC, Gallup Refinery, EPA ID #NMD000333211, HWB-WRG-20-012. March 25.

Marathon Petroleum Company (MPC). 2021b. Marathon Petroleum Company, Gallup Refining Division, Marketing Tank Farm Laser-Induced Fluorescence/Hydraulic Profiling Investigation Report. March 31.

MPC. 2021c. Response to Approval with Modifications, Revised Investigation Work Plan North Drainage Ditch Area, Marathon Petroleum Company LP, Gallup Refinery, March 31.

MPC. 2021d. Tank 570 Release and Additional Areas LIF/HP Investigation Report, Western Refining Southwest LLC, D/B/A Marathon Gallup Refinery, EPA ID# NMD000333211. November 1.

Stone, W.J., Lyford F.P., Frenzel, P.F., Mizel, N.H., and Padgett, E.T. 1983. Hydrogeology and Water Resources of San Juan Basin, New Mexico, Hydrogeologic Report 6, New Mexico Bureau of Mines and Mineral Resources, p. 70.



Tables

Figures

Appendices A through D (Please see attached CD)

Appendix A – 2020 Field Logs

Appendix B – Historical Fluid Level Measurements

Appendix C – 2020 Laboratory Analytical Reports

Appendix D – 2020 Data Validation Reports

Appendix A – 2020 Field Logs

Appendix A-1. 1st Quarter Field Logs

Appendix A-2. 2nd Quarter Field Logs

Appendix A-3. 3rd Quarter Field Logs

Appendix A-~~3~~4. 4th Quarter Field Logs

Appendix A-1. 1st Quarter Field Logs

Appendix A-2. 2nd Quarter Field Logs

Appendix A-3. 3rd Quarter Field Logs



Appendix A-~~3~~4. 4th Quarter Field Logs

Appendix B – Historical Fluid Level Measurements

Appendix B-1. ~~Historical~~ Fluid Level Monitoring (2014-2020)

Appendix B-2. Hydrographs

Appendix B-1. ~~Historical~~ Fluid Level Monitoring (2014-2020)



Appendix B-2. Hydrographs

Appendix B-2A. Historical Groundwater Elevations and SPH Thicknesses – Alluvial/Fluvial Upper Sand Aquifer

Appendix B-2B. Historical Groundwater Elevations and SPH Thicknesses – Chinle/Alluvium Aquifer

Appendix B-2C. Historical Groundwater Elevations and SPH Thicknesses – Sonsela Aquifer

Appendix B-2A. Historical Groundwater Elevations and SPH Thicknesses – Alluvial/Fluvial Upper Sand Aquifer

Appendix B-2B. Historical Groundwater Elevations and SPH Thicknesses – Chinle/Alluvium Aquifer

Appendix B-2C. Historical Groundwater Elevations and SPH Thicknesses – Sonsela Aquifer



Appendix C – 2020 Laboratory Analytical Reports

Appendix C-1. 1st Quarter Analytical Reports

Appendix C-2. 3rd Quarter Analytical Reports

Appendix C-3. 4th Quarter Analytical Reports



Appendix C-1. 1st Quarter Analytical Reports

Appendix C-2. 3rd Quarter Analytical Reports

Appendix C-3. 4th Quarter Analytical Reports



Appendix D – 2020 Data Validation Reports

Appendix D-1. 1st Quarter Data Validation Reports

Appendix D-2. 3rd Quarter Data Validation Reports

Appendix D-3. 4th Quarter Data Validation Reports

Appendix D-1. 1st Quarter Data Validation Reports

Appendix D-2. 3rd Quarter Data Validation Reports

Appendix D-3. 4th Quarter Data Validation Reports

ATTACHMENT C

REVISED 2020 ANNUAL GROUNDWATER MONITORING REPORT

(TWO HARD COPIES AND ELECTRONIC COPY)

2020 ANNUAL GROUNDWATER MONITORING REPORT

WESTERN REFINING SOUTHWEST LLC

D/B/A MARATHON GALLUP REFINERY

SEPTEMBER 1, 2021

REVISED MARCH 11, 2022



Executive Summary

Analytical groundwater monitoring activities were completed at the Western Refining Southwest LLC (DBA Marathon Gallup Refinery) Gallup Refinery (Refinery) during 2020. Activities were not completed during the second quarter of 2020 due to the COVID-19 pandemic. Semiannual sampling was conducted during the third and fourth quarters of 2020. Activities include fluid level gauging, analytical sampling, and recovery activities. Groundwater monitoring at the Refinery is pursuant to the Resource Conservation and Recovery Act Post-Closure Permit and in accordance with the annual Facility Wide Groundwater Monitoring Work Plan.

The groundwater monitoring network at the Refinery consists of 107 locations. In addition, monitoring is conducted at production wells, surface sample locations, and leak detection units. These locations are sampled quarterly, semiannually, and annually as specified in the 2020 Facility Wide Groundwater Monitoring Work Plan (MPC 2021a). Fluid levels are measured monthly, quarterly, semiannually, and annually and depth to water and separate phase hydrocarbon depths were collected during 2020. These results were consistent with historical monitoring.

The groundwater monitoring analytical results were compared against the New Mexico Administrative Code Water Quality Commission 20.6.2.3103, Environmental Protection Agency (EPA) Maximum Contaminant Levels, New Mexico Environment Department Tap Water Screening Levels, and EPA Tap Water Screening Levels. Analytical results were consistent with historical results and are summarized below.

- The 2020 depth to groundwater in monitoring wells screened in the Alluvial/Fluvial upper sand aquifer ranged from a high of 20.33 ft below ground surface (bgs) (BW-5A in June 2020) to a low of 35.42 ft-bgs (BW-4A in March 2020). Based on the measured water level column in BW-4A and BW-5A (less than 0.5 ft), water detected in these wells may be due to previous accumulation in the well sump rather than representative of the groundwater potentiometric surface (see Table 3-1).
- The 2020 depth to groundwater in monitoring wells screened in the Chinle/Alluvium aquifer ranged from a high of 1.07 ft-bgs (MKTF-27 in February 2020) to a low of 41.96 ft-bgs (BW-4B in June 2020).
- The 2020 depth to groundwater in monitoring wells screened in the Sonsela aquifer ranged from a high of 0.21 ft above ground surface inside the well casing (BW-5C in March 2020) to a low of 45.37 ft-bgs (OW-12 in November 2020). BW-5C is on the northwest end of the property and is considered artesian.
- Measurable separate phase hydrocarbon (SPH) was detected during all four quarters in 2020: 23 monitoring wells during first quarter, 29 monitoring wells during second quarter, 37 monitoring wells during third quarter (i.e., the annual event), and 36 monitoring wells during fourth quarter. The measured SPH thickness ranged from 0.01 ft in multiple locations to 6.41 ft

Released to Imaging: 11/23/2022 10:12:17 AM



(MKTF-33) across the site during the 2020 annual event. SPH thicknesses measured in 2020 are presented in Table 3-1.

- In the Eastern Boundary wells, benzene, toluene, ethylbenzene, and total xylenes (BTEX) were not detected in the analytical data during 2020 with the exception of OW-56. OW-56 has historically had low level concentrations of benzene (less than 2.5 micrograms per liter [µg/L]), however, during 2020 benzene concentrations were detected at 547 µg/L during the fourth quarter of 2020. OW-56 will continue to be monitored quarterly and reported. Methyl tert butyl ether (MTBE) was detected in all of the Eastern Boundary monitoring wells sampled during 2020. MTBE detections and screening level exceedances are generally consistent with historical monitoring data, with the exception of OW-56. OW-56 MTBE concentrations increased from 11 ug/L (October 2019) to 70.8 ug/L (December 2020).
- BTEX and MTBE in the Tank Farm monitoring wells were detected. Benzene and ethylbenzene exceeded the screening level during all monitoring events during 2020 in the Tank Farm monitoring wells, which is consistent with historical monitoring. Toluene was detected during the 2020 monitoring events below the screening level which is consistent with historical monitoring results. MTBE was detected and exceeded the screening level in OW-58 and OW-58A during 2020. OW-57 and OW-63 exceeded the screening level for MTBE in two of the three quarters of 2020.
- In the Marketing Tank Farm (MKTF) Area, benzene was consistently detected above the screening level in monitoring wells within areas near the presence of SPH (Figure 3-4). Detections of ethylbenzene, toluene, and total xylenes were generally present in monitoring wells with elevated benzene detections with the exception of MKTF-38 during the first quarter of 2020. MTBE was detected above the screening level in the southeast and southwest portion of the MKTF area and in the northeast area. The detections for benzene and MTBE are generally consistent with historical results however, there are several instances where SPH is intermittently observed in the wells. Monitoring wells that have SPH are evacuated using a vacuum truck on a monthly basis.
- BTEX and MTBE have historically been detected in the WWT area monitoring wells. Monitoring wells that were sampled during 2020 continued to have elevated detections of benzene, ethylbenzene, and MTBE that are above the screening levels. The upgradient well NAPIS-1 has consistently had SPH and could not be sampled in 2020. In addition, it should be noted that benzene concentrations further upgradient in MKTF-49 and MKTF-50 are one to two orders of magnitude higher than concentrations observed in NAPIS-2 which had the highest benzene detects in the WWT area wells. Toluene and total xylenes were detected during 2020 but did not exceed the screening levels, similar to historical results.
- BTEX and MTBE were not detected in the solid waste management unit (SWMU) 1 monitoring wells during 2020. These monitoring wells historically have not had detections or exceedances of BTEX.

Released to Imaging: 11/23/2022 10:12:17 AM

- BTEX and MTBE were not detected in the land treatment unit area monitoring wells with the exception of MTBE in SMW-2. MTBE did not exceed the screening level in SWM-2 during 2020. SWM-2 has historically had detections of MTBE less than the screening level.
- In the Evaporation Ponds and outfall locations, BTEX and MTBE were reported as not detected during the two semiannual monitoring events in 2020. This is generally consistent with historical results.
- BTEX has continued to be non-detect in the Western Boundary monitoring wells. MTBE was detected in BW-5B during 2020 but did not exceed the screening level. MTBE in BW-5C was detected above the screening level during 2020. These results are consistent with previous monitoring events.
- BTEX was reported as non-detect in the deep monitoring wells with the exception of OW-12. OW-12 has historically not had detections of BTEX, however, BTEX was detected during the third quarter of 2020. Benzene and ethylbenzene were detected above the screening level. OW-12 is located downgradient of the tank farm. The monitoring frequency will be changed from annual to semiannual in 2022. MTBE was detected in all of the deep monitoring wells with the exception of OW-11. The MTBE monitoring data are generally consistent with historical analytical results. Per the Response to Approval with Modifications, Revised Investigation Work Plan North Drainage Ditch Area (MPC 2021c), a new monitoring well adjacent to OW-12 will be installed in the Chinle/Alluvium aquifer interface, which will allow for additional understanding of BTEX concentrations in this area. This new well will be monitored and reported on in the 2021 Annual Monitoring Report.
- Recovery activities will continue to take place and will be summarized in the Hydrocarbon Interim Measures Seep Reports, submitted quarterly to NMED. SPH recovery efforts appear to be having a positive impact on SPH thicknesses across the site.

Gauging and sampling requirements will continue in 2021 and will meet the most current NMED-approved Facility-Wide Groundwater Monitoring Work Plan. The 2021 Annual Groundwater Monitoring Report will be submitted no later than September 1, 2022. Site assessments will take place as required and NMED will be notified of remediation activities.

Received by OCD: 3/11/2022 2:16:23 PM



Table of Contents

Executive Summary 2
List of Tables 7
List of Figures 8
List of Appendices 9
List of Acronyms 10
1.0 Introduction 11
1.1 Facility Information 11
1.2 Site Characteristics 12
1.2.1 Geological Characteristics 12
1.2.2 Groundwater Characteristics 12
2.0 Monitoring Program 14
2.1 Groundwater Monitoring Network and Surface Sample Locations 14
2.2 Regulatory Criteria 14
2.3 Deviations from Work Plan 15
3.0 Fluid Level Results 17
3.1 Potentiometric Surface 17
3.2 SPH Detections 18
4.0 Sampling Results 19
4.1 Eastern Boundary Wells Analytical Results 19
4.2 Tank Farm Wells Analytical Results 21
4.3 Marketing Tank Farm Wells Analytical Results 22
4.4 Wastewater Treatment Area Analytical Results 24
4.5 SWMU 1 Area Analytical Results 25
4.6 LTU Area Analytical Results 27
4.7 Evaporation Ponds Analytical Results 28
4.8 Western Boundary Wells Analytical Results 29
4.9 Deep Monitoring Wells Analytical Results 30
4.10 QA/QC Analytical Results 32
4.10.1 Rejected Data 32

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM



4.10.2 Field Blanks 32
4.10.3 Trip Blanks 32
4.10.4 Equipment Blanks 33
4.10.5 Field Duplicates 33
5.0 Remediation Activities 34
6.0 Conclusions 35
7.0 References 38
Tables .....
Figures .....
Appendix A – 2020 Field Logs .....
Appendix B – Historical Fluid Level Measurements .....
Appendix C – 2020 Laboratory Analytical Reports .....
Appendix D – 2020 Data Validation Reports .....

Released to Imaging: 11/23/2022 10:12:17 AM

List of Tables

2-1. Groundwater Monitoring Program, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

2-2. Selected Screening Levels, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

3-1. Fluid Level Monitoring (2020), Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-1. 2020 Sampling Frequency, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-2. Volatile Organic Compounds Analytical Data, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-3. Semi-volatile Organic Compounds Analytical Data, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-4. Metals (Total) Analytical Data, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-5. Metals (Dissolved) Analytical Data, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-6. General Chemistry and Total Petroleum Hydrocarbon Analytical Data, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-7. Field Parameters (2020), Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

5-1. Recovery Well Data, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

Released to Imaging: 11/23/2022 10:12:17 AM

List of Figures

1-1. Topographical Map, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

1-2. Site Plan, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

2-1. Well Groups, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

3-1. Alluvial/Fluvial Upper Sand Aquifer Potentiometric Surface Map (2020), Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

3-2. Chinle/Alluvium Aquifer Potentiometric Surface Map (2020), Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

3-3. Sonsela Aquifer Potentiometric Surface Map (2020), Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

3-4. SPH Thickness Map (2020), Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-1. Eastern Boundary Monitoring Wells, BTEX and MTBE, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-2. Tank Farm Monitoring Wells, BTEX and MTBE, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-3. Marketing Tank Farm Monitoring Wells, BTEX and MTBE, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-4. Wastewater Treatment Area Monitoring Wells, BTEX and MTBE, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-5. SWMU 1 Monitoring Wells, BTEX and MTBE, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-6. LTU Monitoring Wells, BTEX and MTBE, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-7. Evaporation Pond Samples, BTEX and MTBE, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-8. Western Boundary Monitoring Wells, BTEX and MTBE, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

4-9. Deep Monitoring Wells, BTEX and MTBE, Western Refining Southwest LLC, Marathon Gallup Refinery, Gallup, New Mexico

List of Appendices

A. 2020 FIELD LOGS

A-1. 1ST QUARTER FIELD LOGS

A-2. 3RD QUARTER FIELD LOGS

A-3. 4TH QUARTER FIELD LOGS

B. HISTORICAL FLUID LEVEL MEASUREMENTS

B-1. HISTORICAL FLUID LEVEL MONITORING (2014-2020)

B-2. HYDROGRAPHS

B-2A. BW-1A HISTORICAL GROUNDWATER ELEVATIONS AND SPH THICKNESS – ALLUVIAL/FLUVIAL UPPER SAND AQUIFER

B-2B BW-1B HISTORICAL GROUNDWATER ELEVATIONS AND SPH THICKNESS – CHINLE/ALLUVIUM AQUIFER

B-2C. BW-1C HISTORICAL GROUNDWATER ELEVATIONS AND SPH THICKNESS – SONSELLA AQUIFER

C. 2020 LABORATORY ANALYTICAL REPORTS

C-1. 1ST QUARTER ANALYTICAL REPORTS

C-2. 3RD QUARTER ANALYTICAL REPORTS

C-3. 4TH QUARTER ANALYTICAL REPORTS

D. 2020 DATA VALIDATION REPORTS

D-1. 1ST QUARTER DATA VALIDATION REPORTS

D-2. 3RD QUARTER DATA VALIDATION REPORTS

D-3. 4TH QUARTER DATA VALIDATION REPORTS

List of Acronyms

%	percent
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and total xylenes
cm/sec	centimeters per second
DRO	diesel range organics
EPA	Environmental Protection Agency
ft	feet
ft/ft	feet per foot
GRO	gasoline range organics
LDU	leak detection unit
LTU	land treatment unit
MKTF	Marketing Tank Farm
MTBE	methyl tert butyl ether
msl	above mean sea level
NAPIS	New American Petroleum Institute Separator
NM	New Mexico
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
ORO	oil range organics
QA/QC	quality assurance/quality control
RCRA	Resource Conservation and Recovery Act
Refinery	Western Refining Southwest LLC (DBA Marathon Gallup Refinery)
RPD	relative percent difference
SPH	separate phase hydrocarbon
SWMU	solid waste management unit
SVOC	semi-volatile organic compound
TPH	total petroleum hydrocarbons
µg/L	micrograms per liter
VOC	volatile organic compound
WQCC	Water Quality Control Commission
WWT	wastewater treatment

1.0 Introduction

This report documents the groundwater gauging and sampling events for 2020, as it pertains to the Western Refining Southwest LLC (DBA Marathon Gallup Refinery) Gallup Refinery (Refinery). The Refinery is located at Exit 39 on Interstate I-40, approximately 17 miles east of Gallup, New Mexico (NM), in Jamestown, NM (Figure 1-1). This report is submitted pursuant to the Refinery's Resource Conservation and Recovery Act (RCRA) Post-Closure Permit (NM000333211) and contains the information the Refinery is required to report annually.

This report presents and evaluates the 2020 monitoring data outlined below:

- Fluid Level Gauging – Fluid levels are measured at the Refinery on a monthly, quarterly, semiannual, and annual basis. Results for groundwater fluid levels were generally similar to those measured in prior years. These data are detailed in Section 3.0.
- Analytical Groundwater Data – Groundwater samples are collected quarterly and annually each year. Results for groundwater samples are compared against the applicable New Mexico Environment Department (NMED) and the Environmental Protection Agency (EPA) screening levels. The analytical results are discussed in Section 4.0.
- Analytical Evaporation Pond Data – Evaporation pond samples are collected semiannually as surface samples each year. Results for the surface samples are compared against the applicable NMED and the EPA screening levels. The analytical results are discussed in Section 4.0.
- Analytical Outfall Data – STP-1 to EP-2 is monitored quarterly. In addition, other outfalls at the Refinery are collected following major storm events, if applicable. Only STP-1 to EP-2 was sampled during 2020. Results for the outfall samples are compared against the applicable NMED and the EPA screening levels. The analytical results are discussed in Section 4.0.
- Remediation Activities – Ongoing recovery activities take place at the Refinery. Activities completed during 2020 are described in Section 5.0.

1.1 Facility Information

Built in the 1950s, the Refinery is located within a rural and sparsely populated area east of Gallup, NM. The nearest population centers are the Pilot Flying J Travel Center refueling plaza, the Interstate 40 corridor, and a small cluster of residential homes located on the south side of Interstate 40 approximately 2 miles southwest of the Refinery (Jamestown).

The Refinery is currently indefinitely idled as of October 9, 2020. During operation, the Refinery was a crude oil refining and petroleum products manufacturing facility. There were no organic chemicals, plastics, or synthetic fibers manufactured that contributed to the process flow of wastewater. The Refinery did not manufacturer lubricating oils. As a result of the processing steps, the Refinery produced a wide range of petroleum products including propane, butane, unleaded gasoline, diesel, residual fuel, and commercial products of fertilizer and solid elemental sulfur.

When the Refinery was operating, it primarily received crude oil via two six-inch diameter pipelines from the Four Corners Area, which entered the Refinery property from the north. In addition, the Refinery also received natural gasoline feedstock via a four-in diameter pipeline that comes in from the west along the Interstate 40 corridor from the Western Refining Southwest LLC – Wingate Plant. Crude oil and other products also arrived at the Facility via railroad cars. These feed stocks were then stored in tanks until refined into products.

1.2 Site Characteristics

The Refinery is situated in the high desert plain on the western flank of the Continental Divide. The surrounding land is comprised primarily of public and private lands used for cattle and sheep grazing.

Site topographic features include high ground in the southeast gradually decreasing to a lowland fluvial plain to the northwest. Elevations on the Refinery property range from 7,040 feet (ft) to 6,860 ft. Surface soils within most of the area of investigation are primarily Rehobeth silty clay loam.

1.2.1 Geological Characteristics

Based on existing boring logs, shallow subsurface fluvial and alluvial soils are comprised of primarily clays and silts with minor inter-bedded sand layers. Very low permeability bedrock (e.g., claystones and siltstones) underlie the surface soils and effectively form an aquitard. The Chinle Group, from the Upper Triassic period, crops out over a large area on the southern margin of the San Juan Basin. The uppermost recognized local Formation is the Petrified Forest Formation. The Sonsela Sandstone bed is the uppermost recognized regional aquifer. Aquifer tests of the Sonsela Sandstone bed northeast of Prewitt, NM indicated a transmissivity of greater than 100 square ft per day (Stone et al. 1983). The highest point of the Sonsela Sandstone occurs southeast of the Refinery and slopes downward to the northwest as it passes under the Refinery. The Sonsela Sandstone forms a water-bearing reservoir with artesian conditions throughout the central and western portions of the Refinery property.

1.2.2 Groundwater Characteristics

Three aquifers sit below the Refinery: the Alluvial/Fluvial upper sand aquifer (previously referred to as the Upper Sand Unit), the Chinle/Alluvium aquifer, and the Sonsela aquifer. The 810-acre Refinery property site is located on a layered geologic formation. Surface soils generally consist of fluvial and alluvial deposits, primarily clay and silt with minor inter-bedded sand layers. Below the surface layer is the Chinle Formation, which consists of very low permeability clay stones and siltstones that comprise the shale of this formation. As such, the Chinle Formation effectively serves as an aquitard. Interbedded within the Chinle Formation is the Sonsela Sandstone bed, which represents the uppermost potential aquifer in the region. The Sonsela Sandstone bed lies within and parallels the dip of the Chinle Formation. As such, its high point is located southeast of the Refinery and it slopes downward to the northwest as it passes under the Refinery. Due to the confinement of the Chinle Formation aquitard, the Sonsela Sandstone bed acts as a water-bearing reservoir and is artesian at its lower extremis. Artesian conditions exist through much of the central and western portions of the Refinery property. Wells screened in the three aquifers are shown on Figure 1-2.

Groundwater flow within the Chinle Formation is extremely slow and typically averages less than 10^{-10} centimeters per second (cm/sec) (i.e., less than 0.01 feet per year). Groundwater flow within the surface soil layer, above the Chinle Formation, is highly variable due to the presence of complex and irregular stratigraphy including sand stringers, cobble beds, and dense clay layers. As such, hydraulic conductivity may range from 10^{-8} cm/sec (approximately 0.01 foot per year) in the clay soil layers located near the surface and up to 10^{-2} cm/sec (approximately 10,000 feet per year) in the gravelly sands immediately overlying the Chinle Formation.

Shallow groundwater located under Refinery property generally flows along the upper contact of the Chinle Formation. Although the prevailing regional flow direction is from the southeast and toward the northwest, in the tank farm area flow is in a northeasterly direction, and in the southern marketing area flow is generally in a westerly direction.

The diverse properties and complex, irregular stratigraphy of the surface soils across the Refinery cause a wide range of hydraulic conductivity ranging from less than 10^{-2} cm/sec (approximately 10,000 feet per year) for gravel-like sands immediately overlying the Petrified Forest Formation to 10^{-8} cm/sec (approximately 0.01 foot per year) in the clay soils located near the surface. Generally, shallow groundwater at the Refinery follows the upper contact of the Petrified Forest Formation (Chinle Group) with prevailing flow from the southeast to the northwest, although localized areas may have varying flow directions based on the subsurface geology.

2.0 Monitoring Program

Groundwater monitoring at the Refinery is pursuant to the RCRA Post-Closure Permit (NM000333211). Groundwater sampling, fluid level measurements, and surface water samples are completed in accordance with the "Approval with Modifications, Disapproval Facility Wide Ground Water Monitoring Work Plan – Updates for 2020" (2020 Work Plan) (MPC 2021a) with the exception of deviations noted in Section 2.3. The groundwater monitoring network at the Refinery consists of 107 locations. This network includes 90 monitoring wells in the Chinle/Alluvium aquifer, 13 monitoring wells in the Sonsela aquifer, and 5 monitoring wells in the Alluvial/Fluvial upper sand aquifer. In addition to the monitoring wells, there are also three production wells at the Refinery: PW-2, PW-3, and PW-4. There are 11 surface water samples at the Refinery that are collected at the Evaporation Ponds. Three Leak Detection Units (LDUs) are monitored and are associated with the New American Petroleum Institute Separator (NAPIS). There is also one outfall monitoring location near the Evaporation Ponds, STP-1 to EP-2. The groundwater monitoring network is sampled quarterly, semiannually, and annually. The frequency of the monitoring program is listed in Table 2-1. The monitoring program analyses were completed to provide a comprehensive understanding of the dissolved phase contamination under the Refinery. These analyses are also included in Table 2-1.

2.1 Groundwater Monitoring Network and Surface Sample Locations

The monitoring well program is broken into nine groups. The groups were selected based on areas of the Refinery and are organized from upstream to downstream. The Refinery production wells are included in the deep monitoring well group. The nine groups are presented below and shown on Figure 2-1:

- Eastern Boundary
- Tank Farm
- Marketing Tank Farm
- Wastewater Treatment (WWT)
- Solid Waste Management Unit (SWMU) 1
- Land Treatment Unit (LTU)
- Evaporation Ponds
- Western Boundary
- Deep Monitoring Wells

2.2 Regulatory Criteria

Groundwater analytical monitoring results are compared against the following screening levels:

- Water Quality Control Commission New Mexico Administrative Code (NMAC) 20.6.2.3103
- EPA Drinking Water Maximum Contaminant Levels (MCL)



- NMED Tap Water Screening Levels (2019)
- EPA Tap Water Screening Levels, Hazard Quotient of 1.0

Per the RCRA Post-Closure Permit (ND000333211) Section IV.D.1, "the cleanup levels for all contaminants in groundwater shall be the [Water Quality Control Commission] WQCC groundwater quality standards, 20.6.2.3103 NMAC, the cleanup levels for toxic pollutants calculated in accordance with 20.6.2.7.[T] NMAC, and the drinking water MCLs adopted by EPA under the federal Safe Drinking Water Act (42 U.S.C. §§ 300f to 300j-26) or the New Mexico Environmental Improvement Board (EIB), 20.7.10 NMAC. If both a WQCC water quality standard and an MCL have been established for an individual substance, then the lower of the levels shall be the cleanup level for that substance.

The most recent version of NMED's Tap Water Screening Levels listed in Table A-1 of Technical Background Document for Development of Soil Screening Levels (as updated) shall be used to establish the cleanup level if either a WQCC standard or an MCL has not been established for a specific substance. In the absence of an NMED tap water screening level then the EPA Regional Screening Levels for Chemical Contaminants at Superfund Sites (RSLs) for tap water shall be used."

The four cleanup levels as well as the specific cleanup level selected for analytical result comparison are presented in Table 2-2. A fifth cleanup level, NMED Total Petroleum Hydrocarbons (TPH), is included on Table 2-2 to compare TPH-diesel range organics (DRO), -gasoline range organics (GRO), and -oil range organics (ORO) and motor oil. Analytical results that exceeded the cleanup levels are discussed in Section 4.0 and noted on the applicable tables.

2.3 Deviations from Work Plan

During 2020, field activities were conducted in accordance with the 2020 Work Plan (MPC 2021a) with the following exceptions:

- Monitoring activities did not take place during the second quarter of 2020 due to the COVID-19 pandemic. Therefore, semiannual sampling took place during the third and fourth quarters of 2020.
- Several monitoring wells were not sampled due to separate phase hydrocarbon (SPH) being detected or a sheen identified during the monitoring period. Monitoring wells with SPH are noted in Section 3.2 and provided in Table 3-1.
- Monitoring well, MKTF-34 was inadvertently sampled twice during the first quarter of 2020. Analytical results from both first quarter events are presented.
- Elevated hydrogen sulfide readings in the ambient air around the NAPIS prevented sampling personnel from entering the area to perform gauging and sampling.
- Monitoring wells without sufficient water were not sampled during the monitoring period. These wells are noted in Section 4.0.
- Analytical results with reporting limits greater than their respective screening levels are noted in Tables 4-2 through 4-7 in italics.



- Some monitoring wells had field parameters outside of the stabilization criteria prior to sample collection. Field parameter measurements taken for the purpose of stabilization are provided in Appendix A.
- Some analytical data were rejected based on data validation qualifiers applied to the results. These data are discussed in Section 4.10.

Released to Imaging: 11/23/2022 10:12:17 AM

3.0 Fluid Level Results

Fluid levels are measured monthly, quarterly, semiannually, and annually depending on the monitoring well. Fluid level measurements are recorded as ft below measuring point on the field logs and converted to ft below ground surface (bgs) for reporting. Fluid level data and SPH measurements collected during 2020 are summarized in Table 3-1. The following sub-sections discuss the potentiometric surface maps and SPH detections and thicknesses (which is not necessarily indicative of what is in the formation). Field logs for the 2020 fluid level activities are included in Appendix A. Figures presented in the following sub-sections utilized the third quarter annual monitoring event. Historical fluid level measurements and hydrographs are included as Appendix B-1 and Appendix B-2, respectively.

3.1 Potentiometric Surface

Figures 3-1 through 3-3 illustrate the potentiometric surfaces at the Refinery based on fluid levels measured in each of the three aquifers. Prevailing groundwater flow in the Refinery is from the southeast towards the northwest, however, in the tank farm the flow is generally in a northeasterly direction, and in the southern marketing tank farm area the flow is generally in a westerly direction.

The Alluvial/Fluvial upper sand aquifer is monitored with five groundwater monitoring wells (BW-1A, BW-2A, BW-3A, BW-4A, and BW-5A) (Figure 3-1). The depth to groundwater of BW-2A was 30.12 ft-bgs during the annual monitoring event of 2020. Groundwater elevation was approximately 6841.76 ft above mean sea level (msl) during the annual monitoring event. The groundwater elevation of BW-2A has stayed consistent with previous gauging events. Groundwater was detected once in BW-4A at 35.42 ft-bgs and the groundwater elevation was approximately 6834.84 ft ft-msl in the first quarter during 2020. Groundwater was detected twice in BW-5A at 20.33 ft-bgs and 20.39 ft-bgs and 6853.79 ft-msl and 6853.73 ft-msl in the second and fourth quarter, respectively. Based on the measured water level column in BW-4A and BW-5A (less than 0.5 ft), water detected in these wells may be due to previous accumulation in the well sump rather than representative of the groundwater potentiometric surface (Table 3-1).

The Chinle/Alluvium aquifer includes monitoring wells across the Refinery (Figure 3-2). A total of 88 monitoring wells were gauged during the third quarter of 2020. The 2020 depth to groundwater in monitoring wells screened in the Chinle/Alluvium aquifer ranged from a high of 1.07 ft- bgs (MKTF-27 in February 2020) to a low of 41.96 ft-bgs (BW-4B in June 2020). Groundwater elevations ranged from 6828.48 ft-msl (BW-4B) to 6950.55 ft-msl (MKTF-47). Groundwater elevations have remained generally consistent with previous events.

The Sonsela aquifer includes monitoring wells outside of the Refinery process area and tank farm (Figure 3-3). The 2020 depth to groundwater in monitoring wells screened in the Sonsela aquifer ranged from a high of 0.21 ft above ground surface inside the well casing (BW-5C in March 2020) to a low of 45.37 ft-bgs (OW-12 in November 2020). BW-5C is on the northwest end of the property and is considered artesian. Groundwater elevations ranged from 6853.98 ft-msl (BW-2C) to 6905.00 ft-msl (OW-11). Groundwater elevations have remained consistent with previous monitoring events.

3.2 SPH Detections

Measurable SPH was detected during all four quarters in 2020: 23 monitoring wells during first quarter, 29 monitoring wells during second quarter, 37 monitoring wells during third quarter (i.e., the annual event), and 36 monitoring wells during fourth quarter. The measured SPH thickness ranged from 0.01 ft in multiple locations to 6.41 ft (MKTF-33) across the site during the 2020 annual event. SPH thicknesses measured in 2020 are presented in Table 3-1.

Monitoring wells with measurable SPH for the third quarter of 2020 are shown on Figure 3-4. Fluid levels and SPH thicknesses for all of 2020 are presented in Table 3-1. SPH recovery efforts from the standpipes and the retention ditch continued during 2020 and are detailed in Section 5.0.

There is a cluster of SPH detections in the marketing area that has been extensively evaluated in the Marketing Tank Farm Laser-Induced Fluorescence/Hydraulic Profiling Investigation Report (MPC 2021b). In addition, there is a cluster of SPH detections in the tank farm area where Laser Induced Fluorescence (LIF) was conducted and will be summarized in the Tank 570 Release and Additional Areas LIF report submitted to NMED on November 1, 2021 (MPC 2021d).



4.0 Sampling Results

Groundwater quality monitoring was performed in accordance with the 2020 Work Plan (MPC 2021a). A summary of the monitoring events and samples that were collected is presented in Table 4-1. Monitoring wells that contained detectable SPH during fluid level monitoring were not sampled. Monitoring program locations that did not contain detectable SPH during fluid level monitoring were sampled and the data analyzed by Hall Environmental Laboratory. The analytical data were compared against the screening levels, as detailed in Section 2.2.

The analytical results are described in the following sections. The analytical tables include the results from the most current monitoring event and the previous three monitoring events. Volatile organic compounds (VOCs) are presented in Table 4-2. Semi-volatile organic compounds (SVOCs) are presented in Table 4-3. Total and dissolved metal analytical results are presented in Tables 4-4 and 4-5, respectively. General chemistry analyses are presented in Table 4-6. Field parameters collected prior to sampling are presented in Table 4-7 and 2020 field logs are included in Appendix A. The 2020 analytical laboratory reports are included in Appendix C.

Specific laboratory analyses performed on samples from each monitoring locations are detailed in the 2020 Work Plan (MPC 2021a). Generally, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total and dissolved metals, and general chemistry analyses were performed, as discussed in the following sub-sections. Field parameters were also collected prior to sample collection and are discussed below.

Figures 4-1 through 4-9 present benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tert butyl ether (MTBE) data results. Other constituents were detected in the monitoring wells (see Tables 4-2 through 4-7) but are not included on the figures.

4.1 Eastern Boundary Wells Analytical Results

The Eastern Boundary wells are screened in the Chinle/Alluvium aquifer. These wells are located to the north and downgradient of the Tank Farm area (Figure 4-1). These monitoring wells are sampled on a quarterly basis. OW-14, 30, 54, and 55 were not sampled due to the recovery systems installed on the wells. OW-53 was dry during 2020 and was not sampled (Table 4-1).

The 2020 detected analytical results for the Eastern Boundary monitoring wells that exceeded the screening levels are noted in Tables 4-2 through 4-6 as bolded results. Non-detected sampling results with reporting limits greater than the applicable screening levels are noted with italics in the applicable tables. Wells that were not sampled and the cause (e.g., SPH) are included in Tables 4-2 through 4-6. Samples from wells OW-50 and OW-52 were analyzed in the laboratory for conductivity, TDS, soluble, salt, pH, resistivity, and temperature. However, field data for these constituents are considered to be more accurate (Table 4-7). A summary of the analytical data is presented below:

- VOC – 1,1-Dichloroethane, 1,2,4-Trimethylbenzene, 1,2-Dichloroethane, 1,3,5-Trimethylbenzene, 2-Butanone, Acetone, BTEX, Isopropylbenzene, n-Propylbenzene, and MTBE were detected in the Eastern Boundary wells. 1,2,4-Trimethylbenzene, 1,2-Dichloroethane,

Released to Imaging: 11/23/2022 10:12:17 AM



Benzene and MTBE were detected above the selected screening level. 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichloroethane, 1,2-Dichloropropane, 2-Hexanone, Benzene, Bromodichloromethane, Bromoform, Bromomethane, Carbon tetrachloride, cis-1,3-Dichloropropene, Dibromo-chloromethane, Dibromomethane, Hexachlorobutadiene, Methylene Chloride, Tetrachloroethene, trans-1,3-Dichloropropene, Trichloroethene, and Vinyl Chloride had detection limits above the selected screening level. Data are presented in Table 4-2.

- SVOC – 1,4-Dioxane and Bis(2-ethyl hexyl)phthalate were detected in the Eastern Boundary wells. 1,4-Dioxane was detected above the selected screening level. Hexachloro Benzene and Hexachlorocyclopentadiene had detection limits above the selected screening level. Data are presented in Table 4-3.
- Total Metals – Aluminum, Arsenic, Barium, Beryllium, Boron, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Uranium, and Zinc were detected in the Eastern Boundary wells. Aluminum, Chromium, Cobalt, Iron, Manganese, and Uranium were detected above the selected screening level. Beryllium, Cadmium, Cobalt, and Molybdenum had detection limits above the selected screening level. Data are presented in Table 4-4.
- Dissolved Metals – Aluminum, Arsenic, Barium, Boron, Calcium, Cobalt, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Uranium, and Zinc were detected in the Eastern Boundary wells. Manganese was detected above the selected screening level. Cadmium, Cobalt, and Molybdenum had detection limits above the selected screening level. Data are presented in Table 4-5.
- General Chemistry – Bromide, COD, Chloride, Fluoride, Nitrate (as Nitrogen), Nitrate & Nitrite (as Nitrogen), Ortho-Phosphorus, Sulfate, DRO, GRO, C28-C40, TPH (C6-C10), TDS, TSS, and Soluble Salt were detected in the Eastern Boundary wells. Chloride, DRO, and GRO were detected above the selected screening level. Fluoride, Nitrite (as Nitrogen), DRO, GRO, Motor Oil, and ORO had detection limits above the selected screening level. Data are presented in Table 4-6.

Analytical results for BTEX and MTBE are presented on Figure 4-1. BTEX in the Eastern Boundary Area was not detected in the sampled wells during 2020 with the exception of OW-56. OW-56 has historically had low level concentrations of benzene (less than 2.5 micrograms per liter[µg/L]), however, during 2020 benzene concentrations were detected at 547 µg/L during the fourth quarter of 2020. OW-56 will continue to be monitored quarterly and reported. Ethylbenzene, toluene, and total xylenes have not historically been detected in monitoring well OW-56 but were detected the last two quarters of 2020. MTBE was detected in all of the Eastern Boundary monitoring wells during 2020. MTBE detections and screening level exceedances are generally consistent with historical monitoring data, with the exception

of OW-56. OW-56 MTBE concentrations increased from 11 ug/L (October 2019) to 70.8 ug/L (December 2020). Monitoring of the Eastern Boundary Area will continue on a quarterly basis.

4.2 Tank Farm Wells Analytical Results

The Tank Farm monitoring wells are screened in the Chinle/Alluvium aquifer. These wells are located within the Tank Farm area and are sampled on a quarterly basis (Figure 4-2). RW-1, 2, 5, and 6 were not sampled due to the recovery systems installed on the wells (Table 4-1).

The 2020 detected analytical results for the Tank Farm monitoring wells that exceeded the screening levels are noted in Tables 4-2 through 4-6 as bolded results. Non-detected sampling results with reporting limits greater than the applicable screening levels are noted with italics in the applicable tables. Wells that were not sampled and the cause (e.g., SPH) are included in Tables 4-2 through 4-6. Field parameters are provided in Table 4-7. A summary of the analytical data is presented below:

- VOCs – 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Acetone, Benzene, Ethylbenzene, Isopropylbenzene, MTBE, n-Butylbenzene, n-Propylbenzene, p-Isopropyltoluene, sec-Butylbenzene, tert-Butyl- benzene, Toluene, and Xylenes were detected in the Tank Farm wells. 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Benzene, Ethylbenzene, MTBE, and Xylenes were detected above the selected screening standard. 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4- Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,4-Dichlorobenzene, 2-Hexanone, Bromobenzene, Bromodichloromethane, Bromoform, Bromomethane, Carbon Disulfide, Carbon tetrachloride, Chlorobenzene, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-dichlorpropene, Dibromochloromethane, Dibromomethane, Dichlorodifluoromethane, Hexachlorobutadiene, Methylene Chloride, Styrene, Tetrachloroethene, trans-1,2-Dichloroethene, trans-1,3- Dichloropropene, Trichloroethene, Vinyl Chloride, and Xylenes had detection limits above relevant standard. Data are presented in Table 4-2.
- SVOCs – 1-Methylnaphthalene, 2,4-Dimethylphenol, 2-Methynaphthalene, 2-Methylphenol, 3,4-Methylphenol, Acenaphthene, Bis(2-ethyl hexyl)phthalate, Carbazole, Dibenzofuran, Fluoranthene, Fluorene, Naphthalene, Phenanthrene, Phenol, and Pyrene were detected in the Tank Farm wells. 1-Methylnaphthalene, 2-Methylnaphthalene, and Naphthalene were detected above the selected screening standard. 1,4-Dioxane, 2,4-Dinitro Toluene, 2,6-Dinitro Toluene, 3,3'-Dichloro-benzidine, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Bis(2-chloro ethyl)ether, Dibenz(a,h)anthracene, Hexachloro Benzene, Hexachlorocyclopentadiene, Hexachloroethane, Nitro-benzene, N-Nitroso-dimethylamine, N-Nitrosodi-n-propylamine, Pentachloro- phenol, and Benzidine had detection limits above relevant standard. Data are presented in Table 4-3.

- Total Metals – Aluminum, Arsenic, Barium, Beryllium, Boron, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Uranium, and Zinc were detected in the Tank Farm wells. Aluminum, Barium, Iron, and Manganese were detected above the selected screening standard. Beryllium, Cadmium, Cobalt, and Molybdenum had detection limits above relevant standard. Data are presented in Table 4-4.
- Dissolved Metals – Aluminum, Arsenic, Barium, Boron, Calcium, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Uranium, and Zinc were detected in the Tank Farm wells. Barium and Manganese were detected above the selected screening standard. Beryllium, Cadmium, Cobalt, and Molybdenum had detection limits above relevant standard. Data are presented in Table 4-5.
- General Chemistry – Bromide, Chloride, Fluoride, Nitrate (as Nitrogen), Nitrate & Nitrite (as Nitrogen), Sulfate, DRO, GRO, ORO, C28-C40, TPH (C6-C10) were detected in the Tank Farm wells. Fluoride, DRO, GRO, and ORO were detected above the selected screening standard. DRO and ORO had detection limits above relevant standard. Data are presented in Table 4-6.

Analytical results for BTEX and MTBE are presented on Figure 4-2. BTEX and MTBE in the Tank Farm monitoring wells were detected. Benzene and ethylbenzene exceeded the screening level during all monitoring events during 2020 in the Tank Farm monitoring wells, which is consistent with historic monitoring. Toluene was detected during the 2020 monitoring events below the screening level which is consistent with historical monitoring results. MTBE was detected and exceeded the screening level in OW-58 and OW-58A during 2020. OW-57 and OW-63 exceeded the screening level for MTBE in two of the three quarters of 2020. The Tank Farm monitoring wells will continue to be monitored quarterly.

4.3 Marketing Tank Farm Wells Analytical Results

The Marketing Tank Farm (MKTF) monitoring wells are screened in the Chinle/Alluvium aquifer. These wells are located to the west and north of the Marketing Tank Farm area (Figure 4-3). These monitoring wells are sampled on a quarterly basis. Seventeen monitoring wells had SPH detected in them during the three monitoring events during 2020. These monitoring wells were not sampled during 2020 (Table 4-1).

The 2020 detected analytical results for the Marketing Tank Farm monitoring wells that have exceeded the screening levels are noted in Tables 4-2 through 4-6 as bolded results. Non-detected sampling results with reporting limits greater than the applicable screening levels are noted with italics in the applicable tables. Wells that were not sampled and the cause (e.g., SPH) are included in Tables 4-2 through 4-6. Field parameters are provided in Table 4-7. A summary of the analytical data is presented below:

- VOCs – 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2,4-Trimethylbenzene, 1,2-Dibromoethane, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,4-Dichlorobenzene, 1,4-Dioxane, 2-Butanone, 4-Methyl-2-Pentanone,



Acetone, Benzene, Carbon Disulfide, Chloroethane, Chloroform, cis-1,2-Dichloroethene, Ethylbenzene, Isopropylbenzene, MTBE, n-Butylbenzene, n-Propylbenzene, p-Isopropyltoluene, sec-Butylbenzene, Styrene, Tetrachloroethene, Toluene, Trichloroethene, Vinyl Chloride, and Xylenes were detected in the Marketing Tank Farm wells. 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2,4-Trimethylbenzene, 1,2-Dibromoethane, 1,2-Dichloroethane, 1,3,5-Trimethylbenzene, 1,4-Dioxane, Benzene, Ethylbenzene, MTBE, Toluene, Trichloroethene, Vinyl Chloride, and Xylenes were detected above the selected screening level. 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4- Trichlorobenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,4-Dichlorobenzene, 2-Hexanone, Bromodichloromethane, Bromoform, Bromomethane, Carbon tetrachloride, Chlorobenzene, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-dichloropropene, Dibromo-chloromethane, Dibromomethane, Hexachloro-butadiene, Methylene Chloride, Tetrachloroethene, trans-1,3-Dichloropropene, Trichloroethene, Vinyl Chloride, and Xylenes had detection limits above the selected screening level. Data are presented in Table 4-2.

- SVOCs – 1,4-Dichlorobenzene, 1,4-Dioxane, 1-Methylnaphthalene, 2,4-Dimethylphenol, 2-Methylnaphthalene, 2-Methyl phenol, 3,4-Methyl phenol, Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)-anthracene, Benzoic Acid, Benzyl Alcohol, Bis(2-ethyl hexyl)phthalate, Carbazole, Chrysene, Dibenzofuran, Diethylphthalate, Fluorene, Naphthalene, Phenanthrene, Phenol, and Pyrene were detected in the Marketing Tank Farm wells. 1,4-Dioxane, 1-Methylnaphthalene, 2-Methylnaphthalene, and Naphthalene were detected above the selected screening level. 1,4-Dioxane, 2,4,6-Trichlorophenol, 2,4-Dichlorophenol, 2,4-Dinitrophenol, 2,4-Dinitro Toluene, 2,6-Dinitro Toluene, 3,3'-Dichloro-benzidine, Acenaphthylene, Aniline, Azobenzene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Bis(2-chloro ethyl)ether, Bis(2chloro isopropyl)ether, Chrysene, Dibenz(a,h) anthracene, Hexachloro Benzene, Hexachlorocyclopentadiene, Hexachloroethane, Naphthalene, Nitro-benzene, N-Nitroso-dimethylamine, N-Nitrosodi-n-propylamine, Pentachlorophenol, and Benzidine had detection limits above the selected screening level. Data are presented in Table 4-3.
- Total Metals – All total metals were detected in the Marketing Tank Farm wells. Aluminum, Arsenic, Barium, Beryllium, Cobalt, Iron, Lead, Manganese, and Uranium were detected above the selected screening level. Antimony, Arsenic, Beryllium, Cadmium, Cobalt, Molybdenum, Thallium, and Uranium had detection limits above the selected screening level. Data are presented in Table 4-4.
- Dissolved Metals – All dissolved metals were detected in the Marketing Tank Farm wells. Antimony, Arsenic, Barium, Beryllium, Cadmium, Cobalt, Iron, and Manganese were detected above the selected screening level. Antimony, Cadmium, Cobalt, Molybdenum, and Thallium had detection limits above the selected screening level. Data are presented in Table 4-5.

- General Chemistry – Bromide, Chloride, COD, Fluoride, Nitrate & Nitrite, Nitrate (as Nitrogen), Nitrite (as Nitrogen), Ortho-Phosphorus, Sulfate, DRO, GRO, C28-C40, TPH (C6-C10), TDS, TSS, Soluble Salt and *E-Coli* were detected in the Marketing Tank Farm wells. Chloride, Fluoride, Nitrate (as Nitrogen), DRO, and GRO were detected above the selected screening levels. Nitrite (as Nitrogen), DRO, GRO, and ORO had detection limits above the selected screening level. Data are presented in Table 4-6.

Analytical results for BTEX and MTBE are presented on Figure 4-3. Benzene was consistently detected above the screening level in MKTF monitoring wells within areas near the presence of SPH. Detections of ethylbenzene, toluene, and total xylenes were generally present in monitoring wells with elevated benzene detections with the exception of MKTF-38 during the first quarter of 2020. MTBE was detected above the screening level in the southeast and southwest portion of the MKTF area and in the northeast area. These detections for benzene and MTBE are generally consistent with historical results however, there are several instances where SPH is intermittently observed in the wells.

These monitoring wells will continue to be sampled on a quarterly basis. In addition, monitoring wells that have SPH will be evacuated using a vacuum truck on a monthly basis. These recovery activities will be reported in the 2021 Annual Groundwater Report.

4.4 Wastewater Treatment Area Analytical Results

The WWT area monitoring wells are screened in the Chinle/Alluvium aquifer. In addition, there are three LDUs that monitor the integrity of the NAPIS. These WWTP area monitoring wells and LDUs are sampled on a quarterly basis (Figure 4-4). The LDU-East, LDU-West, Oil Sump LDU, NAPIS-1, STP1-NW, and STP1-SW were not sampled during at least one of the quarters due to the presence of elevated hydrogen sulfide readings which prevented sampling activities to be performed (Table 4-1).

The 2020 detected analytical results for the WWT monitoring wells and LDUs that have exceeded the screening levels are noted in Tables 4-2 through 4-6 as bolded results. Non-detected sampling results with reporting limits greater than the applicable screening levels are noted with italics in the applicable tables. Wells that were not sampled and the cause (e.g., SPH) are included in Tables 4-2 through 4-6. Field parameters are provided in Table 4-7. A summary of the analytical data is presented below:

- VOCs – 1,1-Dichloroethane, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, 2-Butanone, Acetone, Benzene, Carbon Disulfide, Ethylbenzene, Isopropylbenzene, MTBE, n-Butylbenzene, n-Propylbenzene, p-Isopropyltoluene, sec-Butylbenzene, tert-Butylbenzene, Toluene, and Xylenes were detected in the Wastewater Treatment wells. Benzene and MTBE were detected above the selected screening level. 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, cis-1,3-dichloropropene, Hexachloro-butadiene, and trans-1,3-Dichloropropene had detection limits above the selected screening level. Data are presented in Table 4-2.
- SVOCs – 1,4-Dioxane, 1-Methylnaphthalene, 2-Methylnaphthalene, Acenaphthene, Acenaphthylene, Anthracene, Benzoic Acid, Benzyl Alcohol, Bis(2-ethyl hexyl)phthalate, Carbazole, Dibenzofuran, Fluorene, Naphthalene, Phenanthrene, Phenol, Pyrene, and Pyridine



were detected in the Wastewater Treatment wells. 1-Methylnaphthalene was detected above the selected screening level. 1,4-Dioxane, 2,4,6-Trichlorophenol, 2,4-Dinitrophenol, 2,4-Dinitro Toluene, 2,6-Dinitro Toluene, 3,3'-Dichlorobenzidine, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Bis(2-chloro ethyl)ether, Bis(2chloro isopropyl)ether, Dibenz(a,h) anthracene, Hexachloro Benzene, Hexachlorocyclopentadiene, Hexachloroethane, Nitro-benzene, N-Nitroso-dimethylamine, N-Nitrosodi-n-propylamine, Pentachlorophenol, and Benzidine had detection limits above the selected screening level. Data are presented in Table 4-3.

- Total Metals – Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Uranium, and Zinc were detected in the Wastewater Treatment wells. Aluminum, Barium, Chromium, Cobalt, Iron, Manganese, Nickel, and Uranium were detected above the selected screening level. Cobalt, Molybdenum, and Thallium had detection limits above the selected screening level. Data are presented in Table 4-4.
- Dissolved Metals – Aluminum, Arsenic, Barium, Beryllium, Boron, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Uranium, and Zinc were detected in the Wastewater Treatment wells. Aluminum, Barium, Chromium, Cobalt, Iron, Manganese, and Nickel were detected above the selected screening level. Cobalt, Molybdenum, and Thallium had detection limits above the selected screening level. Data are presented in Table 4-5.
- General Chemistry – Bromide, Chloride, Fluoride, Nitrate (as Nitrogen), Sulfate, DRO, GRO, ORO, C28-C40, and TPH (C6-C10) were detected in the Wastewater Treatment wells. Chloride, Fluoride, Nitrate (as Nitrogen), DRO, GRO, and ORO were detected above the selected screening level. DRO, GRO, and ORO, had detection limits above the selected screening level Data are presented in Table 4-6.

Analytical results for BTEX and MTBE are presented on Figure 4-4. BTEX and MTBE have historically been detected in the WWT area monitoring wells. Monitoring wells that were sampled during 2020 continue to have elevated detections of benzene, ethylbenzene, and MTBE that are above the screening levels. The upgradient well NAPIS-1 has consistently had SPH and could not be sampled in 2020. In addition, it should be noted that benzene concentrations further upgradient in MKTF-49 and MKTF-50 are one to two orders of magnitude higher than concentrations observed in NAPIS-2 which had the highest benzene detects in the WWT area wells. Toluene and total xylenes were detected during 2020 but did not exceed the screening levels, similar to historic results.

4.5 SWMU 1 Area Analytical Results

The SWMU-1 monitoring wells are screened in the Chinle/Alluvium aquifer. SWMU-1 is no longer in use. These wells monitor the aeration lagoons (AL-1 and AL-2) and Evaporation Pond 1 (EP-1) and are



sampled on a quarterly basis (Figure 4-5). GWM-1 was not sampled due to the presence of SPH in the monitoring well during 2020. GWM-2 and 3 were dry during all quarters in 2020 (Table 4-1).

The 2020 detected analytical results for the SWMU 1 monitoring wells that have exceeded the screening levels are noted in the applicable tables as bolded results. Non-detected sampling results with reporting limits greater than the applicable screening levels are noted with italics in the applicable tables. Wells that were not sampled and the cause (e.g., SPH) are included in Tables 4-2 through 4-6. Field parameters are provided in Table 4-7. A summary of the analytical data is presented below:

- VOCs – Acetone and MTBE were detected in the SWMU 1 wells. No VOCs were detected above the selected screening level. 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, cis-1,3-dichloropropene, Hexachloro-butadiene, and trans-1,3-Dichloropropene had detection limits above the selected screening level. Data are presented in Table 4-2.
- SVOCs - 1,4-Dioxane, Benzoic Acid, Benzyl Alcohol, and Bis(2-ethyl hexyl)phthalate were detected in the SWMU 1 wells. 1,4-Dioxane was detected above the selected screening level. 2,4-Dinitro Toluene, 2,6-Dinitro Toluene, 3,3'-Dichlorobenzidine, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Bis(2-chloro ethyl)ether, Bis(2chloro isopropyl)ether, Dibenz(a,h)anthracene, Hexachloro Benzene, Hexachlorocyclopentadiene, Hexachloro-ethane, Nitro-benzene, N-Nitroso-dimethylamine, N-Nitrosodi-n-propylamine, Pentachloro- phenol, and Benzidine had detection limits above the selected screening level. Data are presented in Table 4-3.
- Total Metals – Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Uranium, and Zinc were detected in the SWMU 1 wells. Aluminum, Arsenic, Beryllium, Chromium, Cobalt, Iron, Lead, and Uranium were detected above the selected screening level. Antimony, Cobalt, Molybdenum, and Thallium had detection limits above the selected screening level. Data are presented in Table 4-4.
- Dissolved Metals – Aluminum, Arsenic, Barium, Beryllium, Boron, Calcium, Chromium, Iron, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Uranium, and Zinc were detected in the SWMU 1 wells. No dissolved metals were detected above the selected screening level. Antimony, Cobalt, Molybdenum, and Thallium had detection limits above the selected screening level. Data are presented in Table 4-5.
- General Chemistry – Bromide, Chloride, Nitrate (as Nitrogen), Sulfate, DRO, GRO, and TPH (C6-C10) were detected in the SWMU 1 wells. Chloride, Nitrate (as Nitrogen), Sulfate, DRO, and GRO were detected above the selected screening level. Nitrite (as Nitrogen), DRO, GRO, and ORO had detection limits above the selected screening level. Data are presented in Table 4-6.

As shown on Figure 4-5, BTEX and MTBE were not detected in the SWMU 1 monitoring wells during 2020. These monitoring wells historically have not had detections or exceedances of BTEX.

Released to Imaging: 11/23/2022 10:12:17 AM

4.6 LTU Area Analytical Results

The LTU Area monitoring wells are located in the area of the RCRA-closed LTU and are sampled on an annual basis (Figure 4-6). Some of the LTU Area wells are screened in the Sonsela aquifer and are noted with the MW designation. The remaining wells in the LTU area are screened in the Chinle/Alluvium aquifer and are noted with the SMW designation. These monitoring wells are sampled on an annual basis.

The 2020 detected analytical results for the LTU Area monitoring wells that have exceeded the screening levels are noted in Tables 4-2 through 4-6 as bolded results. Non-detected sampling results with reporting limits greater than the applicable screening levels are noted with italics in the applicable tables. Wells that were not sampled and the cause (e.g., SPH) are included in Tables 4-2 through 4-6. Field parameters are provided in Table 4-7. A summary of the analytical data is presented below:

- VOCs – Acetone and MTBE was detected in the LTU wells. No VOCs were detected above the selected screening level. 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, and 1,2-Dibromoethane had detection limits above the selected screening level. Data are provided in Table 4.2.
- SVOCs – 1,4-Dioxane, Benzoic Acid, Benzyl Alcohol, and Bis(2-ethyl hexyl)phthalate were detected in the LTU wells. 1,4-Dioxane was detected above the selected screening level. Bis(2-chloro ethyl)ether, Hexachloro Benzene, Hexachlorocyclopentadiene, N-Nitroso-dimethylamine, N-Nitrosodi-n-propylamine, and Benzidine had detection limits above the selected screening level. Data are provided in Table 4-3.
- Total Metals – Aluminum, Arsenic, Barium, Boron, Chromium, Cobalt, Iron, Lead, Manganese, Molybdenum, Nickel, Silver, Uranium and Zinc were detected in the LTU wells. Cobalt and Uranium was detected above the selected screening level. Cobalt had detection limits above the selected screening level. Data are provided in Table 4-4.
- Dissolved Metals – Aluminum, Arsenic, Barium, Boron, Calcium, Chromium, Cobalt, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Silver, Sodium, Uranium, and Zinc were detected in the LTU wells. Cobalt was detected above the selected screening level. Cobalt and Thallium had detection limits above the selected screening level. Data are provided in Table 4-5.
- General Chemistry – Bromide, Chloride, Fluoride, Nitrate (as Nitrogen), Sulfate, DRO, and GRO detected in the LTU wells. Chloride, Sulfate, DRO, and GRO was detected above the selected screening level. Fluoride, Nitrite (as Nitrogen), DRO, GRO, and ORO had detection limits above the selected screening level. Data are provided in Table 4-6.

Analytical results for BTEX and MTBE are presented on Figure 4-6. BTEX and MTBE were not detected in the LTU Area monitoring wells with the exception of MTBE in SMW-2. MTBE did not exceed the screening level in SWM-2 during 2020. SWM-2 has historically had detections of MTBE less than the screening level.



4.7 Evaporation Ponds Analytical Results

The Refinery also monitors the Evaporation Ponds that are located in the northwestern area of the property (Figure 4-7). These samples are collected as surface samples at the Refinery. These surface samples are typically collected semiannually during the second and fourth quarters. However, due to the COVID-19 pandemic, these samples were collected during the third and fourth quarters of 2020. Evaporation Pond EP-11 was dry during the third quarter of 2020 and was not sampled (Table 4-1).

The 2020 detected analytical results for the Evaporation Pond surface samples that have exceeded the screening levels are noted in the Tables 4-2 through 4-6 as bolded results. Samples from the ponds were also analyzed in the laboratory for conductivity, TDS, soluble, salt, pH, resistivity, and temperature. However, field data for these constituents are considered to be more accurate (Table 4-7). Non-detected sampling results with reporting limits greater than the applicable screening levels are noted with italics in the applicable tables. A summary of the analytical data is provided below:

- VOCs – 1,2,4-Trimethylbenzene, 2-Butanone, Acetone, Carbon Disulfide, and Chloromethane were detected in the evaporation ponds. No constituents were detected above the selected screening level. 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1,-Dichloroethene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichloroethane, 1,2-Dichloropropane, 2-Hexanone, Bromodichloromethane, Bromomethane, Carbon Tetrachloride, Chloromethane, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromomethane, Hexachlorobutadiene, Methylene Chloride, Tetrachloroethene, Trans-1,3-Dichloropropene, Trichloroethene, and Vinyl Chloride had detection limits above the relevant standard. Data are presented in Table 4-2.
- SVOCs – 1,4-dioxane, 3,4-Methylphenol, Benzoic Acid, Bis(2-ethyl hexyl)phthalate, and Phenol were detected in the evaporation ponds. No constituents were detected above the relevant standard. 2,4,6-Trichlorophenol, 2,4-Dichlorophenol, 2,4-Dinitrophenol, 2,4-Dinitrotoluene, 2,6-Dinitrotoluene, -3'-Dichlorobenzidine, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Bis(2chloroethyl)ether, Bis(2chloroisopropyl)ether, Chrysene, Dibenz(a,h)anthracene, Hexachlorobenzene, Hexachlorocyclopentadiene, Hexachloroethane, Naphthalene, Nitrobenzene, N-Nitrosodimethylamine, N-Nitrosodi-n-propylamine, Pentachlorophenol, and Benzidine had detection limits above the relevant standards. Data are provided in Table 4-3.
- Total Metals – Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Chromium, Cobalt, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver, Uranium, and Zinc were detected in the evaporation ponds. Aluminum, Arsenic, Boron, Chromium, Cobalt, Iron, Lead, Manganese, Nickel, and Selenium were detected above the relevant standards. Antimony, Beryllium, Cadmium, Cobalt, Lead, Molybdenum, Selenium, Thallium, and Uranium had detection limits above the relevant standards. Data are provided in Table 4-4.
- Dissolved Metals – Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Calcium, Chromium, Cobalt, Copper, Iron, Magnesium, Manganese, Nickel, Potassium, Selenium, Silver,

Sodium, Uranium, and Zinc were detected in the evaporation ponds. Antimony, Arsenic, Boron, Chromium, Cobalt, Iron, Manganese, Nickel, and Selenium were detected above the relevant standards. Antimony, Beryllium, Cadmium, Chromium, Cobalt, Molybdenum, Nickel, Selenium, Silver, and Thallium had detection limits above the relevant standards. Data are provided in Table 4-5.

- General Chemistry – BOD, Bromide, COD, Chloride, Fluoride, Nitrate (as Nitrogen), Nitrate and Nitrite (as Nitrogen), Sulfate, DRO, C28-C40, TPH (C6-C10), TDS, Soluble Salt, E-Coli Coliform, and E-Coli were detected in the evaporation ponds. Chloride, Fluoride, Nitrate-Nitrogen, Nitrate and Nitrite Nitrogen, Sulfate, and DRO were detected above the relevant standards. Fluoride, Nitrite (as Nitrogen), GRO, and ORO had detection limits above the relevant standards. General field parameters were collected including Conductivity, pH, Resistivity, and Temperature. Data are provided in Table 4-6.

As shown on Figure 4-7, BTEX and MTBE were reported as not detected during the two semiannual monitoring events in 2020. This is generally consistent with historical results.

4.8 Western Boundary Wells Analytical Results

The Western Boundary monitoring wells are screened across the three aquifers at the Refinery to monitor the western boundary of the Refinery (Figure 4-8). These monitoring wells are sampled on either a quarterly or an annual basis. BW-1A, BW-1B, BW-3A, BW-4A, and BW-5A were dry during 2020 and were not sampled. BW-4B purged dry during the third quarter of 2020 and was not sampled during that event (Table 4-1).

The 2020 detected analytical results for the Western Boundary Area monitoring wells that have exceeded the screening levels are noted in the applicable tables as bolded results. Non-detected sampling results with reporting limits greater than the applicable screening levels are noted with italics in the applicable tables. Wells that were not sampled and the cause (e.g., SPH) are included in Tables 4-2 through 4-6. Field parameters are provided in Table 4-7. A summary of the analytical data is presented below:

- VOCs – 1,1-Dichloroethane, 1,2-Dichloroethane, Acetone, and MTBE were detected in Western Boundary wells. No constituents were above the relevant standards. 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, cis-1,3-Dichloropropene, Hexachlorobutadiene, and trans-1,3-Dichloropropene had detection limits above relevant standards. Data presented in Table 4-2.
- SVOCs – 1,4-Dixoane was detected in Western Boundary wells. 1,4-Dioxane was detected above the relevant standard. 2-6-Dinitro Toluene, Hexachloro Benzene, and Hexachlorocyclopentadiene had detection limits above relevant standards. Data are presented in Table 4-3.
- Total Metals – Aluminum, Arsenic, Barium, Beryllium, Boron, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium,

Selenium, Silver, Sodium, Thallium, Uranium, and Zinc were detected in Western Boundary wells. Aluminum, Cobalt, Iron, Lead, and Uranium were detected above the selected screening level. Cobalt and Molybdenum had detection limits above relevant standards. Data are presented in Table 4-4.

- Dissolved Metals – Aluminum, Arsenic, Barium, Beryllium, Boron, Calcium, Chromium, Cobalt, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Sodium, Uranium, and Zinc were detected in Western Boundary wells. Cobalt was detected above the selected screening level. Cobalt and Thallium had detection limits above the relevant standard. Data are presented in Table 4-5.
- General Chemistry – Bromide, Chloride, Fluoride, Nitrate and Nitrite, Nitrate (as Nitrogen), Ortho Phosphate, Sulfate, and GRO were detected in Western Boundary wells. Chloride, Fluoride, and GRO were detected above the selected screening level. DRO, GRO, and ORO had detection limits above the relevant standards. Data are presented in Table 4-6.

Analytical results for BTEX and MTBE are presented on Figure 4-8. BTEX has continued to be non-detect in the Western Boundary monitoring wells. MTBE was detected in BW-5B during 2020 but did not exceed the screening level. MTBE in BW-5C was detected above the screening level during 2020. These results are consistent with previous monitoring events.

4.9 Deep Monitoring Wells Analytical Results

The Deep monitoring wells are screened in the Sonsela aquifer (Figure 4-9). In addition to these deep wells, three production wells are also included in this group (PW-2, PW-3, and PW-4). These monitoring and production wells are sampled on an annual or quarterly basis with the exception of PW-2 which is monitored every 3 years. Analytical results for VOCs, SVOCs, total and dissolved metals, and general chemistry are presented in Tables 4-2 through 4-6, respectively. Field parameters collected during the monitoring activities are presented in Table 4-7 and can be found in the field logs in Appendix A.

The 2020 detected analytical results for the Deep monitoring wells that have exceeded the screening levels are noted in Tables 4-2 through 4-6 as bolded results. Non-detected sampling results with reporting limits greater than the applicable screening levels are noted with italics in the analytical tables. A summary of the analytical data is presented below:

- VOC – 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2-Dichloroethane, 1,4-Dixoane, Acetone, Benzene, Ethylbenzene, MTBE, Toluene, and Xylenes were detected in the Deep wells. Benzene was detected above the selected screening level. 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethene, cis-1,3-Dichloropropene, Hexachlorobutadiene, and Trans-1,3-dichloropropene had detection limits above relevant standards. Data are presented in Table 4-2.
- SVOC – 1,4-Dioxane and Bis(2-ethylhexyl) phthalate were detected in Deep wells. No constituents were detected above the selected screening level. 2,4-Dinitrotoluene, 2,6-Dinitrotoluene, 3-3'Dichlorobenzidine, Benzo(a)pyrene, Benzo(b)fluoranthene,



Benzo(k)fluoranthene, Bis(2-chloroethyl)ether, Bis(2-chloroisopropyl)ether, Dibenz(a,h)anthracene, Hexachlorobenzene, Hexachlorocyclopentadiene, Hexachloroethane, Nitro-benzene, N-Nitrosodimethylamine, N-Nitrosodi-n-propylamine, Pentachlorophenol, and Benzidine had detection limits above relevant standards. Data are presented in Table 4-3.

- Total Metals – Aluminum, Arsenic, Barium, Beryllium, Boron, Calcium, Chromium, Cobalt, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Uranium, and Zinc were detected in Deep wells. Molybdenum, and Uranium were detected above the selected screening level. Beryllium, Cadmium, Cobalt, and Thallium had detection limits above relevant standards. Data are presented in Table 4-4.
- Dissolved Metals – Aluminum, Arsenic, Barium, Boron, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Potassium, Selenium, Silver, Sodium, Uranium, and Zinc were detected in Deep Wells. Molybdenum was detected above the selected screening level. Cobalt, Molybdenum, and Thallium had detection limits above relevant standards. Data are presented in Table 4-5.
- General Chemistry – Bromide, Chloride, Fluoride, Nitrate (as Nitrogen), Nitrate and Nitrite (as Nitrogen), Nitrite (Nitrogen), Sulfate, GRO, and TPH (C6-C10) were detected in Deep wells. Chloride, Fluoride, Sulfate, and GRO was detected above the selected screening level. Nitrite-Nitrogen, DRO, GRO, and ORO had detection limits above relevant standards. Data are presented in Table 4-6.

Analytical results for BTEX and MTBE are presented on Figure 4-9. BTEX was reported as non-detect in the deep monitoring wells with the exception of OW-12. OW-12 has historically not had detections of BTEX; however, BTEX was detected during the third quarter of 2020. Benzene and ethylbenzene were detected above the screening level. OW-12 is located downgradient of the tank farm. The monitoring frequency will be changed from annual to semiannual in 2022. MTBE was detected in all of the deep monitoring wells with the exception of OW-11. The MTBE monitoring data are generally consistent with historical analytical results. Per the Response to Approval with Modifications, Revised Investigation Work Plan North Drainage Ditch Area (MPC 2021c), a new monitoring well adjacent to OW-12 will be installed in the Chinle/Alluvium aquifer interface which will allow for additional understanding of BTEX concentrations in this area. This new well will be monitored and reported on in the 2021 Annual Monitoring Report.

Production well PW-2 was sampled in both the third and fourth quarters of 2020. The analytical data for the fourth quarter of 2020 for PW-2 was rejected based on data qualifiers as described in Section 4.10. However, the fourth quarter 2020 monitoring event was not required per the 2020 Work Plan (MPC 2021a). The September 2020 analytical data for PW-2 was reported as not detected and is consistent with historical monitoring events.

Released to Imaging: 11/23/2022 10:12:17 AM

4.10 QA/QC Analytical Results

Quality assurance/quality control (QA/QC) groundwater samples were collected during the groundwater monitoring and sampling events and were submitted for laboratory analyses. The analytical data reported from the receiving laboratory underwent Tier I and Tier II data validation by Trihydro's chemical data validation services group. Data qualified are presented in their respective tables, as listed in previous sections, where relevant. The Tier II data validation reports are provided in Appendix D. A summary of qualifiers and QA/QC sample results are discussed in the sections below.

The following qualifiers were applied to the analytical data collected during 2020:

- J – estimated concentration
- J+ – estimated concentration, biased high
- J- – estimated concentration, biased low
- UJ – estimated reporting limit
- U – evaluated to be undetected at the reporting limit
- JB – estimated concentration due to blank contamination
- R – rejected, data not usable

4.10.1 Rejected Data

Out of the 2020 data packages, 99.5% of the data received from the laboratory were acceptable with approximately 0.5% of the data rejected during the 2020 monitoring events. The VOC data from PW-2 were rejected because VOCs were analyzed outside of the method holding time (7 days). The VOC analytes were not detected in sample PW-2 and, therefore, the results were qualified as R to indicated rejected data. These data were qualified based on holding time exceedances, laboratory control sample/laboratory control sample duplicate percent recoveries, matrix spike/matrix spike duplicate recoveries or surrogate recoveries. Rejected data are presented in their respective tables and explanations of the qualifiers can be found in Appendix D.

4.10.2 Field Blanks

Twenty-two field blank samples were collected during 2020. The field blanks are collected by adding distilled water to sample bottles in the field where samples are to be collected from wells that day. Acetone, 2-butanone, and toluene were detected in field blanks collected during the first and third quarters. These constituents are common laboratory contaminants.

4.10.3 Trip Blanks

Eighteen trip blank samples were collected during 2020. Trip blanks are provided by the laboratory and are kept with the sample coolers during shipment to and from the laboratory. Benzene was detected during the first quarter sampling event on March 2, 2020. Acetone was detected in several trip blank samples during the third quarter 2020 sampling event. Chloromethane and bromomethane were



detected in the trip blank on September 16, 2020. Target analytes detected in the associated samples at concentrations less than the reporting limit were qualified as U. Detections that were greater than the blank detection but less than 10 times the blank concentration were qualified as JB. Non-detections of the target analytes in the associated samples and results greater than 10 times the blank detection did not require qualification.

4.10.4 Equipment Blanks

Fifteen equipment blank samples were collected during 2020. Equipment blanks are collected by cleaning reusable equipment and then collecting a sample from the equipment using distilled water. Thirty-five analytes were detected in the equipment blanks. Target analytes detected in the associated samples at concentrations less than the reporting limit were qualified as U. Detections that were greater than the blank detection but less than 10 times the blank concentration were qualified as JB. Non-detections of the target analytes in the associated samples and results greater than 10 times the blank detection did not require qualification.

4.10.5 Field Duplicates

Duplicate samples were collected during all sample events of 2020. Twenty-seven duplicate samples were collected during the sampling events. The analytical results for the duplicate samples are included with their parent samples in previous tables. Relative percent difference (RPD) values were calculated and compared to the data validation quality control limit of 30 percent (%). RPD values greater than 30 % were qualified as J due to evidence of poor precision. RPD values that exceeded 100 % were assigned J qualifiers if detected in the associated samples and UJ qualifiers if not detected due to evidence of moderately poor precision.

Released to Imaging: 11/23/2022 10:12:17 AM

5.0 Remediation Activities

Fluid recovery at the Refinery is reported quarterly in the Hydrocarbon Interim Measures Status Reports. Remediation activities include vacuum truck recovery in the standpipe sumps and retention ditch. Recovery took place during the second, third, and fourth quarter of 2020. Recovery activities were restricted during the first quarter of 2020 while turnaround took place. In addition, the Refinery was operating on a skeleton crew through the majority of 2020 due to the COVID-19 pandemic, which delayed other investigations and remedial activities.

Recovery data for 2020 is presented in Table 5-1. These activities will continue to be reported to NMED on a quarterly basis in the Hydrocarbon Interim Measures Status Reports. In addition to recovery activities in the standpipe sumps and retention ditch, SPH in monitoring wells at the refinery, will be evacuated and reported in the Interim Measures Status Reports.

Released to Imaging: 11/23/2022 10:12:17 AM

6.0 Conclusions

Sampling took place during the first, third, and fourth quarters of 2020. Based on the 2020 groundwater gauging and sampling results, the following conclusions were made:

- The 2020 depth to groundwater in monitoring wells screened in the Alluvial/Fluvial upper sand aquifer ranged from a high of 20.33 ft bgs (BW-5A in June 2020) to a low of 35.42 ft-bgs (BW-4A in March 2020). Based on the measured water level column in BW-4A and BW-5A (less than 0.5 ft), water detected in these wells may be due to previous accumulation in the well sump rather than representative of the groundwater potentiometric surface (Table 3-1).
- The 2020 depth to groundwater in monitoring wells screened in the Chinle/Alluvium aquifer ranged from a high of 1.07 ft-bgs (MKTF-27 in February 2020) to a low of 41.96 ft-bgs (BW-4B in June 2020).
- The 2020 depth to groundwater in monitoring wells screened in the Sonsela aquifer ranged from a high of 0.21 ft above ground surface inside the well casing (BW-5C in March 2020) to a low of 45.37 ft-bgs (OW-12 in November 2020). BW-5C is on the northwest end of the property and is considered artesian.
- Measurable SPH was detected during all four quarters in 2020: 23 monitoring wells during first quarter, 29 monitoring wells during second quarter, 37 monitoring wells during third quarter (i.e., the annual event), and 36 monitoring wells during fourth quarter. The measured SPH thickness ranged from 0.01 ft in multiple locations to 6.41 ft (MKTF-33) across the site during the 2020 annual event. SPH thicknesses measured in 2020 are presented on Table 3-1.
- In the Eastern Boundary wells, BTEX were not detected in the analytical data during 2020 with the exception of OW-56. OW-56 has historically had low level concentrations of benzene (less than 2.5 µg/L), however, during 2020 the benzene concentrations were detected at 547 µg/L during the fourth quarter of 2020. OW-56 will continue to be monitored quarterly and reported. MTBE was detected in all of the Eastern Boundary monitoring wells that were sampled during 2020. MTBE detections and screening level exceedances are generally consistent with historical monitoring data, with the exception of OW-56. OW-56 MTBE concentrations increased from 11 ug/L (October 2019) to 70.8 ug/L (December 2020).
- BTEX and MTBE in the Tank Farm monitoring wells were detected. Benzene and ethylbenzene exceeded the screening level during all monitoring events during 2020 in the Tank Farm monitoring wells, which is consistent with historical monitoring. Toluene was detected during the 2020 monitoring events below the screening level which is consistent with historical monitoring results. MTBE was detected and exceeded the screening level in OW-58 and OW-58A during 2020. OW-57 and OW-63 exceeded the screening level for MTBE in two of the three quarters of 2020.
- In the Marketing Tank Farm (MKTF) Area, benzene was consistently detected above the screening level in monitoring wells within areas near the presence of SPH (Figure 3-4). Detections of ethylbenzene, toluene, and total xylenes were generally present in monitoring



wells with elevated benzene detections with the exception of MKTF-38 during the first quarter of 2020. MTBE was detected above the screening level in the southeast and southwest portion of the MKTF area and in the northeast area. These detections for benzene and MTBE are generally consistent with historical results; however, there are several instances where SPH is intermittently observed in the wells. In addition, monitoring wells that have SPH will be evacuated using a vacuum truck on a monthly basis.

- BTEX and MTBE have historically been detected in the WWT area monitoring wells. Monitoring wells that were sampled during 2020 continued to have elevated detections of benzene, ethylbenzene, and MTBE that are above the screening levels. The upgradient well NAPIS-1 has consistently had SPH and could not be sampled in 2020. In addition, it should be noted that benzene concentrations further upgradient in MKTF-49 and MKTF-50 are one to two orders of magnitude higher than concentrations observed in NAPIS-2 which had the highest benzene detects in the WWT area wells. Toluene and total xylenes were detected during 2020 but did not exceed the screening levels, similar to historical results.
- BTEX and MTBE were not detected in the SWMU 1 monitoring wells during 2020. These monitoring wells historically have not had detections or exceedances of BTEX.
- BTEX and MTBE were not detected in the LTU Area monitoring wells with the exception of MTBE in SMW-2. MTBE did not exceed the screening level in SWM-2 during 2020. SWM-2 has historically had detections of MTBE less than the screening level.
- In the Evaporation Ponds and outfall locations, BTEX and MTBE were reported as not detected during the two semiannual monitoring events in 2020. This is generally consistent with historical results.
- BTEX has continued to be non-detect in the Western Boundary monitoring wells. MTBE was detected in BW-5B during 2020 but did not exceed the screening level. MTBE in BW-5C was detected above the screening level during 2020. These results are consistent with previous monitoring events.
- BTEX was reported as non-detect in the deep monitoring wells with the exception of OW-12. OW-12 has historically not had detections of BTEX however, BTEX was detected during the third quarter of 2020. Benzene and ethylbenzene were detected above the screening level. OW-12 is located downgradient of the tank farm. The monitoring frequency will be changed from annual to semiannual in 2022. MTBE was detected in all of the deep monitoring wells with the exception of OW-11. The MTBE monitoring data are generally consistent with historical analytical results. Per the Response to Approval with Modifications, Revised Investigation Work Plan North Drainage Ditch Area (MPC 2021c), a new monitoring well adjacent to OW-12 will be installed in the Chinle/Alluvium aquifer interface which will allow for additional understanding of BETX concentrations in this area. This new well will be monitored and reported on in the 2021 Annual Monitoring Report.

- Recovery activities will continue to take place and will be summarized in the Hydrocarbon Interim Measures Seep Reports, submitted quarterly to NMED.

Gauging and sampling requirements will continue in accordance with the most current NMED-approved Facility-Wide Groundwater Monitoring Work Plan. The 2021 Annual Groundwater Monitoring Report will be submitted no later than September 1, 2022. Site assessments will take place as required and NMED will be notified of remediation activities.

7.0 References

Marathon Petroleum Company (MPC). 2021a. Approval with Modifications, Disapproval Facility Wide Ground Water Monitoring Work Plan – Updates for 2020, Western Refining Southwest LLC, Gallup Refinery, EPA ID #NMD000333211, HWB-WRG-20-012. March 25.

Marathon Petroleum Company (MPC). 2021b. Marathon Petroleum Company, Gallup Refining Division, Marketing Tank Farm Laser-Induced Fluorescence/Hydraulic Profiling Investigation Report. March 31.

MPC. 2021c. Response to Approval with Modifications, Revised Investigation Work Plan North Drainage Ditch Area, Marathon Petroleum Company LP, Gallup Refinery, March 31.

MPC. 2021d. Tank 570 Release and Additional Areas LIF/HP Investigation Report, Western Refining Southwest LLC, D/B/A Marathon Gallup Refinery, EPA ID# NMD000333211. November 1.

Stone, W.J., Lyford F.P., Frenzel, P.F., Mizel, N.H., and Padgett, E.T. 1983. Hydrogeology and Water Resources of San Juan Basin, New Mexico, Hydrogeologic Report 6, New Mexico Bureau of Mines and Mineral Resources, p. 70.



Tables

TABLE 2-1. GROUNDWATER MONITORING PROGRAM
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Sampling Location	Sampling Frequency[1]	Fluid Level Measurements[2]	Water Quality Parameters	Analyses
NAPIS Secondary Containment (3 units)	Quarterly	NA	NA	BTEX, MTBE, GRO/DRO extended, WQCC Metals
NAPI Inlet	Quarterly	NA	NA	BTEX, MTBE, GRO/DRO extended, WQCC Metals
RW-1	Quarterly	X	NA	BTEX, MTBE, GRO/DRO extended, nitrite, nitrate
RW-2	Quarterly	X	NA	BTEX, MTBE, GRO/DRO extended, nitrite, nitrate, 1,4-dioxane for two consecutive events
RW-5	Quarterly	X	NA	BTEX, MTBE, GRO/DRO extended, nitrite, nitrate
RW-6	Quarterly	X	NA	BTEX, MTBE, GRO/DRO extended, nitrite, nitrate
OW-1	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, WQCC Metals, VOCs (Methods 8260 & 8011 for 1,2-dibromethane), GRO/DRO extended, 1,4-dioxane for two consecutive events
OW-10	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, WQCC Metals, VOCs (Methods 8260 & 8011 for 1,2-dibromethane), GRO/DRO extended, 1,4-dioxane for two consecutive events
OW-13	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, WQCC Metals, GRO/DRO extended, 1,4-dioxane by 8270/8270 SIMS for two consecutive events, nitrite, nitrate
OW-14	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, WQCC Metals, GRO/DRO extended, 1,4-dioxane by 8270/8270 SIMS for two consecutive events, nitrite, nitrate
OW-29	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, WQCC Metals, GRO/DRO extended, 1,4-dioxane by 8270/8270 SIMS for two consecutive events, nitrite, nitrate
OW-30	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, WQCC Metals, GRO/DRO extended, 1,4-dioxane by 8270/8270 SIMS for two consecutive events, nitrite, nitrate
OW-53	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, WQCC Metals, GRO/DRO extended, nitrite, nitrate
OW-54	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, WQCC Metals, GRO/DRO extended, 1,4-dioxane for two consecutive events, nitrite, nitrate
OW-55	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, WQCC Metals, GRO/DRO extended, 1,4-dioxane for two consecutive events, nitrite, nitrate
OW-56	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, WQCC Metals, GRO/DRO extended, 1,4-dioxane for two consecutive events, nitrite, nitrate
OW-57	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, WQCC Metals, GRO/DRO extended, nitrite, nitrate
OW-58	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, WQCC Metals, GRO/DRO extended, nitrite, nitrate
OW-58A	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, WQCC Metals, GRO/DRO extended, nitrite, nitrate
OW-59	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCs, SVOCs, GRO/DRO extended, WQCC Metals
OW-60	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCs, SVOCs, GRO/DRO extended, WQCC Metals
OW-61	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions
OW-62	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions
OW-63	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions
OW-64	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions
OW-65	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions
GWM-1	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCs, GRO/DRO extended, WQCC Metals, 1,4-dioxane for two consecutive events
GWM-2[3]	Quarterly	X	NA	GRO/DRO extended, Major Cations/Anions, VOCs
GWM-3[3]	Quarterly	X	NA	GRO/DRO extended, Major Cations/Anions, VOCs
NAPIS-1[4]	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, BTEX, MTBE, SVOCs, GRO/DRO extended, WQCC Metals
NAPIS-2[4]	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, BTEX, MTBE, SVOCs, GRO/DRO extended, WQCC Metals, 1,4-dioxane for two consecutive events
NAPIS-3[4]	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, BTEX, MTBE, SVOCs, GRO/DRO extended, WQCC Metals, 1,4-dioxane for two consecutive events
KA-3[4]	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, BTEX, MTBE, SVOCs, GRO/DRO extended, WQCC Metals, 1,4-dioxane for two consecutive events
OAPIS-1	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, GRO/DRO extended, WQCC Metals, Major Cations/Anions, Cyanide, and 1,4-dioxane for two consecutive events
STP1-NW	Quarterly	X	NA	Major Cations/Anions, VOCs, SVOCs, GRO/DRO extended, WQCC Metals
STP1-SW	Quarterly	X	NA	Major Cations/Anions, VOCs, SVOCs, GRO/DRO extended, WQCC Metals
STP-1 TO EP-2 (EP-2 Inlet)	Quarterly	NA	NA	VOCs, GRO/DRO extended, BOD, COD, TDS, WQCC Metals, TSS
Evaporation Pond 2[5]	Semiannual	NA	pH, EC, DO, ORP, Temp, TDS	General Chemistry, VOCs, SVOCs, BOD, COD, E-Coli Bacteria, WQCC Metals
Evaporation Pond 3[5]	Semiannual	NA	pH, EC, DO, ORP, Temp, TDS	General Chemistry, VOCs, SVOCs, BOD, COD, E-Coli Bacteria, WQCC Metals
Evaporation Pond 4[5]	Semiannual	NA	pH, EC, DO, ORP, Temp, TDS	General Chemistry, VOCs, SVOCs, BOD, COD, E-Coli Bacteria, WQCC Metals
Evaporation Pond 5[5]	Semiannual	NA	pH, EC, DO, ORP, Temp, TDS	General Chemistry, VOCs, SVOCs, BOD, COD, E-Coli Bacteria, WQCC Metals
Evaporation Pond 6[5]	Semiannual	NA	pH, EC, DO, ORP, Temp, TDS	General Chemistry, VOCs, SVOCs, BOD, COD, E-Coli Bacteria, WQCC Metals
Evaporation Pond 7[5]	Semiannual	NA	pH, EC, DO, ORP, Temp, TDS	General Chemistry, VOCs, SVOCs, BOD, COD, E-Coli Bacteria, WQCC Metals
Evaporation Pond 8[5]	Semiannual	NA	pH, EC, DO, ORP, Temp, TDS	General Chemistry, VOCs, SVOCs, BOD, COD, E-Coli Bacteria, WQCC Metals
Evaporation Pond 9[5]	Semiannual	NA	pH, EC, DO, ORP, Temp, TDS	General Chemistry, VOCs, SVOCs, BOD, COD, E-Coli Bacteria, WQCC Metals
Evaporation Pond 11[5]	Semiannual	NA	pH, EC, DO, ORP, Temp, TDS	General Chemistry, VOCs, SVOCs, BOD, COD, E-Coli Bacteria, WQCC Metals
Evaporation Pond 12A[5]	Semiannual	NA	pH, EC, DO, ORP, Temp, TDS	General Chemistry, VOCs, SVOCs, BOD, COD, E-Coli Bacteria, WQCC Metals
Evaporation Pond 12B[5]	Semiannual	NA	pH, EC, DO, ORP, Temp, TDS	General Chemistry, VOCs, SVOCs, BOD, COD, E-Coli Bacteria, WQCC Metals
Any temporary Pond containing fluid	Semiannual	NA	pH, EC, DO, ORP, Temp, TDS	General Chemistry, VOCs, SVOCs, BOD, COD, E-Coli Bacteria, WQCC Metals
BW-1A	Annual	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCs, WQCC Metals, GRO/DRO extended
BW-1B	Annual	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCs, WQCC Metals, GRO/DRO extended
BW-1C	Annual	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCs, WQCC Metals, GRO/DRO extended
BW-2A	Annual	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCs, WQCC Metals, GRO/DRO extended
BW-2B	Annual	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCs, WQCC Metals, GRO/DRO extended
BW-2C	Annual	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCs, WQCC Metals, GRO/DRO extended
BW-3A	Annual	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCs, WQCC Metals, GRO/DRO extended
BW-3B	Annual	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCs, WQCC Metals, GRO/DRO extended
BW-3C	Annual	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCs, WQCC Metals, GRO/DRO extended
BW-4A	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCs, WQCC Metals, GRO/DRO extended
BW-4B	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCs, WQCC Metals, GRO/DRO extended
BW-5A	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCs, WQCC Metals, GRO/DRO extended
BW-5B	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCs, WQCC Metals, GRO/DRO extended, and 1,4-dioxane for two consecutive events
BW-5C	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCs, WQCC Metals, GRO/DRO extended, and 1,4-dioxane for two consecutive events
MW-1	Annual and every 10 years beginning in 2009 per RCRA Post Closure Permit	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCs, GRO/DRO extended, WQCC Metals, Cyanide, SVOCs, and 1,4-dioxane for two consecutive events
MW-2	Annual and every 10 years beginning in 2009 per RCRA Post Closure Permit	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCs, GRO/DRO extended, WQCC Metals, Cyanide, SVOCs
MW-4	Annual and every 10 years beginning in 2009 per RCRA Post Closure Permit	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCs, GRO/DRO extended, WQCC Metals, Cyanide, SVOCs
MW-5	Annual and every 10 years beginning in 2009 per RCRA Post Closure Permit	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCs, GRO/DRO extended, WQCC Metals, Cyanide, SVOCs
OW-11	Annual	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCs, WQCC Metals, GRO/DRO extended
OW-12	Annual	X	pH, EC, DO, ORP, Temp, TDS	VOCs, WQCC Metals, GRO/DRO extended, nitrite, nitrate
OW-50	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, GRO/DRO extended, WQCC Metals, general Chemistry, nitrite, nitrate
OW-52	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, GRO/DRO extended, WQCC Metals, general Chemistry, nitrite, nitrate
SMW-2	Annual	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCs, GRO/DRO extended, WQCC Metals, Cyanide, SVOCs

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 2-1. GROUNDWATER MONITORING PROGRAM
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Sampling Location	Sampling Frequency[1]	Fluid Level Measurements[2]	Water Quality Parameters	Analyses
SMW-4	Annual and every 10 years beginning in 2009 per RCRA Post Closure Permit	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCs, SVOCs, GRO/DRO extended, WQCC Metals, Cyanide, 1,4-dioxane for two consecutive events
PW-3	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, Cyanide, Nitrate, Nitrite
PW-2	Every 3 years, Starting in 2008	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, Cyanide, Nitrate, Nitrite, 1,4-dioxane for two consecutive events
PW-4	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, Cyanide, Nitrate, Nitrite
MKTF-01	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-02	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-03	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-04	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-05	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-06	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-07	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-08	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-09	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-10	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-11	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-12	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-13	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-14	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-15	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-16	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-17	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-18	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-19	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-20	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-21	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-22	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-23	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-24	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-25	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-26	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-27	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-28	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-29	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-30	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-31	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-32	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-33	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-34	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-35	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-36	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-37	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-38	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-39	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-40	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-41	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-42	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-43	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 2-1. GROUNDWATER MONITORING PROGRAM
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Sampling Location	Sampling Frequency[1]	Fluid Level Measurements[2]	Water Quality Parameters	Analyses
MKTF-44	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-45	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-46	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-47	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-48	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-49	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events
MKTF-50	Quarterly	X	pH, EC, DO, ORP, Temp, TDS	VOCs, SVOCs, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane for two consecutive events

Notes:
[1]Sampling completed if no SPH detected in monitoring well or if sufficient water is available
[2]Fluid Level Measurements include depth to water, depth to product, and depth to bottom
[3]If water is detected report to OCD and NMED within 24 hours
[4]Detection of product during quarterly monitoring must comply with Section II.F.2 (24-hour reporting) of the RCRA Post-Closure Care Permit (NMED 20170)
[5]Sample using the State of New Mexico approved analytical methods as required in New Mexico Administrative Code 20.6.4.14.

BOD - Biological Oxygen Demand
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes
COD - Carbon Oxygen Demand
DO - Dissolved Oxygen
DRO - Diesel Range Organics
EC - Electrical Conductivity
EP - Evaporation Pond
GRO - Gasoline Range Organics
NA - Not Applicable
NMED - New Mexico Environment Department
OCD - Oil Conservation Division
ORP - Oxygen Reduction Potential
RCRA - Resource Conservation and Recovery Act
SPH - Separate Phase Hydrocarbon
SVOC - Semi Volatile Organic Compounds
TDS - Total Dissolved Solids
Temp - Temperature
VOC - Volatile Organic Compounds
WQCC - Water Quality Control Commission

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 2-2. SELECTED SCREENING LEVELS
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

ANALYTE	[a]NMED GW Cleanup Levels (µg/L)	[b]40 CFR 141.62 (µg/L)	[c]NMED Tap Water (µg/L)	[d]USEPA RSL Tap Water HQ 1.0 (µg/L)	Selected Screening Level (µg/L)
Volatile Organic Compounds					
1,1,1,2-Tetrachloroethane	NA	NA	**5.74**	0.57	**5.74**
1,1,1-Trichloroethane	**200**	NA	8,003	8,000	**200**
1,1,2,2-Tetrachloroethane	**10**	NA	0.757	0.076	**10**
1,1,2-Trichloroethane	**5**	NA	2.75	0.28	**5**
1,1-Dichloroethane	**25**	NA	27.5	2.8	**25**
1,1-Dichloroethene	**7**	NA	284	280	**7**
1,1-Dichloropropene	**NA**	NA	NA	NA	**NA**
1,2,3-Trichlorobenzene	NA	NA	NA	**7**	**7**
1,2,3-Trichloropropane	NA	NA	**0.0084**	0.00075	**0.0084**
1,2,4-Trichloro-benzene	**70**	NA	11.548	1.2	**70**
1,2,4-Trimethyl-benzene	NA	NA	NA	**56**	**56**
1,2-Dibromo 3-chloropropane	NA	NA	**0.0033**	0.00033	**0.0033**
1,2-Dibromo-ethane	**0.05**	NA	0.0747	0.0075	**0.05**
1,2-Dichloro-benzene	**600**	NA	302	300	**600**
1,2-Dichloro-ethane	**5**	NA	1.71	0.17	**5**
1,2-Dichloro-propane	**5**	NA	4.38	0.85	**5**
1,3,5-Trimethyl-benzene	NA	NA	NA	**60**	**60**
1,3-Dichloro-benzene	**NA**	NA	NA	NA	**NA**
1,3-Dichloro-propane	NA	NA	NA	**370**	**370**
1,4-Dichloro-benzene	**75**	NA	4.82	0.48	**75**
1,4-Dioxane	NA	NA	**4.59**	0.46	**4.59**
2,2-Dichloro-propane	**NA**	NA	NA	NA	**NA**
2-Butanone	NA	NA	**5,565**	5,600	**5,565**
2-Chlorotoluene	NA	NA	NA	**240**	**240**
2-Hexanone	NA	NA	NA	**38**	**38**
4-Chlorotoluene	NA	NA	NA	**250**	**250**
4-Methyl-2-Pentanone	NA	NA	NA	**6,300**	**6,300**
Acetone	NA	NA	**14,064**	14,000	**14,064**
Benzene	**5**	NA	4.55	0.46	**5**
Bromobenzene	NA	NA	NA	**62**	**62**
Bromodichloro-methane	NA	NA	**1.34**	0.13	**1.34**
Bromoform	NA	NA	**32.9**	3.3	**32.9**
Bromomethane	NA	NA	**7.54**	7.5	**7.54**
Carbon Disulfide	NA	NA	**810**	810	**810**
Carbon tetrachloride	**5**	NA	4.55	0.46	**5**
Chlorobenzene	NA	NA	**77.6**	78	**77.6**
Chloroethane	NA	NA	NA	**21,000**	**21,000**
Chloroform	**100**	NA	2.29	0.22	**100**
Chloromethane	NA	NA	**20.32**	190	**20.32**
cis-1,2-Dichloro-ethene	**70**	NA	36.5	36	**70**
Cis-1,3-dichloro-propene	NA	NA	**4.71**	NA	**4.71**
Dibromo-chloromethane	NA	NA	**1.68**	0.87	**1.68**
Dibromomethane	NA	NA	**8**	8.3	**8**
Dichlorodifluoro-methane	NA	NA	**197**	200	**197**
Ethylbenzene	**700**	NA	14.99	1.5	**700**
Hexachloro- butadiene	NA	NA	**1.39**	0.14	**1.39**
Isopropyl- benzene	NA	NA	**447**	450	**447**
Methylene Chloride	**5**	NA	106.5 *	11	**5**
MTBE	NA	NA	**143**	14	**143**
n-Butyl-benzene	NA	NA	NA	**1,000**	**1,000**
n-Propyl-benzene	NA	NA	NA	**660**	**660**
p-Isopropyl-toluene	**NA**	NA	NA	NA	**NA**
sec-Butylbenzene	NA	NA	NA	**2,000**	**2,000**
Styrene	**100**	NA	1,205	1,200	**100**
tert-Butyl- benzene	NA	NA	NA	**690**	**690**
Tetrachloro-ethene	**5**	NA	112.9	11	**5**
Toluene	**1,000**	NA	1,093	1,100	**1,000**
trans-1,2-Dichloroethene	**100**	NA	67.9	360	**100**
trans-1,3- Dichloropropene	NA	NA	**4.71**	NA	**4.71**
Trichloroethene	**5**	NA	2.59	0.49	**5**
Trichlorofluoromethane	NA	NA	**1,137**	5,200	**1,137**
Vinyl Chloride	**2**	NA	0.324	0.019	**2**
Xylenes, Total	**620**	NA	193	190	**620**

TABLE 2-2. SELECTED SCREENING LEVELS
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

ANALYTE	[a]NMED GW Cleanup Levels (µg/L)	[b]40 CFR 141.62 (µg/L)	[c]NMED Tap Water (µg/L)	[d]USEPA RSL Tap Water HQ 1.0 (µg/L)	Selected Screening Level (µg/L)
Semi-volatile Organic Compounds					
1,2,4-Trichloro-benzene	**70**	NA	3.98 *	70	**70**
1,2-Dichloro- benzene	**600**	NA	302	600	**600**
1,3-Dichloro- benzene	**NA**	NA	NA	NA	**NA**
1,4-Dichloro- benzene	**75**	NA	4.82	75	**75**
1,4-Dioxane	NA	NA	**4.59**	NA	**4.59**
1-Methyl- naphthalene	NA	NA	**11.38**	NA	**11.38**
2,4,5-Trichloro- phenol	NA	NA	**1,166**	NA	**1,166**
2,4,6-Trichloro- phenol	NA	NA	**11.9 ***	NA	**11.9 ***
2,4-Dichloro- phenol	NA	NA	**45.3**	NA	**45.3**
2,4-Dimethyl- phenol	NA	NA	**354**	NA	**354**
2,4-Dinitro- phenol	NA	NA	**38.7**	NA	**38.7**
2,4-Dinitro Toluene	NA	NA	**2.38**	NA	**2.38**
2,6-Dinitro Toluene	NA	NA	**0.485**	NA	**0.485**
2-Chloro- naphthalene	NA	NA	**733**	NA	**733**
2-Chlorophenol	NA	NA	**91**	NA	**91**
2-Methyl- naphthalene	NA	NA	**35.1**	NA	**35.1**
2-Methyl phenol	**NA**	NA	NA	NA	**NA**
2-Nitroaniline	**NA**	NA	NA	NA	**NA**
2-Nitrophenol	**NA**	NA	NA	NA	**NA**
3,3'-Dichloro-benzidine	NA	NA	**1.25**	NA	**1.25**
3,4-Methyl phenol	**NA**	NA	NA	NA	**NA**
3-Nitroaniline	**NA**	NA	NA	NA	**NA**
2-Methyl-4,6-dinitro phenol	**NA**	NA	NA	NA	**NA**
4-Bromophenyl-phenylether	**NA**	NA	NA	NA	**NA**
4-Chloro-3-Methyl phenol	**NA**	NA	NA	NA	**NA**
4-Chloroaniline	**NA**	NA	NA	NA	**NA**
4-Chlorophenyl- phenylether	**NA**	NA	NA	NA	**NA**
4-Nitroaniline	**NA**	NA	NA	NA	**NA**
4-Nitrophenol	**NA**	NA	NA	NA	**NA**
Acenaphthene	NA	NA	**535**	NA	**535**
Acenaphthylene	**NA**	NA	NA	NA	**NA**
Aniline	**NA**	NA	NA	NA	**NA**
Anthracene	NA	NA	**1,721**	NA	**1,721**
Azobenzene	**NA**	NA	NA	NA	**NA**
Benzo(a)-anthracene	**NA**	NA	NA	NA	**NA**
Benzo(a)pyrene	**0.2**	NA	0.251	0.2	**0.2**
Benzo(b)-fluor-anthene	NA	NA	**0.34**	NA	**0.34**
Benzo(ghi)-perylene	**NA**	NA	NA	NA	**NA**
Benzo(k)fluor-anthene	NA	NA	**3.43**	NA	**3.43**
Benzoic Acid	**NA**	NA	NA	NA	**NA**
Benzyl Alcohol	**NA**	NA	NA	NA	**NA**
Bis(2chloro ethoxy)methane	**NA**	NA	NA	NA	**NA**
Bis(2-chloro ethyl)ether	NA	NA	**0.137**	NA	**0.137**
Bis(2chloro isopropyl)ether	NA	NA	**9.81**	NA	**9.81**
Bis(2-ethyl hexyl)phthalate	NA	NA	**55.64**	6	**55.64**
Benzyl Butyl Phthalate	**NA**	NA	NA	NA	**NA**
Carbazole	**NA**	NA	NA	NA	**NA**
Chrysene	NA	NA	**34.3**	NA	**34.3**
Dibenz(a,h) anthracene	NA	NA	**0.034**	NA	**0.034**

TABLE 2-2. SELECTED SCREENING LEVELS
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

ANALYTE	[a]NMED GW Cleanup Levels (µg/L)	[b]40 CFR 141.62 (µg/L)	[c]NMED Tap Water (µg/L)	[d]USEPA RSL Tap Water HQ 1.0 (µg/L)	Selected Screening Level (µg/L)
Dibenzofuran	**NA**	NA	NA	NA	**NA**
Diethylphthalate	NA	NA	**14,801**	NA	**14,801**
Dimethyl Phthalate	NA	NA	**612**	NA	**612**
Di-n-butyl- phthalate	NA	NA	**885**	NA	**885**
Di-n-octyl-phthalate	**NA**	NA	NA	NA	**NA**
Fluoranthene	NA	NA	**802**	NA	**802**
Fluorene	NA	NA	**288**	NA	**288**
Hexachloro Benzene	NA	NA	**0.0976**	1	**0.0976**
Hexachloro- butadiene	**NA**	NA	NA	NA	**NA**
Hexachloro- cyclopentadiene	NA	NA	**0.41**	50	**0.41**
Hexachloro- ethane	NA	NA	**3.28**	NA	**3.28**
Indeno-(1,2,3-cd) pyrene	NA	NA	**0.343**	NA	**0.343**
Isophorone	NA	NA	**781**	NA	**781**
Naphthalene	**30**	NA	1.17	NA	**30**
Nitro-benzene	NA	NA	**1.4**	NA	**1.4**
N-Nitroso-dimethylamine	NA	NA	**0.0049**	NA	**0.0049**
N-Nitrosodi-n-propylamine	NA	NA	**0.027**	NA	**0.027**
N-Nitroso-diphenyl-amine	NA	NA	**122**	NA	**122**
Pentachloro- phenol	**1**	NA	0.413	1	**1**
Phenanthrene	NA	NA	**170**	NA	**170**
Phenol	NA	NA	**5,761**	NA	**5,761**
Pyrene	NA	NA	**117**	NA	**117**
Pyridine	**NA**	NA	NA	NA	**NA**
Benzidine	NA	NA	**0.0011**	NA	**0.0011**
2,3,4,6-Tetrachlorophenol	**NA**	NA	NA	NA	**NA**
2,3,5,6-Tetrachlorophenol	**NA**	NA	NA	NA	**NA**
Dibenz-(a,h)-acridine	**NA**	NA	NA	NA	**NA**
7,12-Dimethyl benz(a)anthracene	**NA**	NA	NA	NA	**NA**
1,2-Diphenyl hydrazine	NA	NA	**0.780**	NA	**0.780**
Quinoline	**NA**	NA	NA	NA	**NA**
Thiophenol (Benzene thiol)	**NA**	NA	NA	NA	**NA**
Aldrin	NA	NA	**0.002**	NA	**0.002**
alpha-BHC	NA	NA	**0.069**	NA	**0.069**
beta-BHC	NA	NA	**0.243**	NA	**0.243**
delta-BHC	**NA**	NA	NA	NA	**NA**
Lindane	NA	NA	**0.415**	0.2	**0.415**
Chlordane	NA	NA	**0.448**	NA	**0.448**
4,4'-DDD	NA	NA	**0.317**	NA	**0.317**
4,4'-DDE	NA	NA	**0.462**	NA	**0.462**
2,4-DDE	NA	NA	**0.462**	NA	**0.462**
4,4'-DDT	NA	NA	**2.29**	NA	**2.29**
Dieldrin	NA	NA	**0.018**	NA	**0.018**
Endosulfan I	NA	NA	**98.7**	NA	**98.7**
Endosulfan II	NA	NA	**98.7**	NA	**98.7**
Endosulfan Sulfate	**NA**	NA	NA	NA	**NA**
Endrin	NA	NA	**2.23**	2	**2.23**
Endrin Aldehyde	**NA**	NA	NA	NA	**NA**
Heptachlor	NA	NA	**0.0221**	0.4	**0.0221**
Heptachlor Epoxide	NA	NA	NA	**0.2**	**0.2**
Methyoxy-chlor	NA	NA	NA	**40**	**40**
Toxaphene	NA	NA	**0.158**	3	**0.158**

TABLE 2-2. SELECTED SCREENING LEVELS
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

ANALYTE	[a]NMED GW Cleanup Levels (µg/L)	[b]40 CFR 141.62 (µg/L)	[c]NMED Tap Water (µg/L)	[d]USEPA RSL Tap Water HQ 1.0 (µg/L)	Selected Screening Level (µg/L)
Total Metals					
Aluminum, Total	NA	NA	**19,914**	NA	**19,914**
Antimony, Total	**6**	6	7.26	6	**6**
Arsenic, Total	**10**	10	0.855	10	**10**
Barium, Total	**2,000**	2,000	3,277	2,000	**2,000**
Beryllium, Total	**4**	4	12.4	4	**4**
Boron, Total	NA	NA	**3,949**	NA	**3,949**
Cadmium, Total	**5**	5	6.24	5	**5**
Calcium, Total	**NA**	NA	NA	NA	**NA**
Chromium, Total	**50**	100	5.702	100	**50**
Cobalt, Total	NA	NA	**5.98**	NA	**5.98**
Copper, Total	NA	NA	**790**	1,300	**790**
Iron, Total	NA	NA	**13,822**	NA	**13,822**
Lead, Total	**15**	NA	NA	15	**15**
Magnesium, Total	**NA**	NA	NA	NA	**NA**
Manganese, Total	NA	NA	**2,017**	NA	**2,017**
Mercury, Total	**2**	2	0.63	2	**2**
Molybdenum, Total	NA	NA	**98.7**	NA	**98.7**
Nickel, Total	NA	NA	**372**	NA	**372**
Potassium, Total	**NA**	NA	NA	NA	**NA**
Selenium, Total	**50**	50	98.7	50	**50**
Silver, Total	**50**	NA	81.2	NA	**50**
Sodium, Total	**NA**	NA	NA	NA	**NA**
Thallium, Total	**2**	2	0.20	2	**2**
Uranium, Total	**30**	NA	59.2	NA	**30**
Vanadium, Total	NA	NA	**63.1**	NA	**63.1**
Zinc, Total	NA	NA	**5,960**	NA	**5,960**
Dissolved Metals					
Aluminum, Dissolved	NA	NA	**19,914**	NA	**19,914**
Antimony, Dissolved	NA	**6**	7.26	NA	**6**
Arsenic, Dissolved	NA	**10**	0.855	NA	**10**
Barium, Dissolved	NA	**2,000**	3,277	NA	**2,000**
Beryllium, Dissolved	NA	**4**	12.4	NA	**4**
Boron, Dissolved	NA	NA	**3,949**	NA	**3,949**
Cadmium, Dissolved	NA	**5**	6.24	NA	**5**
Calcium, Dissolved	**NA**	NA	NA	NA	**NA**
Chromium, Dissolved	NA	**100**	NA	NA	**100**
Cobalt, Dissolved	NA	NA	**5.98**	NA	**5.98**
Copper, Dissolved	NA	NA	**790**	NA	**790**
Iron, Dissolved	NA	NA	**13,822**	NA	**13,822**
Lead, Dissolved	**NA**	NA	NA	NA	**NA**
Magnesium, Dissolved	**NA**	NA	NA	NA	**NA**
Manganese, Dissolved	NA	NA	**2,017**	NA	**2,017**
Mercury, Dissolved	**NA**	NA	NA	NA	**NA**
Molybdenum, Dissolved	NA	NA	**98.7**	NA	**98.7**
Nickel, Dissolved	NA	NA	**372**	NA	**372**
Potassium, Dissolved	**NA**	NA	NA	NA	**NA**
Selenium, Dissolved	NA	**50**	98.7	NA	**50**
Silver, Dissolved	NA	NA	**81.2**	NA	**81.2**
Sodium, Dissolved	**NA**	NA	NA	NA	**NA**
Thallium, Dissolved	NA	**2**	0.20	NA	**2**
Uranium, Dissolved	**NA**	NA	NA	NA	**NA**
Vanadium, Dissolved	NA	NA	**63.1**	NA	**63.1**
Zinc, Dissolved	NA	NA	**5,960**	NA	**5,960**

Notes:

*Non-cancer tap water value were smaller than the cancer tap water values; the smaller of the two standards was used.

[a]NMED GW Cleanup Levels - New Mexico Environment Department Groundwater Cleanup Levels, New Mexico Administrative Code 20.6.2.3103

[b]40 CFR 141.62 - Code of Federal Regulations, Chapter 40, Section 141.62 Maximum Contaminant Levels

[c]NMED Tap Water - New Mexico Environment Department, Risk Assessment Guidance, Table A-1, Tap Water, June 2019

[d]USEPA RSL Tap Water HQ 1.0 - United States Environmental Protection Agency Regional Screening Levels, Hazardous Quotient 1.0, November 2019

ug/L = micrograms per liter

NA = not applicable

TABLE 2-2. SELECTED SCREENING LEVELS
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

ANALYTE	[a]NMED GW Cleanup Levels	[b]40 CFR 141.62	[c]NMED Tap Water	[d]USEPA RSL Tap Water HQ 1.0	[e]NMED TPH Levels	Selected Screening Level
General Chemistry						
Biochemical Oxygen Demand (ug/L)	NA	NA	NA	NA	NA	NA
Bromide (ug/L)	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (ug/L)	NA	NA	NA	NA	NA	NA
Chloride (ug/L)	250,000	NA	NA	NA	NA	250,000
Conductivity (umhos/cm)	NA	NA	NA	NA	NA	NA
Fluoride, Total (ug/L)	1,600	4,000	1,180	800	NA	1,600
Nitrate & Nitrite (ug/L)	NA	NA	NA	NA	NA	NA
Nitrogen, Nitrate (ug/L)	10,000	10,000	NA	32,000	NA	10,000
Nitrogen, Nitrate & Nitrite (ug/L)	NA	10,000	NA	NA	NA	10,000
Nitrogen, Nitrite (ug/L)	1,000	1,000	NA	2,000	NA	1,000
Ortho-Phosphate (ug/L)	NA	NA	NA	NA	NA	NA
Ortho- Phosphorus (ug/L)	NA	NA	NA	NA	NA	NA
Sulfate (ug/L)	600,000	NA	NA	NA	NA	600,000
Diesel Range Organics (ug/L)	NA	NA	NA	NA	16.7	16.7
Gasoline Range Organics (ug/L)	NA	NA	NA	NA	10.1	10.1
Motor Oil (ug/L)	NA	NA	NA	NA	85.8	85.8
Oil Range Organics (ug/L)	NA	NA	NA	NA	85.8	85.8
C28-C40 (ug/L)	NA	NA	NA	NA	NA	NA
TPH (C6-C10) (ug/L)	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (ug/L)	NA	NA	NA	NA	NA	NA
Solids, Total Suspended (ug/L)	NA	NA	NA	NA	NA	NA
Soluble Salt (ug/L)	NA	NA	NA	NA	NA	NA
Coliform, E-Coli (MPN/100ml)	NA	NA	NA	NA	NA	NA
E-Coli (MPN/100ml)	NA	NA	NA	NA	NA	NA
pH (Std Units)	NA	NA	NA	NA	NA	NA
Resistivity (Mohm/cm)	NA	NA	NA	NA	NA	NA
Temperature (oC)	NA	NA	NA	NA	NA	NA

Notes:

*Non-cancer tap water value were smaller than the cancer tap water values; the smaller of the two standards was used.
[a]NMED GW Cleanup Levels - New Mexico Environment Department Groundwater Cleanup Levels, New Mexico Administrative Code 20.6.2.3103
[b]40 CFR 141.62 - Code of Federal Regulations, Chapter 40, Section 141.62 Maximum Contaminant Levels
[c]NMED Tap Water - New Mexico Environment Department, Risk Assessment Guidance, Table A-1, Tap Water, June 2019
[d]USEPA RSL Tap Water HQ 1.0 - United States Environmental Protection Agency Regional Screening Levels, Hazardous Quotient 1.0, November 2019
[e]NMED TPH Levels – New Mexico Environment Department, Total Petroleum Hydrocarbons Screening Levels, Risk Assessment Guidance for Investigations and Remediation, Table 6-4, March 2017
oC = degrees centigrade
Mohm/cm = Megaohms per centimeter
MPN/100ml = most probable number per 100 milliliters
NA = not applicable
Std = standard
ug/L = micrograms per liter

TABLE 3-1 FLUID LEVEL MONITORING (2020 and 5 Previous Data Points)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location	Date Measured	Depth to Product (ft-bgs)	Depth to Water (ft-bgs)	Product Thickness (ft)	Water Elevation (ft-msl)	Ground Surface Elevation (ft-msl)	Measuring Point Elevation (ft-msl)	Well Casing Height (ft)	Total Depth (ft-bgs)	Depth to Top Screen (ft-bgs)	Depth to Bottom Screen (ft-bgs)
Alluvial/Fluvial Upper Sand Aquifer											
BW-1A	8/10/2015	ND	Dry	NA	Dry	6883.17	6885.12	1.95	44.11	30.00	35.00
BW-1A	9/8/2016	ND	Dry	NA	Dry	6883.17	6885.12	1.95	44.11	30.00	35.00
BW-1A	9/13/2017	ND	Dry	NA	Dry	6883.17	6885.12	1.95	44.11	30.00	35.00
BW-1A	8/15/2018	ND	Dry	NA	Dry	6883.17	6885.12	1.95	40.66	30.00	35.00
BW-1A	8/14/2019	ND	Dry	NA	Dry	6883.17	6885.12	1.95	40.66	30.00	35.00
BW-1A	9/14/2020	ND	Dry	NA	Dry	6883.17	6885.12	1.95	41.75	30.00	35.00
BW-2A	8/10/2015	ND	29.19	NA	6842.69	6871.88	6874.69	2.81	64.76	55.00	65.00
BW-2A	9/8/2016	ND	29.48	NA	6842.40	6871.88	6874.69	2.81	64.76	55.00	65.00
BW-2A	9/13/2017	ND	29.63	NA	6842.25	6871.88	6874.69	2.81	64.76	55.00	65.00
BW-2A	8/15/2018	ND	29.53	NA	6842.35	6871.88	6874.69	2.81	64.76	55.00	65.00
BW-2A	8/14/2019	ND	29.45	NA	6842.43	6871.88	6874.69	2.81	64.76	55.00	65.00
BW-2A	9/14/2020	ND	30.12	NA	6841.76	6871.88	6874.69	2.81	64.40	55.00	65.00
BW-3A	8/10/2015	ND	Dry	NA	Dry	6875.94	6878.39	2.45	49.90	39.50	49.50
BW-3A	9/8/2016	ND	Dry	NA	Dry	6875.94	6878.39	2.45	49.90	39.50	49.50
BW-3A	9/13/2017	ND	Dry	NA	Dry	6875.94	6878.39	2.45	49.90	39.50	49.50
BW-3A	8/15/2018	ND	Dry	NA	Dry	6875.94	6878.39	2.45	49.93	39.50	49.50
BW-3A	8/14/2019	ND	Dry	NA	Dry	6875.94	6878.39	2.45	49.93	39.50	49.50
BW-3A	9/14/2020	ND	Dry	NA	Dry	6875.94	6878.39	2.45	50.85	39.50	49.50
BW-4A	11/7/2018	ND	Dry	NA	Dry	6870.67	6873.18	2.51	35.79	21.00	36.00
BW-4A	3/27/2019	ND	Dry	NA	Dry	6870.67	6873.18	2.92	35.40	21.00	36.00
BW-4A	5/21/2019	ND	Dry	NA	Dry	6870.67	6873.18	2.92	35.40	21.00	36.00
BW-4A	8/23/2019	ND	Dry	NA	Dry	6870.67	6873.18	2.92	35.40	21.00	36.00
BW-4A	10/16/2019	ND	Dry	NA	Dry	6870.67	6873.18	2.92	35.40	21.00	36.00
BW-4A	3/09/2020	ND	35.42	NA	6834.84	6870.67	6873.18	2.92	35.88	21.00	36.00
BW-4A	6/30/2020	ND	Dry	NA	Dry	6870.67	6873.18	2.92	35.88	21.00	36.00
BW-4A	9/14/2020	ND	Dry	NA	Dry	6870.67	6873.18	2.92	35.98	21.00	36.00
BW-4A	12/07/2020	ND	Dry	NA	Dry	6870.67	6873.18	2.92	35.98	21.00	36.00
BW-5A	11/13/2018	ND	Dry	NA	Dry	6874.39	6877.00	2.61	20.41	10.00	20.00
BW-5A	3/27/2019	ND	20.37	NA	6853.75	6874.39	6877.00	2.88	20.12	10.00	20.00
BW-5A	5/21/2019	ND	20.42	NA	6853.70	6874.39	6877.00	2.88	20.12	10.00	20.00
BW-5A	8/15/2019	ND	18.38	NA	6855.74	6874.39	6877.00	2.88	20.14	10.00	20.00
BW-5A	10/16/2019	ND	20.37	NA	6853.75	6874.39	6877.00	2.88	20.42	10.00	20.00
BW-5A	3/05/2020	ND	Dry	NA	Dry	6874.39	6877.00	2.88	20.12	10.00	20.00
BW-5A	6/26/2020	ND	20.33	NA	6853.79	6874.39	6877.00	2.88	20.12	10.00	20.00
BW-5A	9/14/2020	ND	Dry	NA	Dry	6874.39	6877.00	2.88	20.52	10.00	20.00
BW-5A	12/07/2020	ND	20.39	NA	6853.73	6874.39	6877.00	2.88	20.52	10.00	20.00
Chinle/Alluvium Aquifer											
BW-1B	8/10/2015	ND	Dry	NA	Dry	6883.17	6885.78	2.61	73.68	54.60	64.60
BW-1B	9/8/2016	ND	Dry	NA	Dry	6883.17	6885.78	2.61	73.68	54.60	64.60
BW-1B	9/13/2017	ND	Dry	NA	Dry	6883.17	6885.78	2.61	73.68	54.60	64.60
BW-1B	8/15/2018	ND	Dry	NA	Dry	6883.17	6885.78	2.61	70.94	54.60	64.60
BW-1B	8/14/2019	ND	69.61	NA	6813.56	6883.17	6885.78	2.61	70.94	54.60	64.60
BW-1B	9/14/2020	ND	Dry	NA	Dry	6883.17	6885.78	2.61	70.77	54.60	64.60
BW-2B	8/10/2015	ND	25.16	NA	6846.50	6871.66	6874.50	2.84	89.42	80.00	90.00
BW-2B	9/8/2016	ND	25.00	NA	6846.66	6871.66	6874.50	2.84	89.42	80.00	90.00
BW-2B	9/13/2017	ND	25.44	NA	6846.22	6871.66	6874.50	2.84	89.42	80.00	90.00
BW-2B	8/15/2018	ND	25.41	NA	6846.25	6871.66	6874.50	2.84	89.42	80.00	90.00
BW-2B	8/14/2019	ND	25.61	NA	6846.05	6871.66	6874.50	2.84	89.42	80.00	90.00
BW-2B	9/14/2020	ND	25.95	NA	6845.71	6871.66	6874.50	2.84	89.42	80.00	90.00
BW-3B	8/10/2015	ND	30.57	NA	6845.59	6876.16	6878.59	2.43	66.97	63.00	73.00
BW-3B	9/8/2016	ND	30.99	NA	6845.17	6876.16	6878.59	2.43	66.97	63.00	73.00
BW-3B	9/13/2017	ND	30.95	NA	6845.21	6876.16	6878.59	2.43	66.97	63.00	73.00
BW-3B	8/15/2018	ND	30.92	NA	6845.24	6876.16	6878.59	2.43	66.97	63.00	73.00
BW-3B	8/14/2019	ND	30.88	NA	6845.28	6876.16	6878.59	2.43	66.97	63.00	73.00
BW-3B	9/14/2020	ND	31.81	NA	6844.35	6876.16	6878.59	2.43	67.11	63.00	73.00
BW-4B	11/13/2018	ND	42.26	NA	6828.36	6870.62	6873.23	2.61	60.89	41.00	61.00
BW-4B	3/27/2019	ND	36.51	NA	6833.93	6870.62	6873.23	2.79	60.71	41.00	61.00
BW-4B	5/21/2019	ND	43.22	NA	6827.22	6870.62	6873.23	2.79	60.71	41.00	61.00
BW-4B	8/23/2019	ND	43.21	NA	6827.23	6870.62	6873.23	2.79	60.71	41.00	61.00
BW-4B	10/16/2019	ND	44.71	NA	6825.73	6870.62	6873.23	2.79	60.71	41.00	61.00
BW-4B	3/09/2020	ND	37.56	NA	6832.88	6870.62	6873.23	2.79	60.71	41.00	61.00
BW-4B	6/26/2020	NA	NA	NA	NA	6870.62	6873.23	2.79	60.71	41.00	61.00
BW-4B	6/30/2020	ND	41.96	NA	6828.48	6870.62	6873.23	2.79	60.71	41.00	61.00
BW-4B	9/14/2020	ND	37.07	NA	6833.37	6870.62	6873.23	2.79	60.71	41.00	61.00
BW-4B	12/07/2020	ND	33.07	NA	6837.37	6870.62	6873.23	2.79	60.71	41.00	61.00
BW-5B	11/13/2018	ND	8.07	NA	6866.25	6874.32	6876.82	2.50	58.95	48.00	58.00
BW-5B	3/27/2019	ND	6.84	NA	6867.44	6874.32	6876.82	2.54	58.91	48.00	58.00
BW-5B	5/21/2019	ND	6.66	NA	6867.62	6874.32	6876.82	2.54	58.91	48.00	58.00
BW-5B	8/15/2019	ND	7.13	NA	6867.15	6874.32	6876.82	2.54	58.91	48.00	58.00
BW-5B	10/16/2019	ND	7.73	NA	6866.55	6874.32	6876.82	2.54	58.91	48.00	58.00
BW-5B	3/05/2020	ND	7.40	NA	6866.88	6874.32	6876.82	2.54	58.91	48.00	58.00
BW-5B	6/26/2020	ND	7.67	NA	6866.61	6874.32	6876.82	2.54	58.91	48.00	58.00
BW-5B	9/14/2020	ND	8.07	NA	6866.21	6874.32	6876.82	2.54	58.91	48.00	58.00
BW-5B	12/07/2020	ND	7.99	NA	6866.29	6874.32	6876.82	2.54	58.91	48.00	58.00
GWM-1	11/19/2018	19.03	19.16	0.13	6891.06	6910.22	6912.61	2.39	23.81	17.50	23.50
GWM-1	3/28/2019	19.20	19.68	0.48	6890.54	6910.22	6912.61	2.39	23.81	17.50	23.50
GWM-1	5/8/2019	18.93	19.22	0.29	6891.00	6910.22	6912.61	2.39	23.81	17.50	23.50
GWM-1	8/6/2019	18.38	18.51	0.13	6891.71	6910.22	6912.61	2.39	24.03	17.50	23.50
GWM-1	10/21/2019	18.25	18.44	0.19	6891.78	6910.22	6912.61	2.39	23.81	17.50	23.50
GWM-1	3/03/2020	19.01	19.09	0.08	6891.13	6910.22	6912.61	2.39	23.81	17.50	23.50
GWM-1	7/01/2020	17.98 *	18.43 *	0.45	6892.24	6910.22	6912.61	2.39	23.81	17.50	23.50
GWM-1	9/15/2020	18.34	19.01	0.67	6891.21	6910.22	6912.61	2.39	24.26	17.50	23.50
GWM-1	11/09/2020	18.49	19.33	0.84	6890.89	6910.22	6912.61	2.39	24.26	17.50	23.50
GWM-1	12/07/2020	18.52	19.46	0.94	6890.76	6910.22	6912.61	2.39	24.06	17.50	23.50
GWM-2	11/19/2018	ND	Dry	NA	Dry	6910.32	6913.09	2.77	16.04	3.20	16.20
GWM-2	3/28/2019	ND	Dry	NA	Dry	6910.32	6913.09	2.77	16.32	3.20	16.20
GWM-2	5/8/2019	ND	Dry	NA	Dry	6910.32	6913.09	2.77	16.32	3.20	16.20

TABLE 3-1 FLUID LEVEL MONITORING (2020 and 5 Previous Data Points)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location	Date Measured	Depth to Product (ft-bgs)	Depth to Water (ft-bgs)	Product Thickness (ft)	Water Elevation (ft-msl)	Ground Surface Elevation (ft-msl)	Measuring Point Elevation (ft-msl)	Well Casing Height (ft)	Total Depth (ft-bgs)	Depth to Top Screen (ft-bgs)	Depth to Bottom Screen (ft-bgs)
GWM-2	8/6/2019	ND	Dry	NA	Dry	6910.32	6913.09	2.77	16.27	3.20	16.20
GWM-2	10/19/2019	ND	Dry	NA	Dry	6910.32	6913.09	2.77	16.04	3.20	16.20
GWM-2	3/03/2020	ND	Dry	NA	Dry	6910.32	6913.09	2.77	16.04	3.20	16.20
GWM-2	7/01/2020	ND	Dry	NA	Dry	6910.32	6913.09	2.77	8.69	3.20	16.20
GWM-2	9/15/2020	ND	Dry	NA	Dry	6910.32	6913.09	2.77	15.31	3.20	16.20
GWM-2	11/10/2020	ND	Dry	NA	Dry	6910.32	6913.09	2.77	15.31	3.20	16.20
GWM-2	12/07/2020	ND	Dry	NA	Dry	6910.32	6913.09	2.77	15.31	3.20	16.20
GWM-3	8/15/2018	ND	Dry	NA	Dry	6907.35	6910.25	2.90	15.14	3.00	15.00
GWM-3	11/19/2018	ND	Dry	NA	Dry	6907.35	6910.25	2.90	14.90	3.00	15.00
GWM-3	3/28/2019	ND	Dry	NA	Dry	6907.35	6910.25	2.90	15.16	3.00	15.00
GWM-3	5/8/2019	ND	Dry	NA	Dry	6907.35	6910.25	2.90	15.16	3.00	15.00
GWM-3	8/6/2019	ND	Dry	NA	Dry	6907.35	6910.25	2.90	15.14	3.00	15.00
GWM-3	3/03/2020	ND	Dry	NA	Dry	6907.35	6910.25	2.90	15.14	3.00	15.00
GWM-3	7/01/2020	ND	Dry	NA	Dry	6907.35	6910.25	2.90	8.64	3.00	15.00
GWM-3	9/15/2020	ND	Dry	NA	Dry	6907.35	6910.25	2.90	16.25	3.00	15.00
GWM-3	10/11/2020	ND	Dry	NA	Dry	6907.35	6910.25	2.90	16.25	3.00	15.00
GWM-3	12/07/2020	ND	Dry	NA	Dry	6907.35	6910.25	2.90	16.25	3.00	15.00
KA-3	11/8/2018	NA	NA	NA	NA	6913.29	6912.52	-0.77	25.01	15.00	25.00
KA-3	3/28/2019	NA	NA	NA	NA	6913.29	6912.52	-0.77	25.01	15.00	25.00
KA-3	5/28/2019	ND	10.72	NA	6902.57	6913.29	6912.52	-0.77	23.97	15.00	25.00
KA-3	8/22/2019	ND	9.82	NA	6903.47	6913.29	6912.52	-0.77	23.97	15.00	25.00
KA-3	10/21/2019	ND	9.93	NA	6903.36	6913.29	6912.52	-0.77	23.97	15.00	25.00
KA-3	3/03/2020	ND	10.07	NA	6903.22	6913.29	6912.52	-0.77	23.97	15.00	25.00
KA-3	7/01/2020	ND	9.52	NA	6903.77	6913.29	6912.52	-0.77	23.97	15.00	25.00
KA-3	9/15/2020	ND	8.85	NA	6904.44	6913.29	6912.52	-0.77	23.97	15.00	25.00
KA-3	12/07/2020	ND	10.33	NA	6902.96	6913.29	6912.52	-0.77	23.97	15.00	25.00
MKTF-01	11/27/2018	3.11	3.48	0.37	6914.80	6918.28	6920.67	2.39	15.03	5.00	15.00
MKTF-01	2/19/2019	2.01	2.35	0.34	6915.93	6918.28	6920.67	2.39	15.03	5.00	15.00
MKTF-01	5/6/2019	2.00	2.35	0.35	6915.93	6918.28	6920.67	2.39	15.03	5.00	15.00
MKTF-01	8/30/2019	2.19	2.56	0.37	6915.72	6918.28	6920.67	2.39	15.03	5.00	15.00
MKTF-01	11/19/2019	2.75	3.06	0.31	6915.22	6918.28	6920.67	2.39	15.03	5.00	15.00
MKTF-01	2/24/2020	2.48	2.77	0.29	6915.51	6918.28	6920.67	2.39	15.03	5.00	15.00
MKTF-01	6/26/2020	3.11	3.32	0.21	6914.96	6918.28	6920.67	2.39	15.03	5.00	15.00
MKTF-01	9/15/2020	3.22	3.23	0.01	6915.05	6918.28	6920.67	2.39	15.09	5.00	15.00
MKTF-01	11/10/2020	3.22	3.50	0.28	6914.78	6918.28	6920.67	2.39	15.09	5.00	15.00
MKTF-01	12/03/2020	3.35	3.63	0.28	6914.65	6918.28	6920.67	2.39	15.04	5.00	15.00
MKTF-02	11/27/2018	ND	5.95	NA	6909.05	6915.00	6917.45	2.45	17.90	7.00	17.00
MKTF-02	3/28/2019	ND	3.89	NA	6911.11	6915.00	6917.45	2.45	18.03	7.00	17.00
MKTF-02	5/6/2019	ND	3.79	NA	6911.21	6915.00	6917.45	2.45	18.03	7.00	17.00
MKTF-02	8/23/2019	ND	4.60	NA	6910.40	6915.00	6917.45	2.45	17.98	7.00	17.00
MKTF-02	11/19/2019	ND	4.69	NA	6910.31	6915.00	6917.45	2.45	17.90	7.00	17.00
MKTF-02	2/24/2020	ND	4.07	NA	6910.93	6915.00	6917.45	2.45	18.03	7.00	17.00
MKTF-02	6/26/2020	ND	5.25	NA	6909.75	6915.00	6917.45	2.45	18.03	7.00	17.00
MKTF-02	9/15/2020	ND	5.43	NA	6909.57	6915.00	6917.45	2.45	18.09	7.00	17.00
MKTF-02	11/10/2020	ND	4.98	NA	6910.02	6915.00	6917.45	2.45	18.09	7.00	17.00
MKTF-02	12/03/2020	ND	5.27	NA	6909.73	6915.00	6917.45	2.45	18.09	7.00	17.00
MKTF-03	11/19/2018	6.89	7.89	1.00	6923.84	6931.73	6931.69	-0.04	18.49	3.00	18.00
MKTF-03	3/25/2019	4.54	5.64	1.10	6926.09	6931.73	6931.69	-0.04	18.49	3.00	18.00
MKTF-03	5/13/2019	4.59	5.70	1.11	6926.03	6931.73	6931.69	-0.04	18.49	3.00	18.00
MKTF-03	8/21/2019	6.08	7.31	1.23	6924.42	6931.73	6931.69	-0.04	18.57	3.00	18.00
MKTF-03	10/30/2019	6.74	8.04	1.30	6923.69	6931.73	6931.69	-0.04	18.49	3.00	18.00
MKTF-03	3/05/2020	6.51	7.88	1.37	6923.85	6931.73	6931.69	-0.04	18.49	3.00	18.00
MKTF-03	6/26/2020	7.40	8.67	1.27	6923.06	6931.73	6931.69	-0.04	18.49	3.00	18.00
MKTF-03	9/15/2020	7.12	7.13	0.01	6924.60	6931.73	6931.69	-0.04	18.63	3.00	18.00
MKTF-03	11/10/2020	7.17	8.47	1.30	6923.26	6931.73	6931.69	-0.04	18.63	3.00	18.00
MKTF-03	12/03/2020	7.50	8.66	1.16	6923.07	6931.73	6931.69	-0.04	18.62	3.00	18.00
MKTF-04	11/19/2018	ND	8.72	NA	6925.18	6933.90	6933.57	-0.33	22.63	10.00	22.00
MKTF-04	3/25/2019	ND	6.78	NA	6927.12	6933.90	6933.57	-0.33	22.48	10.00	22.00
MKTF-04	5/13/2019	ND	6.88	NA	6927.02	6933.90	6933.57	-0.33	22.48	10.00	22.00
MKTF-04	8/21/2019	ND	8.60	NA	6925.30	6933.90	6933.57	-0.33	22.72	10.00	22.00
MKTF-04	10/30/2019	ND	9.26	NA	6924.64	6933.90	6933.57	-0.33	22.63	10.00	22.00
MKTF-04	3/02/2020	ND	8.80	NA	6925.10	6933.90	6933.57	-0.33	22.54	10.00	22.00
MKTF-04	6/26/2020	ND	10.08	NA	6923.82	6933.90	6933.57	-0.33	22.48	10.00	22.00
MKTF-04	9/15/2020	9.72	9.73	0.01	6924.17	6933.90	6933.57	-0.33	23.05	10.00	22.00
MKTF-04	11/10/2020	ND	9.53	NA	6924.37	6933.90	6933.57	-0.33	23.05	10.00	22.00
MKTF-04	12/03/2020	10.03	10.04	0.01	6923.86	6933.90	6933.57	-0.33	23.05	10.00	22.00
MKTF-05	11/14/2019	8.05	14.44	6.39	6925.05	6939.49	6942.22	2.73	15.02	4.00	14.00
MKTF-05	11/15/2019	7.81	14.43	6.62	6925.06	6939.49	6942.22	2.73	15.02	4.00	14.00
MKTF-05	11/19/2019	7.31	14.45	7.14	6925.04	6939.49	6942.22	2.73	15.02	4.00	14.00
MKTF-05	11/21/2019	7.24	14.45	7.21	6925.04	6939.49	6942.22	2.73	15.02	4.00	14.00
MKTF-05	12/2/2019	7.91	14.44	6.53	6925.05	6939.49	6942.22	2.73	15.02	4.00	14.00
MKTF-05	3/05/2020	10.85	10.99	0.14	6928.50	6939.49	6942.22	2.73	15.02	4.00	14.00
MKTF-05	6/25/2020	11.33	12.07	0.74	6927.42	6939.49	6942.22	2.73	15.02	4.00	14.00
MKTF-05	9/15/2020	10.92	11.95	1.03	6927.54	6939.49	6942.22	2.73	15.10	4.00	14.00
MKTF-05	11/10/2020	11.29	12.17	0.88	6927.32	6939.49	6942.22	2.73	15.10	4.00	14.00
MKTF-05	12/03/2020	11.39	12.20	0.81	6927.29	6939.49	6942.22	2.73	15.07	4.00	14.00
MKTF-06	11/14/2019	13.85	14.74	0.89	6929.50	6944.24	6946.81	2.57	21.20	8.00	20.00
MKTF-06	11/15/2019	13.78	14.63	0.85	6929.61	6944.24	6946.81	2.57	21.20	8.00	20.00
MKTF-06	11/19/2019	13.51	14.26	0.75	6929.98	6944.24	6946.81	2.57	21.20	8.00	20.00
MKTF-06	11/21/2019	13.36	14.67	1.31	6929.57	6944.24	6946.81	2.57	21.20	8.00	20.00
MKTF-06	12/2/2019	12.18	18.79	6.61	6925.45	6944.24	6946.81	2.57	21.20	8.00	20.00
MKTF-06	3/05/2020	14.32	16.03	1.71	6928.21	6944.24	6946.81	2.57	21.20	8.00	20.00
MKTF-06	6/25/2020	11.48	16.33	4.85	6927.91	6944.24	6946.81	2.57	21.20	8.00	20.00
MKTF-06	9/15/2020	14.21	16.14	1.93	6928.10	6944.24	6946.81	2.57	21.22	8.00	20.00
MKTF-06	11/10/2020	14.63	16.02	1.39	6928.22	6944.24	6946.81	2.57	21.22	8.00	20.00
MKTF-06	12/03/2020	14.81	15.92	1.11	6928.32	6944.24	6946.81	2.57	21.22	8.00	20.00
MKTF-07	11/14/2019	9.20	10.36	1.16	6934.04	6944.40	6947.18	2.78	14.84	4.00	14.00
MKTF-07	11/15/2019	9.22	10.38	1.16	6934.02	6944.40	6947.18	2.78	14.84	4.00	14.00

TABLE 3-1 FLUID LEVEL MONITORING (2020 and 5 Previous Data Points)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location	Date Measured	Depth to Product (ft-bgs)	Depth to Water (ft-bgs)	Product Thickness (ft)	Water Elevation (ft-msl)	Ground Surface Elevation (ft-msl)	Measuring Point Elevation (ft-msl)	Well Casing Height (ft)	Total Depth (ft-bgs)	Depth to Top Screen (ft-bgs)	Depth to Bottom Screen (ft-bgs)
MKTF-07	11/19/2019	8.62	11.39	2.77	6933.01	6944.40	6947.18	2.78	14.84	4.00	14.00
MKTF-07	11/21/2019	8.05	13.77	5.72	6930.63	6944.40	6947.18	2.78	14.84	4.00	14.00
MKTF-07	12/2/2019	8.60	14.34	5.74	6930.06	6944.40	6947.18	2.78	14.84	4.00	14.00
MKTF-07	3/05/2020	9.72	10.94	1.22	6933.46	6944.40	6947.18	2.78	14.84	4.00	14.00
MKTF-07	6/25/2020	9.45	10.98	1.53	6933.42	6944.40	6947.18	2.78	14.84	4.00	14.00
MKTF-07	9/18/2020	8.64	10.99	2.35	6933.41	6944.40	6947.18	2.78	14.65	4.00	14.00
MKTF-07	11/10/2020	9.78	10.98	1.20	6933.42	6944.40	6947.18	2.78	14.65	4.00	14.00
MKTF-07	12/03/2020	10.15	11.02	0.87	6933.38	6944.40	6947.18	2.78	14.88	4.00	14.00
MKTF-08	5/13/2019	8.88	9.36	0.48	6934.66	6944.02	6947.09	3.07	18.91	8.00	18.00
MKTF-08	8/30/2019	9.43	9.83	0.40	6934.19	6944.02	6947.09	3.07	18.91	8.00	18.00
MKTF-08	10/30/2019	10.47	10.92	0.45	6933.10	6944.02	6947.09	3.07	18.91	8.00	18.00
MKTF-08	11/21/2019	10.40	10.78	0.38	6933.24	6944.02	6947.09	3.07	18.91	8.00	18.00
MKTF-08	12/2/2019	10.65	11.06	0.41	6932.96	6944.02	6947.09	3.07	18.91	8.00	18.00
MKTF-08	3/05/2020	10.96	11.30	0.34	6932.72	6944.02	6947.09	3.07	18.91	8.00	18.00
MKTF-08	6/25/2020	10.93	11.33	0.40	6932.69	6944.02	6947.09	3.07	18.91	8.00	18.00
MKTF-08	9/18/2020	10.69	11.08	0.39	6932.94	6944.02	6947.09	3.07	18.93	8.00	18.00
MKTF-08	11/10/2020	11.16	11.62	0.46	6932.40	6944.02	6947.09	3.07	18.93	8.00	18.00
MKTF-08	12/03/2020	11.29	11.69	0.40	6932.33	6944.02	6947.09	3.07	18.94	8.00	18.00
MKTF-09	11/27/2018	ND	10.88	NA	6932.69	6943.57	6946.50	2.93	19.82	7.00	19.00
MKTF-09	3/25/2019	ND	8.17	NA	6935.40	6943.57	6946.50	2.93	19.77	7.00	19.00
MKTF-09	5/13/2019	ND	9.34	NA	6934.23	6943.57	6946.50	2.93	19.77	7.00	19.00
MKTF-09	8/28/2019	ND	10.35	NA	6933.22	6943.57	6946.50	2.93	19.81	7.00	19.00
MKTF-09	11/18/2019	ND	11.04	NA	6932.53	6943.57	6946.50	2.93	19.82	7.00	19.00
MKTF-09	3/02/2020	ND	11.30	NA	6932.27	6943.57	6946.50	2.93	19.83	7.00	19.00
MKTF-09	6/25/2020	ND	11.62	NA	6931.95	6943.57	6946.50	2.93	19.84	7.00	19.00
MKTF-09	9/18/2020	11.26	11.27	0.01	6932.30	6943.57	6946.50	2.93	19.48	7.00	19.00
MKTF-09	11/10/2020	11.68	11.69	0.01	6931.88	6943.57	6946.50	2.93	19.48	7.00	19.00
MKTF-09	12/03/2020	11.82	11.83	0.01	6931.74	6943.57	6946.50	2.93	19.85	7.00	19.00
MKTF-10	11/19/2018	ND	7.60	NA	6929.91	6937.51	6937.16	-0.35	16.34	7.00	17.00
MKTF-10	3/25/2019	ND	6.05	NA	6931.46	6937.51	6937.16	-0.35	16.34	7.00	17.00
MKTF-10	5/13/2019	ND	6.58	NA	6930.93	6937.51	6937.16	-0.35	16.34	7.00	17.00
MKTF-10	8/21/2019	ND	8.00	NA	6929.51	6937.51	6937.16	-0.35	16.63	7.00	17.00
MKTF-10	10/30/2019	ND	7.63	NA	6929.88	6937.51	6937.16	-0.35	16.34	7.00	17.00
MKTF-10	3/02/2020	ND	8.02	NA	6929.49	6937.51	6937.16	-0.35	16.34	7.00	17.00
MKTF-10	6/25/2020	ND	7.42	NA	6930.09	6937.51	6937.16	-0.35	16.34	7.00	17.00
MKTF-10	9/18/2020	7.87	7.88	0.01	6929.63	6937.51	6937.16	-0.35	16.76	7.00	17.00
MKTF-10	11/10/2020	ND	8.14	NA	6929.37	6937.51	6937.16	-0.35	16.76	7.00	17.00
MKTF-10	12/03/2020	ND	8.15	NA	6929.36	6937.51	6937.16	-0.35	16.85	7.00	17.00
MKTF-11	11/19/2018	ND	7.47	NA	6924.14	6931.61	6931.34	-0.27	18.41	8.00	18.00
MKTF-11	3/25/2019	ND	5.23	NA	6926.38	6931.61	6931.34	-0.27	18.41	8.00	18.00
MKTF-11	5/13/2019	ND	5.51	NA	6926.10	6931.61	6931.34	-0.27	18.41	8.00	18.00
MKTF-11	8/21/2019	ND	6.49	NA	6925.12	6931.61	6931.34	-0.27	18.75	8.00	18.00
MKTF-11	10/30/2019	ND	7.33	NA	6924.28	6931.61	6931.34	-0.27	18.41	8.00	18.00
MKTF-11	3/02/2020	ND	8.16	NA	6923.45	6931.61	6931.34	-0.27	18.41	8.00	18.00
MKTF-11	6/26/2020	7.94	7.95	0.01	6923.66	6931.61	6931.34	-0.27	18.41	8.00	18.00
MKTF-11	9/18/2020	7.86	7.87	0.01	6923.74	6931.61	6931.34	-0.27	18.72	8.00	18.00
MKTF-11	11/10/2020	ND	7.88	NA	6923.73	6931.61	6931.34	-0.27	18.72	8.00	18.00
MKTF-11	12/03/2020	8.16	8.18	0.02	6923.43	6931.61	6931.34	-0.27	18.72	8.00	18.00
MKTF-12	11/14/2019	15.70	15.78	0.08	6923.92	6939.70	6942.11	2.41	23.19	12.00	22.00
MKTF-12	11/15/2019	15.69	15.77	0.08	6923.93	6939.70	6942.11	2.41	23.19	12.00	22.00
MKTF-12	11/19/2019	15.59	15.68	0.09	6924.02	6939.70	6942.11	2.41	23.19	12.00	22.00
MKTF-12	11/21/2019	15.63	15.79	0.16	6923.91	6939.70	6942.11	2.41	23.19	12.00	22.00
MKTF-12	12/2/2019	15.29	15.34	0.05	6924.36	6939.70	6942.11	2.41	23.19	12.00	22.00
MKTF-12	2/27/2020	15.43	15.51	0.08	6924.19	6939.70	6942.11	2.41	23.19	12.00	22.00
MKTF-12	6/29/2020	16.72	16.84	0.12	6922.86	6939.70	6942.11	2.41	23.19	12.00	22.00
MKTF-12	9/18/2020	16.23	16.24	0.01	6923.46	6939.70	6942.11	2.41	23.41	12.00	22.00
MKTF-12	11/10/2020	15.56	15.59	0.03	6924.11	6939.70	6942.11	2.41	23.41	12.00	22.00
MKTF-12	12/03/2020	16.49	16.65	0.16	6923.05	6939.70	6942.11	2.41	23.48	12.00	22.00
MKTF-13	11/14/2019	ND	11.34	NA	6922.33	6933.67	6935.18	1.51	19.74	8.00	18.00
MKTF-13	11/15/2019	ND	11.29	NA	6922.38	6933.67	6935.18	1.51	19.74	8.00	18.00
MKTF-13	11/19/2019	ND	11.20	NA	6922.47	6933.67	6935.18	1.51	19.74	8.00	18.00
MKTF-13	11/21/2019	ND	11.24	NA	6922.43	6933.67	6935.18	1.51	19.74	8.00	18.00
MKTF-13	12/2/2019	ND	10.89	NA	6922.78	6933.67	6935.18	1.51	19.74	8.00	18.00
MKTF-13	2/27/2020	9.62	15.80	6.18	6917.87	6933.67	6935.18	1.51	19.74	8.00	18.00
MKTF-13	6/29/2020	11.16	16.70	5.54	6916.97	6933.67	6935.18	1.51	19.74	8.00	18.00
MKTF-13	9/18/2020	11.04	15.41	4.37	6918.26	6933.67	6935.18	1.51	20.62	8.00	18.00
MKTF-13	11/10/2020	10.47	14.85	4.38	6918.82	6933.67	6935.18	1.51	20.62	8.00	18.00
MKTF-13	12/03/2020	11.33	15.14	3.81	6918.53	6933.67	6935.18	1.51	20.41	8.00	18.00
MKTF-14	11/27/2018	3.89	4.28	0.39	6921.37	6925.65	6928.02	2.37	15.09	4.00	14.00
MKTF-14	3/25/2019	1.52	1.88	0.36	6923.77	6925.65	6928.02	2.37	15.09	4.00	14.00
MKTF-14	5/9/2019	2.28	2.67	0.39	6922.98	6925.65	6928.02	2.37	15.09	4.00	14.00
MKTF-14	8/20/2019	3.27	3.55	0.28	6922.10	6925.65	6928.02	2.37	15.08	4.00	14.00
MKTF-14	10/28/2019	3.65	4.02	0.37	6921.63	6925.65	6928.02	2.37	15.09	4.00	14.00
MKTF-14	2/27/2020	2.98	3.28	0.30	6922.37	6925.65	6928.02	2.37	15.09	4.00	14.00
MKTF-14	6/29/2020	4.01	6.21	2.20	6919.44	6925.65	6928.02	2.37	15.09	4.00	14.00
MKTF-14	9/18/2020	3.81	5.79	1.98	6919.86	6925.65	6928.02	2.37	14.95	4.00	14.00
MKTF-14	11/10/2020	3.61	3.91	0.30	6921.74	6925.65	6928.02	2.37	14.95	4.00	14.00
MKTF-14	12/03/2020	4.42	4.69	0.27	6920.96	6925.65	6928.02	2.37	15.18	4.00	14.00
MKTF-15	11/19/2018	12.83	12.96	0.13	6930.78	6943.74	6943.48	-0.26	19.74	9.00	19.00
MKTF-15	3/25/2019	11.24	11.26	0.02	6932.48	6943.74	6943.48	-0.26	19.74	9.00	19.00
MKTF-15	5/13/2019	ND	11.85	NA	6931.89	6943.74	6943.48	-0.26	19.74	9.00	19.00
MKTF-15	8/21/2019	12.28	12.29	0.01	6931.45	6943.74	6943.48	-0.26	19.76	9.00	19.00
MKTF-15	10/30/2019	12.91	12.96	0.05	6930.78	6943.74	6943.48	-0.26	19.74	9.00	19.00
MKTF-15	2/03/2020	13.28	13.37	0.09	6930.37	6943.74	6943.48	-0.26	19.74	9.00	19.00
MKTF-15	6/26/2020	13.37	13.43	0.06	6930.31	6943.74	6943.48	-0.26	19.74	9.00	19.00
MKTF-15	9/18/2020	13.26	13.29	0.03	6930.45	6943.74	6943.48	-0.26	19.44	9.00	19.00
MKTF-15	11/10/2020	13.65	13.86	0.21	6929.88	6943.74	6943.48	-0.26	19.78	9.00	19.00
MKTF-16	11/29/2018	ND	9.96	NA	6941.04	6951.00	6950.58	-0.42	14.52	4.00	14.00

TABLE 3-1 FLUID LEVEL MONITORING (2020 and 5 Previous Data Points)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location	Date Measured	Depth to Product (ft-bgs)	Depth to Water (ft-bgs)	Product Thickness (ft)	Water Elevation (ft-msl)	Ground Surface Elevation (ft-msl)	Measuring Point Elevation (ft-msl)	Well Casing Height (ft)	Total Depth (ft-bgs)	Depth to Top Screen (ft-bgs)	Depth to Bottom Screen (ft-bgs)
MKTF-16	2/20/2019	ND	7.47	NA	6943.53	6951.00	6950.58	-0.42	14.52	4.00	14.00
MKTF-16	5/13/2019	ND	8.77	NA	6942.23	6951.00	6950.58	-0.42	14.52	4.00	14.00
MKTF-16	8/21/2019	ND	9.64	NA	6941.36	6951.00	6950.58	-0.42	14.50	4.00	14.00
MKTF-16	10/30/2019	ND	10.31	NA	6940.69	6951.00	6950.58	-0.42	14.52	4.00	14.00
MKTF-16	2/05/2020	ND	10.10	NA	6940.90	6951.00	6950.58	-0.42	14.52	4.00	14.00
MKTF-16	6/26/2020	ND	9.96	NA	6941.04	6951.00	6950.58	-0.42	14.52	4.00	14.00
MKTF-16	9/18/2020	9.60	9.61	0.01	6941.39	6951.00	6950.58	-0.42	11.34	4.00	14.00
MKTF-16	11/10/2020	ND	7.62	NA	6943.38	6951.00	6950.58	-0.42	11.34	4.00	14.00
MKTF-16	12/08/2020	ND	10.12	NA	6940.88	6951.00	6950.58	-0.42	11.37	4.00	14.00
MKTF-17	10/29/2019	ND	15.23	NA	6930.56	6945.79	6945.76	-0.03	24.68	14.00	24.00
MKTF-17	11/12/2019	ND	11.89	NA	6933.90	6945.79	6945.76	-0.03	24.68	14.00	24.00
MKTF-17	11/19/2019	12.38	13.98	1.60	6931.81	6945.79	6945.76	-0.03	24.68	14.00	24.00
MKTF-17	11/21/2019	12.45	15.33	2.88	6930.46	6945.79	6945.76	-0.03	24.68	14.00	24.00
MKTF-17	12/2/2019	13.20	18.08	4.88	6927.71	6945.79	6945.76	-0.03	24.68	14.00	24.00
MKTF-17	2/03/2020	11.47	16.88	5.41	6928.91	6945.79	6945.76	-0.03	24.14	14.00	24.00
MKTF-17	6/29/2020	10.22	15.53	5.31	6930.26	6945.79	6945.76	-0.03	24.14	14.00	24.00
MKTF-17	9/14/2020	10.03	15.40	5.37	6930.39	6945.79	6945.76	-0.03	24.70	14.00	24.00
MKTF-17	11/10/2020	11.42	11.62	0.20	6934.17	6945.79	6945.76	-0.03	24.70	14.00	24.00
MKTF-17	12/04/2020	11.31	11.50	0.19	6934.29	6945.79	6945.76	-0.03	24.69	14.00	24.00
MKTF-18	5/16/2019	ND	7.86	NA	6943.11	6950.97	6950.65	-0.32	25.70	17.00	27.00
MKTF-18	8/19/2019	8.03	8.04	0.01	6942.93	6950.97	6950.65	-0.32	27.77	17.00	27.00
MKTF-18	10/28/2019	ND	8.11	NA	6942.86	6950.97	6950.65	-0.32	25.70	17.00	27.00
MKTF-18	10/29/2019	ND	8.62	NA	6942.35	6950.97	6950.65	-0.32	25.70	17.00	27.00
MKTF-18	11/12/2019	ND	8.51	NA	6942.46	6950.97	6950.65	-0.32	25.70	17.00	27.00
MKTF-18	2/05/2020	ND	9.42	NA	6941.55	6950.97	6950.65	-0.32	25.70	17.00	27.00
MKTF-18	6/30/2020	ND	9.30	NA	6941.67	6950.97	6950.65	-0.32	25.70	17.00	27.00
MKTF-18	9/18/2020	8.81	8.82	0.01	6942.15	6950.97	6950.65	-0.32	22.05	17.00	27.00
MKTF-18	11/10/2020	ND	9.06	NA	6941.91	6950.97	6950.65	-0.32	22.05	17.00	27.00
MKTF-18	12/04/2020	ND	9.12	NA	6941.85	6950.97	6950.65	-0.32	25.82	17.00	27.00
MKTF-19	10/29/2019	ND	15.98	NA	6928.91	6944.89	6944.67	-0.22	18.42	10.00	20.00
MKTF-19	11/12/2019	ND	11.07	NA	6933.82	6944.89	6944.67	-0.22	18.42	10.00	20.00
MKTF-19	11/19/2019	ND	11.12	NA	6933.77	6944.89	6944.67	-0.22	18.42	10.00	20.00
MKTF-19	11/21/2019	ND	11.27	NA	6933.62	6944.89	6944.67	-0.22	18.42	10.00	20.00
MKTF-19	12/2/2019	11.85	12.72	0.87	6932.17	6944.89	6944.67	-0.22	18.42	10.00	20.00
MKTF-19	2/03/2020	11.57	12.62	1.05	6932.27	6944.89	6944.67	-0.22	17.69	10.00	20.00
MKTF-19	6/29/2020	12.30	13.51	1.21	6931.38	6944.89	6944.67	-0.22	17.69	10.00	20.00
MKTF-19	9/14/2020	12.17	12.19	0.02	6932.70	6944.89	6944.67	-0.22	19.46	10.00	20.00
MKTF-19	11/10/2020	12.44	13.77	1.33	6931.12	6944.89	6944.67	-0.22	19.46	10.00	20.00
MKTF-19	12/04/2020	12.40	13.64	1.24	6931.25	6944.89	6944.67	-0.22	19.60	10.00	20.00
MKTF-20	11/29/2018	ND	7.63	NA	6944.26	6951.89	6951.78	-0.11	9.69	2.00	10.00
MKTF-20	2/20/2019	ND	6.40	NA	6945.49	6951.89	6951.78	-0.11	8.94	2.00	10.00
MKTF-20	5/13/2019	ND	7.25	NA	6944.64	6951.89	6951.78	-0.11	8.94	2.00	10.00
MKTF-20	8/20/2019	ND	8.14	NA	6943.75	6951.89	6951.78	-0.11	8.94	2.00	10.00
MKTF-20	11/4/2019	ND	7.79	NA	6944.10	6951.89	6951.78	-0.11	8.94	2.00	10.00
MKTF-20	2/05/2020	ND	9.13	NA	6942.76	6951.89	6951.78	-0.11	8.94	2.00	10.00
MKTF-20	6/26/2020	ND	8.78	NA	6943.11	6951.89	6951.78	-0.11	8.94	2.00	10.00
MKTF-20	9/15/2020	8.65	9.46	0.81	6942.43	6951.89	6951.78	-0.11	9.73	2.00	10.00
MKTF-20	11/10/2020	8.21	9.01	0.80	6942.88	6951.89	6951.78	-0.11	9.73	2.00	10.00
MKTF-20	12/08/2020	8.87	9.06	0.19	6942.83	6951.89	6951.78	-0.11	9.71	2.00	10.00
MKTF-21	11/29/2018	ND	7.63	NA	6945.05	6952.68	6952.57	-0.11	8.92	2.00	10.00
MKTF-21	2/20/2019	ND	5.73	NA	6946.95	6952.68	6952.57	-0.11	8.92	2.00	10.00
MKTF-21	5/13/2019	ND	6.81	NA	6945.87	6952.68	6952.57	-0.11	8.92	2.00	10.00
MKTF-21	8/20/2019	ND	7.33	NA	6945.35	6952.68	6952.57	-0.11	8.92	2.00	10.00
MKTF-21	10/30/2019	ND	8.43	NA	6944.25	6952.68	6952.57	-0.11	8.92	2.00	10.00
MKTF-21	2/05/2020	ND	8.36	NA	6944.32	6952.68	6952.57	-0.11	8.94	2.00	10.00
MKTF-21	6/26/2020	8.28	8.31	0.03	6944.37	6952.68	6952.57	-0.11	8.94	2.00	10.00
MKTF-21	9/15/2020	7.19	7.20	0.01	6945.48	6952.68	6952.57	-0.11	8.95	2.00	10.00
MKTF-21	11/10/2020	ND	6.52	NA	6946.16	6952.68	6952.57	-0.11	8.95	2.00	10.00
MKTF-21	12/04/2020	8.15	8.16	0.01	6944.52	6952.68	6952.57	-0.11	8.91	2.00	10.00
MKTF-22	11/27/2018	ND	23.02	NA	6916.74	6939.76	6942.31	2.55	33.05	22.00	32.00
MKTF-22	3/25/2019	ND	21.88	NA	6917.88	6939.76	6942.31	2.55	32.70	22.00	32.00
MKTF-22	5/9/2019	ND	22.09	NA	6917.67	6939.76	6942.31	2.55	32.70	22.00	32.00
MKTF-22	8/20/2019	ND	22.40	NA	6917.36	6939.76	6942.31	2.55	33.07	22.00	32.00
MKTF-22	10/24/2019	ND	22.85	NA	6916.91	6939.76	6942.31	2.55	33.05	22.00	32.00
MKTF-22	2/27/2020	21.93	22.98	1.05	6916.78	6939.76	6942.31	2.55	32.70	22.00	32.00
MKTF-22	6/29/2020	22.02	25.16	3.14	6914.60	6939.76	6942.31	2.55	32.70	22.00	32.00
MKTF-22	9/14/2020	22.43	25.13	2.70	6914.63	6939.76	6942.31	2.55	32.54	22.00	32.00
MKTF-22	11/10/2020	22.39	24.74	2.35	6915.02	6939.76	6942.31	2.55	32.54	22.00	32.00
MKTF-22	12/04/2020	22.55	25.00	2.45	6914.76	6939.76	6942.31	2.55	32.54	22.00	32.00
MKTF-23	11/27/2018	11.45	11.49	0.04	6915.74	6927.23	6929.98	2.75	17.61	7.00	17.00
MKTF-23	3/25/2019	ND	9.80	NA	6917.43	6927.23	6929.98	2.75	17.61	7.00	17.00
MKTF-23	5/9/2019	10.20	10.27	0.07	6916.96	6927.23	6929.98	2.75	17.61	7.00	17.00
MKTF-23	8/20/2019	10.72	10.75	0.03	6916.48	6927.23	6929.98	2.75	17.63	7.00	17.00
MKTF-23	10/28/2019	ND	11.20	NA	6916.03	6927.23	6929.98	2.75	17.61	7.00	17.00
MKTF-23	2/27/2020	10.67	10.67	0.00	6916.56	6927.23	6929.98	2.75	17.61	7.00	17.00
MKTF-23	6/29/2020	ND	10.50	NA	6916.73	6927.23	6929.98	2.75	17.61	7.00	17.00
MKTF-23	9/19/2020	12.67	12.69	0.02	6914.54	6927.23	6929.98	2.75	17.27	7.00	17.00
MKTF-23	11/10/2020	ND	11.48	NA	6915.75	6927.23	6929.98	2.75	17.27	7.00	17.00
MKTF-23	12/04/2020	11.40	11.41	0.01	6915.82	6927.23	6929.98	2.75	17.64	7.00	17.00
MKTF-24	11/14/2018	ND	20.65	NA	6905.42	6926.07	6928.72	2.65	28.17	18.00	28.00
MKTF-24	2/25/2019	ND	19.78	NA	6906.29	6926.07	6928.72	2.65	27.82	18.00	28.00
MKTF-24	5/6/2019	ND	18.88	NA	6907.19	6926.07	6928.72	2.65	27.82	18.00	28.00
MKTF-24	8/23/2019	ND	19.40	NA	6906.67	6926.07	6928.72	2.65	28.20	18.00	28.00
MKTF-24	10/22/2019	ND	20.56	NA	6905.51	6926.07	6928.72	2.65	28.17	18.00	28.00
MKTF-24	2/24/2020	ND	19.52	NA	6906.55	6926.07	6928.72	2.65	27.82	18.00	28.00
MKTF-24	6/26/2020	ND	20.15	NA	6905.92	6926.07	6928.72	2.65	27.82	18.00	28.00
MKTF-24	9/15/2020	ND	20.70	NA	6905.37	6926.07	6928.72	2.65	28.48	18.00	28.00
MKTF-24	11/10/2020	ND	20.67	NA	6905.40	6926.07	6928.72	2.65	28.48	18.00	28.00

TABLE 3-1 FLUID LEVEL MONITORING (2020 and 5 Previous Data Points)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location	Date Measured	Depth to Product (ft-bgs)	Depth to Water (ft-bgs)	Product Thickness (ft)	Water Elevation (ft-msl)	Ground Surface Elevation (ft-msl)	Measuring Point Elevation (ft-msl)	Well Casing Height (ft)	Total Depth (ft-bgs)	Depth to Top Screen (ft-bgs)	Depth to Bottom Screen (ft-bgs)
MKTF-24	12/04/2020	ND	20.57	NA	6905.50	6926.07	6928.72	2.65	28.53	18.00	28.00
MKTF-25	2/14/2019	ND	10.29	NA	6903.06	6913.35	6916.19	2.84	16.59	6.00	16.00
MKTF-25	5/6/2019	ND	9.16	NA	6904.19	6913.35	6916.19	2.84	16.59	6.00	16.00
MKTF-25	8/23/2019	ND	10.28	NA	6903.07	6913.35	6916.19	2.84	16.94	6.00	16.00
MKTF-25	8/27/2019	ND	10.39	NA	6902.96	6913.35	6916.19	2.84	17.94	6.00	16.00
MKTF-25	10/22/2019	ND	10.88	NA	6902.47	6913.35	6916.19	2.84	16.96	6.00	16.00
MKTF-25	2/26/2020	ND	10.10	NA	6903.25	6913.35	6916.19	2.84	16.59	6.00	16.00
MKTF-25	6/26/2020	ND	10.49	NA	6902.86	6913.35	6916.19	2.84	16.59	6.00	16.00
MKTF-25	9/15/2020	ND	11.06	NA	6902.29	6913.35	6916.19	2.84	17.25	6.00	16.00
MKTF-25	11/10/2020	ND	10.91	NA	6902.44	6913.35	6916.19	2.84	17.25	6.00	16.00
MKTF-25	12/04/2020	ND	10.78	NA	6902.57	6913.35	6916.19	2.84	17.54	6.00	16.00
MKTF-26	11/14/2018	5.69	7.14	1.45	6905.41	6912.55	6915.31	2.76	14.39	4.00	14.00
MKTF-26	2/14/2019	5.62	6.39	0.77	6906.16	6912.55	6915.31	2.76	14.39	4.00	14.00
MKTF-26	5/6/2019	5.04	5.89	0.85	6906.66	6912.55	6915.31	2.76	14.39	4.00	14.00
MKTF-26	8/23/2019	5.46	6.29	0.83	6906.26	6912.55	6915.31	2.76	14.41	4.00	14.00
MKTF-26	10/22/2019	5.87	6.60	0.73	6905.95	6912.55	6915.31	2.76	14.39	4.00	14.00
MKTF-26	2/26/2020	5.59	6.35	0.76	6906.20	6912.55	6915.31	2.76	14.39	4.00	14.00
MKTF-26	6/26/2020	5.85	6.74	0.89	6905.81	6912.55	6915.31	2.76	14.39	4.00	14.00
MKTF-26	9/15/2020	6.05	6.80	0.75	6905.75	6912.55	6915.31	2.76	14.09	4.00	14.00
MKTF-26	11/10/2020	5.89	6.60	0.71	6905.95	6912.55	6915.31	2.76	14.09	4.00	14.00
MKTF-26	12/04/2020	4.91	6.63	1.72	6905.92	6912.55	6915.31	2.76	14.40	4.00	14.00
MKTF-27	11/14/2018	ND	3.77	NA	6911.59	6915.36	6917.90	2.54	12.18	1.00	12.00
MKTF-27	2/25/2019	ND	1.21	NA	6914.15	6915.36	6917.90	2.54	12.18	1.00	12.00
MKTF-27	5/6/2019	ND	3.19	NA	6912.17	6915.36	6917.90	2.54	12.18	1.00	12.00
MKTF-27	8/21/2019	ND	3.12	NA	6912.24	6915.36	6917.90	2.54	12.18	1.00	12.00
MKTF-27	10/30/2019	ND	3.60	NA	6911.76	6915.36	6917.90	2.54	12.18	1.00	12.00
MKTF-27	2/24/2020	ND	1.07	NA	6914.29	6915.36	6917.90	2.54	12.18	1.00	12.00
MKTF-27	6/30/2020	ND	4.16	NA	6911.20	6915.36	6917.90	2.54	12.18	1.00	12.00
MKTF-27	9/15/2020	ND	3.67	NA	6911.69	6915.36	6917.90	2.54	12.18	1.00	12.00
MKTF-27	11/10/2020	ND	4.18	NA	6911.18	6915.36	6917.90	2.54	12.18	1.00	12.00
MKTF-27	12/04/2020	ND	3.93	NA	6911.43	6915.36	6917.90	2.54	12.20	1.00	12.00
MKTF-28	11/14/2018	ND	3.27	NA	6915.40	6918.67	6921.52	2.85	13.28	3.00	13.00
MKTF-28	2/25/2019	ND	2.06	NA	6916.61	6918.67	6921.52	2.85	13.31	3.00	13.00
MKTF-28	5/6/2019	ND	6.42	NA	6912.25	6918.67	6921.52	2.85	13.31	3.00	13.00
MKTF-28	8/21/2019	ND	0.97	NA	6917.70	6918.67	6921.52	2.85	13.30	3.00	13.00
MKTF-28	10/22/2019	ND	3.53	NA	6915.14	6918.67	6921.52	2.85	13.28	3.00	13.00
MKTF-28	2/24/2020	ND	1.68	NA	6916.99	6918.67	6921.52	2.85	13.31	3.00	13.00
MKTF-28	6/30/2020	ND	1.99	NA	6916.68	6918.67	6921.52	2.85	13.31	3.00	13.00
MKTF-28	9/15/2020	ND	1.74	NA	6916.93	6918.67	6921.52	2.85	13.32	3.00	13.00
MKTF-28	11/10/2020	ND	5.96	NA	6912.71	6918.67	6921.52	2.85	13.32	3.00	13.00
MKTF-28	12/04/2020	ND	4.28	NA	6914.39	6918.67	6921.52	2.85	13.31	3.00	13.00
MKTF-29	11/14/2018	ND	1.30	NA	6897.53	6898.83	6901.62	2.79	20.01	10.00	20.00
MKTF-29	2/25/2019	ND	0.94	NA	6897.89	6898.83	6901.62	2.79	20.05	10.00	20.00
MKTF-29	5/6/2019	ND	0.93	NA	6897.90	6898.83	6901.62	2.79	20.05	10.00	20.00
MKTF-29	8/23/2019	ND	3.04	NA	6895.79	6898.83	6901.62	2.79	20.03	10.00	20.00
MKTF-29	10/22/2019	ND	3.53	NA	6895.30	6898.83	6901.62	2.79	20.01	10.00	20.00
MKTF-29	2/24/2020	ND	1.70	NA	6897.13	6898.83	6901.62	2.79	20.05	10.00	20.00
MKTF-29	6/26/2020	ND	3.63	NA	6895.20	6898.83	6901.62	2.79	20.05	10.00	20.00
MKTF-29	9/15/2020	ND	5.22	NA	6893.61	6898.83	6901.62	2.79	19.99	10.00	20.00
MKTF-29	11/10/2020	ND	4.19	NA	6894.64	6898.83	6901.62	2.79	19.99	10.00	20.00
MKTF-29	12/04/2020	ND	3.61	NA	6895.22	6898.83	6901.62	2.79	20.06	10.00	20.00
MKTF-30	11/14/2018	ND	12.45	NA	6885.65	6898.10	6900.80	2.70	20.49	10.00	20.00
MKTF-30	3/28/2019	ND	10.98	NA	6887.12	6898.10	6900.80	2.70	20.50	10.00	20.00
MKTF-30	5/6/2019	ND	11.11	NA	6886.99	6898.10	6900.80	2.70	20.50	10.00	20.00
MKTF-30	8/23/2019	ND	12.18	NA	6885.92	6898.10	6900.80	2.70	20.50	10.00	20.00
MKTF-30	10/22/2019	ND	13.12	NA	6884.98	6898.10	6900.80	2.70	20.49	10.00	20.00
MKTF-30	2/26/2020	ND	12.61	NA	6885.49	6898.10	6900.80	2.70	20.50	10.00	20.00
MKTF-30	6/26/2020	ND	13.49	NA	6884.61	6898.10	6900.80	2.70	20.50	10.00	20.00
MKTF-30	9/15/2020	ND	13.96	NA	6884.14	6898.10	6900.80	2.70	20.52	10.00	20.00
MKTF-30	11/10/2020	ND	14.17	NA	6883.93	6898.10	6900.80	2.70	20.52	10.00	20.00
MKTF-30	12/04/2020	ND	14.06	NA	6884.04	6898.10	6900.80	2.70	20.52	10.00	20.00
MKTF-31	11/14/2018	ND	5.83	NA	6898.43	6904.26	6906.87	2.61	16.69	6.00	21.00
MKTF-31	2/14/2019	ND	5.64	NA	6898.62	6904.26	6906.87	2.61	20.20	6.00	21.00
MKTF-31	5/6/2019	ND	5.11	NA	6899.15	6904.26	6906.87	2.61	20.20	6.00	21.00
MKTF-31	8/23/2019	ND	5.69	NA	6898.57	6904.26	6906.87	2.61	16.74	6.00	21.00
MKTF-31	10/22/2019	ND	6.03	NA	6898.23	6904.26	6906.87	2.61	16.69	6.00	21.00
MKTF-31	2/24/2020	ND	5.49	NA	6898.77	6904.26	6906.87	2.61	20.20	6.00	21.00
MKTF-31	6/26/2020	ND	5.64	NA	6898.62	6904.26	6906.87	2.61	20.20	6.00	21.00
MKTF-31	9/15/2020	ND	6.14	NA	6898.12	6904.26	6906.87	2.61	16.73	6.00	21.00
MKTF-31	11/10/2020	ND	6.18	NA	6898.08	6904.26	6906.87	2.61	16.73	6.00	21.00
MKTF-31	12/04/2020	ND	6.12	NA	6898.14	6904.26	6906.87	2.61	16.76	6.00	21.00
MKTF-32	11/14/2018	ND	11.43	NA	6897.01	6908.44	6911.11	2.67	25.08	9.00	24.00
MKTF-32	2/13/2019	ND	10.82	NA	6897.62	6908.44	6911.11	2.67	25.08	9.00	24.00
MKTF-32	5/7/2019	ND	10.58	NA	6897.86	6908.44	6911.11	2.67	25.08	9.00	24.00
MKTF-32	8/20/2019	ND	11.36	NA	6897.08	6908.44	6911.11	2.67	25.10	9.00	24.00
MKTF-32	10/23/2019	ND	11.34	NA	6897.10	6908.44	6911.11	2.67	25.08	9.00	24.00
MKTF-32	2/26/2020	ND	11.11	NA	6897.33	6908.44	6911.11	2.67	25.08	9.00	24.00
MKTF-32	6/29/2020	ND	11.58	NA	6896.86	6908.44	6911.11	2.67	25.08	9.00	24.00
MKTF-32	9/14/2020	ND	11.91	NA	6896.53	6908.44	6911.11	2.67	24.79	9.00	24.00
MKTF-32	11/10/2020	ND	11.64	NA	6896.80	6908.44	6911.11	2.67	24.79	9.00	24.00
MKTF-32	12/04/2020	ND	11.58	NA	6896.86	6908.44	6911.11	2.67	25.15	9.00	24.00
MKTF-33	11/27/2018	ND	19.56	NA	6917.03	6936.59	6939.75	3.16	30.06	20.00	30.00
MKTF-33	3/25/2019	ND	18.84	NA	6917.75	6936.59	6939.75	3.16	30.04	20.00	30.00
MKTF-33	5/9/2019	ND	18.88	NA	6917.71	6936.59	6939.75	3.16	30.04	20.00	30.00
MKTF-33	8/20/2019	ND	19.19	NA	6917.40	6936.59	6939.75	3.16	30.07	20.00	30.00
MKTF-33	10/24/2019	ND	19.34	NA	6917.25	6936.59	6939.75	3.16	30.06	20.00	30.00
MKTF-33	2/27/2020	ND	19.55	NA	6917.04	6936.59	6939.75	3.16	30.04	20.00	30.00
MKTF-33	6/29/2020	ND	18.01	NA	6918.58	6936.59	6939.75	3.16	30.04	20.00	30.00

TABLE 3-1 FLUID LEVEL MONITORING (2020 and 5 Previous Data Points)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location	Date Measured	Depth to Product (ft-bgs)	Depth to Water (ft-bgs)	Product Thickness (ft)	Water Elevation (ft-msl)	Ground Surface Elevation (ft-msl)	Measuring Point Elevation (ft-msl)	Well Casing Height (ft)	Total Depth (ft-bgs)	Depth to Top Screen (ft-bgs)	Depth to Bottom Screen (ft-bgs)
MKTF-33	9/14/2020	18.45	24.86	6.41	6911.73	6936.59	6939.75	3.16	29.99	20.00	30.00
MKTF-33	11/10/2020	18.49	24.65	6.16	6911.94	6936.59	6939.75	3.16	29.99	20.00	30.00
MKTF-33	12/04/2020	18.53	24.61	6.08	6911.98	6936.59	6939.75	3.16	30.41	20.00	30.00
MKTF-34	3/25/2019	ND	14.02	NA	6928.40	6942.42	6945.35	2.93	24.75	9.00	24.00
MKTF-34	5/9/2019	ND	15.16	NA	6927.26	6942.42	6945.35	2.93	24.75	9.00	24.00
MKTF-34	8/19/2019	ND	14.77	NA	6927.65	6942.42	6945.35	2.93	24.77	9.00	24.00
MKTF-34	10/29/2019	ND	15.10	NA	6927.32	6942.42	6945.35	2.93	24.77	9.00	24.00
MKTF-34	11/12/2019	ND	15.13	NA	6927.29	6942.42	6945.35	2.93	24.77	9.00	24.00
MKTF-34	2/05/2020	ND	14.85	NA	6927.57	6942.42	6945.35	2.93	24.77	9.00	24.00
MKTF-34	6/29/2020	16.11	16.13	0.02	6926.29	6942.42	6945.35	2.93	24.77	9.00	24.00
MKTF-34	9/14/2020	ND	16.16	NA	6926.26	6942.42	6945.35	2.93	24.83	9.00	24.00
MKTF-34	11/10/2020	ND	16.15	NA	6926.27	6942.42	6945.35	2.93	24.83	9.00	24.00
MKTF-34	12/04/2020	15.98	15.99	0.01	6926.43	6942.42	6945.35	2.93	24.85	9.00	24.00
MKTF-35	5/16/2019	ND	8.74	NA	6943.16	6951.90	6951.65	-0.25	16.70	6.00	16.00
MKTF-35	8/19/2019	ND	8.34	NA	6943.56	6951.90	6951.65	-0.25	16.73	6.00	16.00
MKTF-35	10/28/2019	ND	8.67	NA	6943.23	6951.90	6951.65	-0.25	16.70	6.00	16.00
MKTF-35	10/29/2019	ND	8.65	NA	6943.25	6951.90	6951.65	-0.25	16.70	6.00	16.00
MKTF-35	11/12/2019	ND	8.85	NA	6943.05	6951.90	6951.65	-0.25	16.70	6.00	16.00
MKTF-35	2/05/2020	ND	9.53	NA	6942.37	6951.90	6951.65	-0.25	16.70	6.00	16.00
MKTF-35	6/30/2020	ND	9.50	NA	6942.40	6951.90	6951.65	-0.25	16.70	6.00	16.00
MKTF-35	9/14/2020	ND	8.84	NA	6943.06	6951.90	6951.65	-0.25	16.48	6.00	16.00
MKTF-35	11/10/2020	ND	9.11	NA	6942.79	6951.90	6951.65	-0.25	16.48	6.00	16.00
MKTF-35	12/04/2020	9.27	9.28	0.01	6942.62	6951.90	6951.65	-0.25	16.64	6.00	16.00
MKTF-36	11/14/2019	7.53	10.00	2.47	NA	6950.67	6950.12	-0.39	16.00	5.00	15.00
MKTF-36	11/15/2019	7.70	9.85	2.15	NA	6950.67	6950.12	-0.39	16.00	5.00	15.00
MKTF-36	11/19/2019	8.19	9.37	1.18	NA	6950.67	6950.12	-0.39	16.00	5.00	15.00
MKTF-36	11/21/2019	8.39	9.17	0.78	NA	6950.67	6950.12	-0.39	16.00	5.00	15.00
MKTF-36	12/2/2019	8.64	9.34	0.70	NA	6950.67	6950.12	-0.39	16.00	5.00	15.00
MKTF-36	2/03/2020	8.28	8.83	0.55	6941.68	6950.67	6950.12	-0.39	16.00	5.00	15.00
MKTF-36	6/30/2020	8.43	8.64	0.21	6941.87	6950.67	6950.12	-0.39	16.00	5.00	15.00
MKTF-36	9/14/2020	ND	8.26	NA	6942.25	6950.67	6950.12	-0.39	15.97	5.00	15.00
MKTF-36	11/10/2020	8.37	8.42	0.05	6942.09	6950.67	6950.12	-0.39	15.97	5.00	15.00
MKTF-36	12/04/2020	8.49	8.56	0.07	6941.95	6950.67	6950.12	-0.39	15.97	5.00	15.00
MKTF-37	5/16/2019	9.30	9.38	0.08	6949.69	6959.07	6958.87	-0.20	24.80	4.00	24.00
MKTF-37	8/23/2019	9.05	9.07	0.02	6950	6959.07	6958.87	-0.20	24.79	4.00	24.00
MKTF-37	10/28/2019	9.50	9.53	0.03	6949.54	6959.07	6958.87	-0.20	24.80	4.00	24.00
MKTF-37	10/29/2019	9.37	9.40	0.03	6949.67	6959.07	6958.87	-0.20	24.80	4.00	24.00
MKTF-37	11/12/2019	9.72	9.76	0.04	6949.31	6959.07	6958.87	-0.20	24.80	4.00	24.00
MKTF-37	2/03/2020	9.97	10.09	0.12	6948.98	6959.07	6958.87	-0.20	24.80	4.00	24.00
MKTF-37	6/30/2020	9.81	9.83	0.02	6949.24	6959.07	6958.87	-0.20	24.80	4.00	24.00
MKTF-37	9/14/2020	ND	8.96	NA	6950.11	6959.07	6958.87	-0.20	24.74	4.00	24.00
MKTF-37	11/10/2020	9.56	9.57	0.01	6949.50	6959.07	6958.87	-0.20	24.74	4.00	24.00
MKTF-37	12/04/2020	9.84	9.85	0.01	6949.22	6959.07	6958.87	-0.20	24.81	4.00	24.00
MKTF-38	3/26/2019	ND	11.58	NA	6943.59	6955.17	6954.89	-0.28	20.57	5.00	20.00
MKTF-38	5/14/2019	ND	8.94	NA	6946.23	6955.17	6954.89	-0.28	20.57	5.00	20.00
MKTF-38	6/27/2019	ND	9.03	NA	6946.14	6955.17	6954.89	-0.28	20.57	5.00	20.00
MKTF-38	8/20/2019	ND	9.05	NA	6946.12	6955.17	6954.89	-0.28	20.55	5.00	20.00
MKTF-38	12/3/2019	ND	9.78	NA	6945.39	6955.17	6954.89	-0.28	20.57	5.00	20.00
MKTF-38	3/04/2020	ND	9.89	NA	6945.28	6955.17	6954.89	-0.28	20.59	5.00	20.00
MKTF-38	6/26/2020	ND	9.66	NA	6945.51	6955.17	6954.89	-0.28	20.61	5.00	20.00
MKTF-38	9/14/2020	ND	8.83	NA	6946.34	6955.17	6954.89	-0.28	20.46	5.00	20.00
MKTF-38	11/10/2020	ND	9.40	NA	6945.77	6955.17	6954.89	-0.28	20.46	5.00	20.00
MKTF-38	12/04/2020	9.63	9.64	0.01	6945.53	6955.17	6954.89	-0.28	21.58	5.00	20.00
MKTF-39	11/19/2018	ND	9.22	NA	6944.75	6953.97	6953.75	-0.22	15.40	5.00	15.00
MKTF-39	3/28/2019	NA	NA	NA	NA	6953.97	6953.75	-0.22	15.42	5.00	15.00
MKTF-39	6/5/2019	ND	8.91	NA	6945.06	6953.97	6953.75	-0.22	15.42	5.00	15.00
MKTF-39	8/20/2019	ND	9.26	NA	6944.71	6953.97	6953.75	-0.22	15.42	5.00	15.00
MKTF-39	11/4/2019	ND	9.81	NA	6944.16	6953.97	6953.75	-0.22	15.40	5.00	15.00
MKTF-39	2/03/2020	ND	10.32	NA	6943.65	6953.97	6953.75	-0.22	15.42	5.00	15.00
MKTF-39	6/26/2020	ND	9.85	NA	6944.12	6953.97	6953.75	-0.22	15.22	5.00	15.00
MKTF-39	9/15/2020	ND	9.80	NA	6944.17	6953.97	6953.75	-0.22	14.41	5.00	15.00
MKTF-39	11/10/2020	ND	10.27	NA	6943.70	6953.97	6953.75	-0.22	14.41	5.00	15.00
MKTF-39	12/04/2020	ND	10.37	NA	6943.60	6953.97	6953.75	-0.22	15.41	5.00	15.00
MKTF-40	11/14/2018	ND	10.66	NA	6880.69	6891.35	6894.33	2.98	20.64	5.00	20.00
MKTF-40	2/20/2019	ND	9.81	NA	6881.54	6891.35	6894.33	2.98	20.66	5.00	20.00
MKTF-40	5/6/2019	ND	9.38	NA	6881.97	6891.35	6894.33	2.98	20.66	5.00	20.00
MKTF-40	8/22/2019	ND	9.17	NA	6882.18	6891.35	6894.33	2.98	20.56	5.00	20.00
MKTF-40	10/22/2019	ND	10.06	NA	6881.29	6891.35	6894.33	2.98	20.64	5.00	20.00
MKTF-40	2/27/2020	ND	10.25	NA	6881.10	6891.35	6894.33	2.98	20.66	5.00	20.00
MKTF-40	6/26/2020	ND	9.77	NA	6881.58	6891.35	6894.33	2.98	20.66	5.00	20.00
MKTF-40	9/15/2020	ND	10.41	NA	6880.94	6891.35	6894.33	2.98	20.68	5.00	20.00
MKTF-40	11/10/2020	ND	10.73	NA	6880.62	6891.35	6894.33	2.98	20.68	5.00	20.00
MKTF-40	12/04/2020	ND	11.01	NA	6880.34	6891.35	6894.33	2.98	20.69	5.00	20.00
MKTF-41	11/14/2018	ND	17.98	NA	6873.13	6891.11	6893.64	2.53	37.18	22.00	37.00
MKTF-41	2/13/2019	ND	17.57	NA	6873.54	6891.11	6893.64	2.53	37.57	22.00	37.00
MKTF-41	5/7/2019	ND	16.99	NA	6874.12	6891.11	6893.64	2.53	37.57	22.00	37.00
MKTF-41	8/22/2019	ND	17.02	NA	6874.09	6891.11	6893.64	2.53	37.21	22.00	37.00
MKTF-41	10/23/2019	ND	17.49	NA	6873.62	6891.11	6893.64	2.53	37.18	22.00	37.00
MKTF-41	2/26/2020	ND	17.62	NA	6873.49	6891.11	6893.64	2.53	37.57	22.00	37.00
MKTF-41	6/29/2020	ND	17.24	NA	6873.87	6891.11	6893.64	2.53	37.57	22.00	37.00
MKTF-41	9/14/2020	ND	18.19	NA	6872.92	6891.11	6893.64	2.53	37.13	22.00	37.00
MKTF-41	11/10/2020	ND	18.48	NA	6872.63	6891.11	6893.64	2.53	37.13	22.00	37.00
MKTF-41	12/04/2020	ND	18.37	NA	6872.74	6891.11	6893.64	2.53	37.27	22.00	37.00
MKTF-42	11/14/2018	ND	14.41	NA	6876.01	6890.42	6892.95	2.53	30.65	10.00	30.00
MKTF-42	2/13/2019	ND	14.65	NA	6875.77	6890.42	6892.95	2.53	30.62	10.00	30.00
MKTF-42	5/7/2019	ND	14.15	NA	6876.27	6890.42	6892.95	2.53	30.62	10.00	30.00
MKTF-42	8/22/2019	ND	13.87	NA	6876.55	6890.42	6892.95	2.53	30.67	10.00	30.00
MKTF-42	10/23/2019	ND	13.99	NA	6876.43	6890.42	6892.95	2.53	30.65	10.00	30.00
MKTF-42	2/26/2020	ND	14.26	NA	6876.16	6890.42	6892.95	2.53	30.62	10.00	30.00
MKTF-42	6/30/2020	ND	13.72	NA	6876.70	6890.42	6892.95	2.53	30.62	10.00	30.00
MKTF-42	9/14/2020	ND	13.82	NA	6876.60	6890.42	6892.95	2.53	30.57	10.00	30.00
MKTF-42	11/10/2020	ND	12.77	NA	6877.65	6890.42	6892.95	2.53	30.57	10.00	30.00
MKTF-42	12/04/2020	ND	13.88	NA	6876.54	6890.42	6892.95	2.53	30.42	10.00	30.00
MKTF-43	11/14/2018	ND	2.64	NA	6871.48	6874.12	6876.90	2.78	12.60	2.00	12.00

TABLE 3-1 FLUID LEVEL MONITORING (2020 and 5 Previous Data Points)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location	Date Measured	Depth to Product (ft-bgs)	Depth to Water (ft-bgs)	Product Thickness (ft)	Water Elevation (ft-msl)	Ground Surface Elevation (ft-msl)	Measuring Point Elevation (ft-msl)	Well Casing Height (ft)	Total Depth (ft-bgs)	Depth to Top Screen (ft-bgs)	Depth to Bottom Screen (ft-bgs)
MKTF-43	2/13/2019	ND	3.21	NA	6870.91	6874.12	6876.90	2.78	12.65	2.00	12.00
MKTF-43	5/8/2019	ND	1.19	NA	6872.93	6874.12	6876.90	2.78	12.65	2.00	12.00
MKTF-43	8/22/2019	ND	0.89	NA	6873.23	6874.12	6876.90	2.78	12.63	2.00	12.00
MKTF-43	10/24/2019	ND	1.56	NA	6872.56	6874.12	6876.90	2.78	12.60	2.00	12.00
MKTF-43	2/26/2020	ND	3.55	NA	6870.57	6874.12	6876.90	2.78	12.65	2.00	12.00
MKTF-43	6/30/2020	ND	2.72	NA	6871.40	6874.12	6876.90	2.78	12.65	2.00	12.00
MKTF-43	9/14/2020	ND	3.67	NA	6870.45	6874.12	6876.90	2.78	13.44	2.00	12.00
MKTF-43	11/10/2020	ND	4.70	NA	6869.42	6874.12	6876.90	2.78	13.44	2.00	12.00
MKTF-43	12/04/2020	ND	5.34	NA	6868.78	6874.12	6876.90	2.78	14.14	2.00	12.00
MKTF-44	11/14/2018	ND	23.88	NA	6843.53	6867.41	6869.95	2.54	48.62	38.00	48.00
MKTF-44	2/13/2019	ND	30.85	NA	6836.56	6867.41	6869.95	2.54	48.61	38.00	48.00
MKTF-44	5/8/2019	ND	31.66	NA	6835.75	6867.41	6869.95	2.54	48.61	38.00	48.00
MKTF-44	8/22/2019	ND	28.42	NA	6838.99	6867.41	6869.95	2.54	48.66	38.00	48.00
MKTF-44	10/24/2019	ND	36.00	NA	6831.41	6867.41	6869.95	2.54	48.62	38.00	48.00
MKTF-44	3/04/2020	ND	27.80	NA	6839.61	6867.41	6869.95	2.54	48.61	38.00	48.00
MKTF-44	6/26/2020	ND	30.54	NA	6836.87	6867.41	6869.95	2.54	48.61	38.00	48.00
MKTF-44	9/14/2020	ND	25.46	NA	6841.95	6867.41	6869.95	2.54	49.41	38.00	48.00
MKTF-44	12/04/2020	ND	37.05	NA	6830.36	6867.41	6869.95	2.54	48.85	38.00	48.00
MKTF-45	11/14/2019	9.10	24.33	15.23	6924.30	6948.63	6949.59	0.96	29.28	--	--
MKTF-45	11/15/2019	9.32	23.61	14.29	6925.02	6948.63	6949.59	0.96	29.28	--	--
MKTF-45	11/19/2019	9.88	21.79	11.91	6926.84	6948.63	6949.59	0.96	29.28	--	--
MKTF-45	11/21/2019	10.04	20.94	10.90	6927.69	6948.63	6949.59	0.96	29.28	--	--
MKTF-45	12/2/2019	11.42	17.99	6.57	6930.64	6948.63	6949.59	0.96	29.28	--	--
MKTF-45	2/03/2020	8.64	17.66	9.02	6930.97	6948.63	6949.59	0.96	29.28	--	--
MKTF-45	6/30/2020	10.12	18.12	8.00	6930.51	6948.63	6949.59	0.96	29.28	--	--
MKTF-45	9/14/2020	12.18	17.47	5.29	6931.16	6948.63	6949.59	0.96	36.49	--	--
MKTF-45	11/10/2020	11.98	13.80	1.82	6934.83	6948.63	6949.59	0.96	36.49	--	--
MKTF-45	12/04/2020	11.70	13.55	1.85	6935.08	6948.63	6949.59	0.96	29.49	--	--
MKTF-46	10/29/2019	ND	7.41	NA	NA	6954.73	6957.60	2.87	18.42	3.00	18.00
MKTF-46	11/12/2019	ND	7.59	NA	NA	6954.73	6957.60	2.87	18.42	3.00	18.00
MKTF-46	12/2/2019	ND	7.83	NA	NA	6954.73	6957.60	2.87	18.42	3.00	18.00
MKTF-46	3/05/2020	ND	8.06	NA	6946.67	6954.73	6957.60	2.87	15.13	3.00	18.00
MKTF-46	6/30/2020	ND	8.21	NA	6946.52	6954.73	6957.60	2.87	15.13	3.00	18.00
MKTF-46	9/14/2020	ND	7.31	NA	6947.42	6954.73	6957.60	2.87	22.42	3.00	18.00
MKTF-46	11/10/2020	ND	7.70	NA	6947.03	6954.73	6957.60	2.87	22.42	3.00	18.00
MKTF-46	12/04/2020	ND	7.90	NA	6946.83	6954.73	6957.60	2.87	18.43	3.00	18.00
MKTF-47	12/2/2019	ND	10.20	NA	NA	6959.51	6959.09	-0.42	14.72	4.00	14.00
MKTF-47	3/05/2020	ND	10.31	NA	6949.20	6959.51	6959.09	-0.42	14.42	4.00	14.00
MKTF-47	6/29/2020	ND	9.92	NA	6949.59	6959.51	6959.09	-0.42	14.42	4.00	14.00
MKTF-47	9/15/2020	8.95	8.96	0.01	6950.55	6959.51	6959.09	-0.42	14.73	4.00	14.00
MKTF-47	11/10/2020	ND	9.75	NA	6949.76	6959.51	6959.09	-0.42	14.73	4.00	14.00
MKTF-47	12/04/2020	10.00	10.01	0.01	6949.50	6959.51	6959.09	-0.42	14.73	4.00	14.00
MKTF-48	12/2/2019	ND	9.36	NA	NA	6959.24	6961.73	2.49	18.43	2.00	17.00
MKTF-48	3/03/2020	10.17	10.33	0.16	6948.91	6959.24	6961.73	2.49	15.51	2.00	17.00
MKTF-48	6/29/2020	ND	9.09	NA	6950.15	6959.24	6961.73	2.49	15.51	2.00	17.00
MKTF-48	9/15/2020	9.36	9.37	0.01	6949.87	6959.24	6961.73	2.49	17.42	2.00	17.00
MKTF-48	11/10/2020	9.91	10.02	0.11	6949.22	6959.24	6961.73	2.49	17.42	2.00	17.00
MKTF-48	12/04/2020	10.28	10.61	0.33	6948.63	6959.24	6961.73	2.49	18.45	2.00	17.00
MKTF-49	12/3/2019	ND	17.14	NA	NA	6944.00	6946.76	2.76	22.14	5.00	25.00
MKTF-49	3/04/2020	ND	17.51	NA	6926.49	6944.00	6946.76	2.76	25.24	5.00	25.00
MKTF-49	6/30/2020	ND	17.89	NA	6926.11	6944.00	6946.76	2.76	25.24	5.00	25.00
MKTF-49	9/15/2020	ND	17.57	NA	6926.43	6944.00	6946.76	2.76	22.20	5.00	25.00
MKTF-49	11/10/2020	ND	17.99	NA	6926.01	6944.00	6946.76	2.76	22.20	5.00	25.00
MKTF-49	12/04/2020	ND	18.05	NA	6925.95	6944.00	6946.76	2.76	22.21	5.00	25.00
MKTF-50	12/3/2019	ND	12.47	NA	NA	6939.68	6942.82	3.14	18.51	3.00	18.00
MKTF-50	3/04/2020	ND	12.73	NA	6926.95	6939.68	6942.82	3.14	22.86	3.00	18.00
MKTF-50	6/30/2020	ND	12.86	NA	6926.82	6939.68	6942.82	3.14	22.86	3.00	18.00
MKTF-50	9/15/2020	12.22	12.23	0.01	6927.45	6939.68	6942.82	3.14	19.50	3.00	18.00
MKTF-50	11/10/2020	ND	12.89	NA	6926.79	6939.68	6942.82	3.14	19.50	3.00	18.00
MKTF-50	12/04/2020	ND	13.03	NA	6926.65	6939.68	6942.82	3.14	18.49	3.00	18.00
NAPIS-1	11/8/2018	NA	NA	NA	NA	6913.62	6913.86	0.24	13.52	3.70	13.70
NAPIS-1	3/28/2019	NA	NA	NA	NA	6913.62	6913.86	0.24	13.52	3.70	13.70
NAPIS-1	5/28/2019	7.48	7.64	0.16	6905.98	6913.62	6913.86	0.24	13.29	3.70	13.70
NAPIS-1	8/22/2019	7.21	7.29	0.08	6906.33	6913.62	6913.86	0.24	13.29	3.70	13.70
NAPIS-1	10/21/2019	7.42	7.62	0.20	6906.00	6913.62	6913.86	0.24	13.29	3.70	13.70
NAPIS-1	3/04/2020	7.45	7.50	0.05	6906.12	6913.62	6913.86	0.24	13.29	3.70	13.70
NAPIS-1	7/01/2020	7.14	7.18	0.04	6906.44	6913.62	6913.86	0.24	13.29	3.70	13.70
NAPIS-1	9/15/2020	6.46	6.47	0.01	6907.15	6913.62	6913.86	0.24	13.34	3.70	13.70
NAPIS-1	11/10/2020	6.95	6.96	0.01	6906.66	6913.62	6913.86	0.24	13.34	3.70	13.70
NAPIS-1	12/07/2020	ND	7.20	NA	6906.42	6913.62	6913.86	0.24	13.52	3.70	13.70
NAPIS-2	11/8/2018	NA	NA	NA	NA	6913.40	6912.65	-0.75	15.27	4.20	14.20
NAPIS-2	3/28/2019	NA	NA	NA	NA	6913.40	6912.65	-0.75	15.27	4.20	14.20
NAPIS-2	5/28/2019	ND	10.29	NA	6903.11	6913.40	6912.65	-0.75	14.36	4.20	14.20
NAPIS-2	8/22/2019	ND	9.90	NA	6903.50	6913.40	6912.65	-0.75	14.36	4.20	14.20
NAPIS-2	10/21/2019	ND	10.15	NA	6903.25	6913.40	6912.65	-0.75	14.36	4.20	14.20
NAPIS-2	3/03/2020	ND	10.21	NA	6903.19	6913.40	6912.65	-0.75	14.36	4.20	14.20
NAPIS-2	7/01/2020	ND	9.87	NA	6903.53	6913.40	6912.65	-0.75	31.17	4.20	14.20
NAPIS-2	9/15/2020	ND	8.87	NA	6904.53	6913.40	6912.65	-0.75	15.35	4.20	14.20
NAPIS-2	11/10/2020	ND	9.26	NA	6904.14	6913.40	6912.65	-0.75	15.35	4.20	14.20
NAPIS-2	12/07/2020	ND	9.47	NA	6903.93	6913.40	6912.65	-0.75	15.36	4.20	14.20
NAPIS-3	11/8/2018	NA	NA	NA	NA	6913.38	6912.76	-0.62	32.13	25.40	30.40
NAPIS-3	3/28/2019	NA	NA	NA	NA	6913.38	6912.76	-0.62	32.13	25.40	30.40
NAPIS-3	5/28/2019	ND	11.19	NA	6902.19	6913.38	6912.76	-0.62	31.04	25.40	30.40
NAPIS-3	8/22/2019	ND	10.80	NA	6902.58	6913.38	6912.76	-0.62	31.04	25.40	30.40
NAPIS-3	10/21/2019	ND	10.64	NA	6902.74	6913.38	6912.76	-0.62	31.04	25.40	30.40
NAPIS-3	3/03/2020	ND	11.24	NA	6902.14	6913.38	6912.76	-0.62	31.04	25.40	30.40
NAPIS-3	7/01/2020	ND	10.72	NA	6902.66	6913.38	6912.76	-0.62	31.04	25.40	30.40
NAPIS-3	9/15/2020	ND	9.87	NA	6903.51	6913.38	6912.76	-0.62	32.12	25.40	30.40
NAPIS-3	11/10/2020	ND	10.09	NA	6903.29	6913.38	6912.76	-0.62	32.12	25.40	30.40
NAPIS-3	12/07/2020	ND	9.13	NA	6904.25	6913.38	6912.76	-0.62	32.12	25.40	30.40
OAPIS-1	11/19/2018	ND	9.53	NA	6904.84	6914.37	6916.73	2.36	25.42	16.00	26.00
OAPIS-1	3/28/2019	ND	9.07	NA	6905.30	6914.37	6916.73	2.36	23.64	16.00	26.00
OAPIS-1	5/8/2019	ND	9.73	NA	6904.64	6914.37	6916.73	2.36	23.64	16.00	26.00
OAPIS-1	8/22/2019	ND	8.73	NA	6905.64	6914.37	6916.73	2.36	25.50	16.00	26.00
OAPIS-1	10/21/2019	ND	9.08	NA	6905.29	6914.37	6916.73	2.36	25.42	16.00	26.00
OAPIS-1	3/03/2020	ND	10.20	NA	6904.17	6914.37	6916.73	2.36	23.64	16.00	26.00

TABLE 3-1 FLUID LEVEL MONITORING (2020 and 5 Previous Data Points)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location	Date Measured	Depth to Product (ft-bgs)	Depth to Water (ft-bgs)	Product Thickness (ft)	Water Elevation (ft-msl)	Ground Surface Elevation (ft-msl)	Measuring Point Elevation (ft-msl)	Well Casing Height (ft)	Total Depth (ft-bgs)	Depth to Top Screen (ft-bgs)	Depth to Bottom Screen (ft-bgs)
OAPIS-1	7/01/2020	ND	10.24	NA	6904.13	6914.37	6916.73	2.36	23.64	16.00	26.00
OAPIS-1	9/15/2020	ND	9.54	NA	6904.83	6914.37	6916.73	2.36	25.64	16.00	26.00
OAPIS-1	11/10/2020	ND	9.66	NA	6904.71	6914.37	6916.73	2.36	25.64	16.00	26.00
OAPIS-1	12/07/2020	ND	9.95	NA	6904.42	6914.37	6916.73	2.36	25.64	16.00	26.00
OW-14	11/6/2018	ND	19.72	NA	6904.83	6924.55	6926.65	2.10	44.42	35.00	45.00
OW-14	2/5/2019	ND	19.54	NA	6905.01	6924.55	6926.65	2.10	44.42	35.00	45.00
OW-14	5/1/2019	ND	19.35	NA	6905.20	6924.55	6926.65	2.10	44.42	35.00	45.00
OW-14	8/12/2019	NA	NA	NA	NA	6924.55	6926.65	2.10	44.68	35.00	45.00
OW-14	11/1/2019	NA	NA	NA	NA	6924.55	6926.65	2.10	44.42	35.00	45.00
OW-14	3/02/2020	NA	NA	NA	NA	6924.55	6926.65	2.10	44.42	35.00	45.00
OW-14	6/30/2020	ND	20.65	NA	6903.90	6924.55	6926.65	2.10	44.42	35.00	45.00
OW-14	9/14/2020	NA	NA	NA	NA	6924.55	6926.65	2.10	44.42	35.00	45.00
OW-14	12/07/2020	NA	22.30	NA	6902.25	6924.55	6926.65	2.10	44.42	35.00	45.00
OW-29	11/6/2018	ND	14.11	NA	6899.78	6913.89	6917.00	3.11	47.97	37.50	47.50
OW-29	2/5/2019	ND	13.81	NA	6900.08	6913.89	6917.00	3.11	47.97	37.50	47.50
OW-29	5/1/2019	ND	13.60	NA	6900.29	6913.89	6917.00	3.11	47.97	37.50	47.50
OW-29	8/12/2019	ND	14.05	NA	6899.84	6913.89	6917.00	3.11	49.29	37.50	47.50
OW-29	10/14/2019	ND	14.13	NA	6899.76	6913.89	6917.00	3.11	47.97	37.50	47.50
OW-29	2/24/2020	ND	13.37	NA	6900.52	6913.89	6917.00	3.11	47.97	37.50	47.50
OW-29	6/30/2020	ND	14.31	NA	6899.58	6913.89	6917.00	3.11	47.97	37.50	47.50
OW-29	9/14/2020	ND	14.46	NA	6899.43	6913.89	6917.00	3.11	47.94	37.50	47.50
OW-29	11/09/2020	ND	14.12	NA	6899.77	6913.89	6917.00	3.11	47.94	37.50	47.50
OW-29	12/07/2020	ND	14.04	NA	6899.85	6913.89	6917.00	3.11	47.94	37.50	47.50
OW-30	12/3/2018	ND	18.42	NA	6903.39	6921.81	6924.69	2.88	47.02	37.90	47.90
OW-30	3/27/2019	ND	18.25	NA	6903.56	6921.81	6924.69	2.88	47.02	37.90	47.90
OW-30	6/5/2019	ND	18.26	NA	6903.55	6921.81	6924.69	2.88	47.02	37.90	47.90
OW-30	8/12/2019	NA	NA	NA	NA	6921.81	6924.69	2.88	48.52	37.90	47.90
OW-30	11/1/2019	ND	NA	NA	NA	6921.81	6924.69	2.88	47.02	37.90	47.90
OW-30	3/02/2020	NA	NA	NA	NA	6921.81	6924.69	2.88	47.02	37.90	47.90
OW-30	6/30/2020	ND	19.45	NA	6902.36	6921.81	6924.69	2.88	47.02	37.90	47.90
OW-30	9/15/2020	ND	NA	NA	NA	6921.81	6924.69	2.88	47.02	37.90	47.90
OW-30	12/07/2020	ND	19.34	NA	6902.47	6921.81	6924.69	2.88	47.02	37.90	47.90
OW-50	11/7/2018	ND	13.62	NA	6899.01	6912.63	6914.21	1.58	62.42	48.00	63.00
OW-50	3/27/2019	ND	12.82	NA	6899.81	6912.63	6914.21	1.58	62.42	48.00	63.00
OW-50	5/1/2019	ND	12.81	NA	6899.82	6912.63	6914.21	1.58	62.42	48.00	63.00
OW-50	8/16/2019	ND	13.16	NA	6899.47	6912.63	6914.21	1.58	62.42	48.00	63.00
OW-50	10/15/2019	ND	13.34	NA	6899.29	6912.63	6914.21	1.58	62.42	48.00	63.00
OW-50	3/02/2020	ND	12.47	NA	6900.16	6912.63	6914.21	1.58	62.42	48.00	63.00
OW-50	6/30/2020	ND	13.03	NA	6899.60	6912.63	6914.21	1.58	62.42	48.00	63.00
OW-50	9/14/2020	ND	13.53	NA	6899.10	6912.63	6914.21	1.58	37.44	48.00	63.00
OW-50	11/09/2020	ND	13.29	NA	6899.34	6912.63	6914.21	1.58	37.44	48.00	63.00
OW-50	12/07/2020	ND	13.14	NA	6899.49	6912.63	6914.21	1.58	37.44	48.00	63.00
OW-52	11/7/2018	ND	13.29	NA	6893.24	6906.53	6907.68	1.15	76.59	64.00	79.00
OW-52	3/27/2019	ND	12.82	NA	6893.71	6906.53	6907.68	1.15	76.59	64.00	79.00
OW-52	5/1/2019	ND	12.59	NA	6893.94	6906.53	6907.68	1.15	76.59	64.00	79.00
OW-52	8/16/2019	ND	13.06	NA	6893.47	6906.53	6907.68	1.15	76.59	64.00	79.00
OW-52	10/15/2019	ND	13.25	NA	6893.28	6906.53	6907.68	1.15	76.59	64.00	79.00
OW-52	3/02/2020	ND	12.56	NA	6893.97	6906.53	6907.68	1.15	76.59	64.00	79.00
OW-52	6/30/2020	ND	13.05	NA	6893.48	6906.53	6907.68	1.15	76.59	64.00	79.00
OW-52	9/14/2020	ND	13.41	NA	6893.12	6906.53	6907.68	1.15	39.28	64.00	79.00
OW-52	10/09/2020	ND	13.37	NA	6893.16	6906.53	6907.68	1.15	39.28	64.00	79.00
OW-52	12/07/2020	ND	13.27	NA	6893.26	6906.53	6907.68	1.15	39.28	64.00	79.00
OW-53	11/6/2018	ND	Dry	NA	Dry	6911.93	6914.38	2.45	31.45	16.00	31.00
OW-53	2/6/2019	ND	Dry	NA	Dry	6911.93	6914.38	2.67	31.24	16.00	31.00
OW-53	5/2/2019	ND	Dry	NA	Dry	6911.93	6914.38	2.67	31.24	16.00	31.00
OW-53	8/21/2019	ND	Dry	NA	Dry	6911.93	6914.38	2.67	31.24	16.00	31.00
OW-53	10/15/2019	ND	Dry	NA	Dry	6911.93	6914.38	2.67	31.24	16.00	31.00
OW-53	3/02/2020	ND	Dry	NA	Dry	6911.93	6914.38	2.67	31.28	16.00	31.00
OW-53	6/30/2020	ND	Dry	NA	Dry	6911.93	6914.38	2.67	31.23	16.00	31.00
OW-53	9/14/2020	ND	Dry	NA	Dry	6911.93	6914.38	2.67	31.24	16.00	31.00
OW-53	11/09/2020	ND	Dry	NA	Dry	6911.93	6914.38	2.67	31.24	16.00	31.00
OW-53	12/07/2020	ND	Dry	NA	Dry	6911.93	6914.38	2.67	31.24	16.00	31.00
OW-54	11/6/2018	ND	15.34	NA	6901.02	6916.36	6918.92	2.56	28.50	13.00	28.00
OW-54	2/6/2019	ND	14.93	NA	6901.34	6916.36	6918.92	2.65	28.39	13.00	28.00
OW-54	5/2/2019	ND	14.87	NA	6901.40	6916.36	6918.92	2.65	28.39	13.00	28.00
OW-54	8/21/2019	ND	15.35	NA	6900.92	6916.36	6918.92	2.65	26.97	13.00	28.00
OW-54	10/15/2019	ND	15.44	NA	6900.83	6916.36	6918.92	2.65	28.41	13.00	28.00
OW-54	3/02/2020	ND	14.53	NA	6901.74	6916.36	6918.92	2.65	28.39	13.00	28.00
OW-54	6/30/2020	ND	15.10	NA	6901.17	6916.36	6918.92	2.65	28.39	13.00	28.00
OW-54	9/14/2020	ND	15.52	NA	6900.75	6916.36	6918.92	2.65	21.93	13.00	28.00
OW-54	10/09/2020	ND	15.27	NA	6901.00	6916.36	6918.92	2.65	21.93	13.00	28.00
OW-54	12/07/2020	ND	15.13	NA	6901.14	6916.36	6918.92	2.65	21.93	13.00	28.00
OW-55	11/6/2018	ND	15.48	NA	6905.53	6921.01	6923.25	2.24	28.66	13.00	28.00
OW-55	2/6/2019	ND	15.14	NA	6905.88	6921.01	6923.25	2.23	28.47	13.00	28.00
OW-55	5/2/2019	ND	15.15	NA	6905.87	6921.01	6923.25	2.23	28.47	13.00	28.00
OW-55	8/21/2019	ND	15.47	NA	6905.55	6921.01	6923.25	2.23	28.47	13.00	28.00
OW-55	10/15/2019	ND	15.50	NA	6905.52	6921.01	6923.25	2.23	28.67	13.00	28.00
OW-55	3/02/2020	ND	14.73	NA	6906.29	6921.01	6923.25	2.23	28.47	13.00	28.00
OW-55	6/30/2020	ND	15.19	NA	6905.83	6921.01	6923.25	2.23	28.47	13.00	28.00
OW-55	9/14/2020	ND	15.73	NA	6905.29	6921.01	6923.25	2.23	22.25	13.00	28.00
OW-55	10/09/2020	ND	15.47	NA	6905.55	6921.01	6923.25	2.23	22.25	13.00	28.00
OW-55	12/07/2020	ND	15.38	NA	6905.64	6921.01	6923.25	2.23	22.25	13.00	28.00
OW-56	11/6/2018	ND	11.66	NA	6906.13	6917.79	6920.18	2.39	16.19	6.00	16.00
OW-56	2/6/2019	ND	10.43	NA	6907.18	6917.79	6920.18	2.57	16.02	6.00	16.00
OW-56	5/2/2019	ND	9.93	NA	6907.68	6917.79	6920.18	2.57	16.02	6.00	16.00
OW-56	8/21/2019	ND	11.09	NA	6906.52	6917.79	6920.18	2.57	16.02	6.00	16.00
OW-56	10/15/2019	ND	11.81	NA	6905.80	6917.79	6920.18	2.57	16.01	6.00	16.00
OW-56	3/02/2020	ND	10.45	NA	6907.16	6917.79	6920.18	2.57	16.02	6.00	16.00
OW-56	6/30/2020	ND	11.76	NA	6905.85	6917.79	6920.18	2.57	16.02	6.00	16.00
OW-56	9/14/2020	ND	11.79	NA	6905.82	6917.79	6920.18	2.57	16.01	6.00	16.00
OW-56	11/09/2020	ND	11.64	NA	6905.97	6917.79	6920.18	2.57	16.01	6.00	16.00
OW-56	12/07/2020	ND	11.16	NA	6906.45	6917.79	6920.18	2.57	16.01	6.00	16.00
OW-57	11/29/2018	ND	17.84	NA	6912.80	6930.64	6933.10	2.46	25.89	15.00	25.00
OW-57	2/19/2019	ND	17.83	NA	6912.81	6930.64	6933.10	2.46	25.64	15.00	25.00
OW-57	5/15/2019	ND	17.56	NA	6913.08	6930.64	6933.10	2.46	25.64	15.00	25.00
OW-57	8/20/2019	ND	17.32	NA	6913.32	6930.64	6933.10	2.46	25.61	15.00	25.00

TABLE 3-1 FLUID LEVEL MONITORING (2020 and 5 Previous Data Points)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location	Date Measured	Depth to Product (ft-bgs)	Depth to Water (ft-bgs)	Product Thickness (ft)	Water Elevation (ft-msl)	Ground Surface Elevation (ft-msl)	Measuring Point Elevation (ft-msl)	Well Casing Height (ft)	Total Depth (ft-bgs)	Depth to Top Screen (ft-bgs)	Depth to Bottom Screen (ft-bgs)
OW-57	11/4/2019	ND	17.51	NA	6913.13	6930.64	6933.10	2.46	25.89	15.00	25.00
OW-57	3/04/2020	ND	17.51	NA	6913.13	6930.64	6933.10	2.46	25.64	15.00	25.00
OW-57	6/30/2020	ND	17.76	NA	6912.88	6930.64	6933.10	2.46	25.64	15.00	25.00
OW-57	9/14/2020	ND	18.04	NA	6912.60	6930.64	6933.10	2.46	25.63	15.00	25.00
OW-57	11/09/2020	ND	18.07	NA	6912.57	6930.64	6933.10	2.46	25.63	15.00	25.00
OW-57	12/07/2020	ND	18.18	NA	6912.46	6930.64	6933.10	2.46	25.93	15.00	25.00
OW-58	11/29/2018	ND	24.48	NA	6910.23	6934.71	6934.50	-0.21	47.71	38.00	48.00
OW-58	3/28/2019	ND	24.49	NA	6910.22	6934.71	6934.50	-0.21	47.51	38.00	48.00
OW-58	6/5/2019	ND	24.30	NA	6910.41	6934.71	6934.50	-0.21	47.51	38.00	48.00
OW-58	8/20/2019	ND	24.21	NA	6910.50	6934.71	6934.50	-0.21	47.70	38.00	48.00
OW-58	11/18/2019	ND	24.20	NA	6910.51	6934.71	6934.50	-0.21	47.71	38.00	48.00
OW-58	6/30/2020	ND	24.33	NA	6910.38	6934.71	6934.50	-0.21	47.71	38.00	48.00
OW-58	9/14/2020	ND	24.66	NA	6910.05	6934.71	6934.50	-0.21	48.21	38.00	48.00
OW-58	11/09/2020	ND	23.52	NA	6911.19	6934.71	6934.50	-0.21	48.21	38.00	48.00
OW-58	12/08/2020	ND	24.53	NA	6910.18	6934.71	6934.50	-0.21	48.16	38.00	48.00
OW-58A	3/05/2020	ND	23.23	NA	6909.75	6932.98	6935.88	2.90	33.10	--	--
OW-58A	6/30/2020	ND	23.60	NA	6909.38	6932.98	6935.88	2.90	44.40	--	--
OW-58A	9/15/2020	ND	23.97	NA	6909.01	6932.98	6935.88	2.90	33.10	--	--
OW-58A	11/09/2020	ND	21.41	NA	6911.57	6932.98	6935.88	2.90	34.01	--	--
OW-58A	12/08/2020	ND	23.81	NA	6909.17	6932.98	6935.88	2.90	33.48	--	--
OW-59	11/6/2018	ND	21.80	NA	6865.83	6887.63	6889.73	2.10	36.40	20.00	35.00
OW-59	2/13/2019	ND	21.64	NA	6865.83	6887.63	6889.73	2.26	36.04	20.00	35.00
OW-59	5/2/2019	ND	21.54	NA	6865.93	6887.63	6889.73	2.26	36.04	20.00	35.00
OW-59	8/21/2019	ND	21.76	NA	6865.71	6887.63	6889.73	2.26	36.26	20.00	35.00
OW-59	10/15/2019	ND	21.85	NA	6865.62	6887.63	6889.73	2.26	36.24	20.00	35.00
OW-59	3/03/2020	ND	21.27	NA	6866.20	6887.63	6889.73	2.26	36.24	20.00	35.00
OW-59	6/30/2020	ND	21.41	NA	6866.06	6887.63	6889.73	2.26	36.04	20.00	35.00
OW-59	9/14/2020	ND	21.80	NA	6865.67	6887.63	6889.73	2.26	36.26	20.00	35.00
OW-59	12/07/2020	ND	21.65	NA	6865.82	6887.63	6889.73	2.26	36.29	20.00	35.00
OW-60	11/6/2018	ND	13.80	NA	6877.26	6891.06	6893.51	2.45	43.25	25.00	45.00
OW-60	2/13/2019	ND	13.86	NA	6877.08	6891.06	6893.51	2.57	42.93	25.00	45.00
OW-60	5/2/2019	ND	13.98	NA	6876.96	6891.06	6893.51	2.57	42.93	25.00	45.00
OW-60	8/21/2019	ND	13.96	NA	6876.98	6891.06	6893.51	2.57	43.85	25.00	45.00
OW-60	10/15/2019	ND	13.84	NA	6877.10	6891.06	6893.51	2.57	43.13	25.00	45.00
OW-60	3/03/2020	ND	13.57	NA	6877.37	6891.06	6893.51	2.57	42.93	25.00	45.00
OW-60	6/30/2020	ND	13.93	NA	6877.01	6891.06	6893.51	2.57	42.93	25.00	45.00
OW-60	9/14/2020	ND	14.00	NA	6876.94	6891.06	6893.51	2.57	43.13	25.00	45.00
OW-60	11/09/2020	ND	13.78	NA	6877.16	6891.06	6893.51	2.57	43.13	25.00	45.00
OW-60	12/07/2020	ND	13.98	NA	6876.96	6891.06	6893.51	2.57	43.13	25.00	45.00
OW-61	11/29/2018	15.29	19.34	4.05	NA	6960.91	6963.57	2.66	29.34	8.00	28.00
OW-61	2/19/2019	15.41	19.50	4.09	NA	6960.91	6963.57	2.59	29.41	8.00	28.00
OW-61	5/15/2019	15.03	18.54	3.51	NA	6960.91	6963.57	2.59	29.41	8.00	28.00
OW-61	8/20/2019	14.83	17.56	2.73	NA	6960.91	6963.57	2.59	29.11	8.00	28.00
OW-61	11/4/2019	14.95	18.04	3.09	NA	6960.91	6963.57	2.59	29.41	8.00	28.00
OW-61	3/04/2020	15.69	18.50	2.81	6942.48	6960.91	6963.57	2.59	29.41	8.00	28.00
OW-61	6/29/2020	14.58	15.45	0.87	6945.53	6960.91	6963.57	2.59	29.41	8.00	28.00
OW-61	9/15/2020	14.29	16.81	2.52	6944.17	6960.91	6963.57	2.59	29.26	8.00	28.00
OW-61	11/09/2020	15.63	16.99	1.36	6943.99	6960.91	6963.57	2.59	29.26	8.00	28.00
OW-61	12/08/2020	15.81	17.71	1.90	6943.27	6960.91	6963.57	2.59	28.74	8.00	28.00
OW-62	11/29/2018	ND	21.36	NA	6913.37	6934.73	6937.36	2.63	28.96	8.00	28.00
OW-62	2/19/2019	20.87	22.07	1.20	6912.41	6934.73	6937.36	2.88	28.59	8.00	28.00
OW-62	5/15/2019	20.52	21.12	0.60	6913.36	6934.73	6937.36	2.88	28.59	8.00	28.00
OW-62	8/20/2019	20.98	21.41	0.43	6913.07	6934.73	6937.36	2.88	28.59	8.00	28.00
OW-62	11/18/2019	20.84	21.46	0.62	6913.02	6934.73	6937.36	2.88	28.59	8.00	28.00
OW-62	3/10/2020	20.70	21.28	0.58	6913.20	6934.73	6937.36	2.88	28.59	8.00	28.00
OW-62	6/30/2020	20.74	21.03	0.29	6913.45	6934.73	6937.36	2.88	28.59	8.00	28.00
OW-62	9/15/2020	20.74	20.99	0.25	6913.49	6934.73	6937.36	2.88	29.17	8.00	28.00
OW-62	11/09/2020	20.82	21.12	0.30	6913.36	6934.73	6937.36	2.88	29.17	8.00	28.00
OW-62	12/08/2020	20.81	21.10	0.29	6913.38	6934.73	6937.36	2.88	28.78	8.00	28.00
OW-63	11/29/2018	ND	18.23	NA	NA	6932.34	6935.06	2.72	29.28	9.00	29.00
OW-63	2/19/2019	ND	17.74	NA	NA	6932.34	6935.06	3.00	29.00	9.00	29.00
OW-63	5/15/2019	ND	17.35	NA	NA	6932.34	6935.06	3.00	29.00	9.00	29.00
OW-63	8/19/2019	ND	17.12	NA	NA	6932.34	6935.06	3.00	29.20	9.00	29.00
OW-63	11/18/2019	ND	17.30	NA	NA	6932.34	6935.06	3.00	29.00	9.00	29.00
OW-63	3/04/2020	ND	17.41	NA	6914.65	6932.34	6935.06	3.00	29.00	9.00	29.00
OW-63	6/29/2020	ND	17.46	NA	6914.60	6932.34	6935.06	3.00	29.00	9.00	29.00
OW-63	9/14/2020	ND	17.73	NA	6914.33	6932.34	6935.06	3.00	29.05	9.00	29.00
OW-63	11/09/2020	ND	17.85	NA	6914.21	6932.34	6935.06	3.00	29.05	9.00	29.00
OW-63	12/08/2020	ND	17.97	NA	6914.09	6932.34	6935.06	3.00	29.22	9.00	29.00
OW-64	11/29/2018	5.73	5.78	0.05	NA	6945.07	6947.40	2.33	25.02	4.00	24.00
OW-64	2/19/2019	4.23	4.25	0.02	NA	6945.07	6947.40	2.77	24.86	4.00	24.00
OW-64	5/15/2019	ND	4.06	NA	NA	6945.07	6947.40	2.77	24.86	4.00	24.00
OW-64	8/19/2019	ND	4.33	NA	NA	6945.07	6947.40	2.77	24.58	4.00	24.00
OW-64	11/18/2019	ND	5.63	NA	NA	6945.07	6947.40	2.77	24.58	4.00	24.00
OW-64	3/04/2020	ND	4.73	NA	6939.90	6945.07	6947.40	2.77	24.86	4.00	24.00
OW-64	6/30/2020	ND	5.58	NA	6939.05	6945.07	6947.40	2.77	24.86	4.00	24.00
OW-64	9/14/2020	ND	5.18	NA	6939.45	6945.07	6947.40	2.77	24.58	4.00	24.00
OW-64	11/09/2020	ND	5.41	NA	6939.22	6945.07	6947.40	2.77	24.58	4.00	24.00
OW-64	12/07/2020	ND	5.49	NA	6939.14	6945.07	6947.40	2.77	24.58	4.00	24.00
OW-65	8/16/2018	22.53	24.21	1.68	NA	6951.62	6954.05	2.43	39.23	17.00	37.00
OW-65	11/29/2018	21.62	29.37	7.75	NA	6951.62	6954.05	2.43	37.57	17.00	37.00
OW-65	2/19/2019	19.36	28.63	9.27	NA	6951.62	6954.05	2.88	37.12	17.00	37.00
OW-65	5/15/2019	20.59	29.33	8.74	NA	6951.62	6954.05	2.88	37.12	17.00	37.00
OW-65	8/20/2019	19.09	28.27	9.18	NA	6951.62	6954.05	2.88	38.78	17.00	37.00
OW-65	3/04/2020	20.95	27.20	6.25	6923.97	6951.62	6954.05	2.88	37.12	17.00	37.00
OW-65	6/29/2020	21.20	28.53	7.33	6922.64	6951.62	6954.05	2.88	37.12	17.00	37.00
OW-65	9/14/2020	21.82	27.88	6.06	6923.29	6951.62	6954.05	2.88	39.92	17.00	37.00
OW-65	11/09/2020	22.17	29.47	7.30	6921.70	6951.62	6954.05	2.88	39.92	17.00	37.00
OW-65	12/08/2020	22.91	29.07	6.16	6922.10	6951.62	6954.05	2.88	39.62	17.00	37.00
RW-1	11/7/2018	NA	NA	NA	NA	6942.86	6946.06	3.20	40.25	25.00	40.00
RW-1	3/28/2019	NA	NA	NA	NA	6942.86	6946.06	3.20	40.25	25.00	40.00
RW-1	5/8/2019	NA	NA	NA	NA	6942.86	6946.06	3.20	40.25	25.00	40.00
RW-1	8/16/2019	NA	NA	NA	NA	6942.86	6946.06	3.20	40.25	25.00	40.00
RW-1	11/1/2019	NA	NA	NA	NA	6942.86	6946.06	3.20	40.25	25.00	40.00
RW-1	3/04/2020	NA	NA	NA	NA	6942.86	6946.06	3.20	40.25	25.00	40.00
RW-1	6/30/2020	25.05	26.30	1.25	6916.56	6942.86	6946.06	3.20	39.84	25.00	40.00

TABLE 3-1 FLUID LEVEL MONITORING (2020 and 5 Previous Data Points)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location	Date Measured	Depth to Product (ft-bgs)	Depth to Water (ft-bgs)	Product Thickness (ft)	Water Elevation (ft-msl)	Ground Surface Elevation (ft-msl)	Measuring Point Elevation (ft-msl)	Well Casing Height (ft)	Total Depth (ft-bgs)	Depth to Top Screen (ft-bgs)	Depth to Bottom Screen (ft-bgs)
RW-1	9/19/2020	24.87	27.00	2.13	6915.86	6942.86	6946.06	3.20	40.25	25.00	40.00
RW-1	11/10/2020	26.30	27.13	0.83	6915.73	6942.86	6946.06	3.20	40.25	25.00	40.00
RW-1	12/08/2020	26.30	27.13	0.83	6915.73	6942.86	6946.06	3.20	40.25	25.00	40.00
RW-2	11/7/2018	NA	NA	NA	NA	6926.40	6928.53	2.13	37.87	26.10	36.10
RW-2	3/28/2019	NA	NA	NA	NA	6926.40	6928.53	2.13	37.87	26.10	36.10
RW-2	5/8/2019	NA	NA	NA	NA	6926.40	6928.53	2.13	37.87	26.10	36.10
RW-2	8/16/2019	NA	NA	NA	NA	6926.40	6928.53	2.13	37.87	26.10	36.10
RW-2	11/1/2019	NA	NA	NA	NA	6926.40	6928.53	2.13	37.87	26.10	36.10
RW-2	3/04/2020	NA	NA	NA	NA	6926.40	6928.53	2.13	37.87	26.10	36.10
RW-2	6/30/2020	18.53	18.87	0.34	6907.53	6926.40	6928.53	2.13	37.67	26.10	36.10
RW-2	9/19/2020	19.97	20.10	0.13	6906.30	6926.40	6928.53	2.13	37.87	26.10	36.10
RW-2	11/09/2020	19.96	20.15	0.19	6906.25	6926.40	6928.53	2.13	37.87	26.10	36.10
RW-2	12/08/2020	20.07	20.25	0.18	6906.15	6926.40	6928.53	2.13	37.87	26.10	36.10
RW-5	11/7/2018	NA	NA	NA	NA	6941.53	6943.57	2.04	37.47	29.50	39.50
RW-5	3/28/2019	NA	NA	NA	NA	6941.53	6943.57	2.04	37.47	29.50	39.50
RW-5	5/8/2019	NA	NA	NA	NA	6941.53	6943.57	2.04	37.47	29.50	39.50
RW-5	8/16/2019	NA	NA	NA	NA	6941.53	6943.57	2.04	37.47	29.50	39.50
RW-5	11/1/2019	NA	NA	NA	NA	6941.53	6943.57	2.04	37.47	29.50	39.50
RW-5	3/04/2020	NA	NA	NA	NA	6941.53	6943.57	2.04	37.47	29.50	39.50
RW-5	6/30/2020	26.61	30.01	3.40	6911.52	6941.53	6943.57	2.04	37.55	29.50	39.50
RW-5	9/19/2020	27.55	30.77	3.22	6910.76	6941.53	6943.57	2.04	37.47	29.50	39.50
RW-5	11/09/2020	27.82	30.99	3.17	6910.54	6941.53	6943.57	2.04	37.47	29.50	39.50
RW-5	12/08/2020	31.11	37.47	6.36	6904.06	6941.53	6943.57	2.04	37.47	29.50	39.50
RW-6	8/16/2018	25.38	29.73	4.35	6912.23	6941.96	6944.01	2.05	38.80	28.50	38.50
RW-6	11/7/2018	NA	NA	NA	NA	6941.96	6944.01	2.05	38.80	28.50	38.50
RW-6	3/28/2019	NA	NA	NA	NA	6941.96	6944.01	2.05	38.80	28.50	38.50
RW-6	5/8/2019	NA	NA	NA	NA	6941.96	6944.01	2.05	38.80	28.50	38.50
RW-6	8/16/2019	NA	NA	NA	NA	6941.96	6944.01	2.05	38.80	28.50	38.50
RW-6	3/04/2020	NA	NA	NA	NA	6941.96	6944.01	2.05	38.80	28.50	38.50
RW-6	6/30/2020	26.82	28.45	1.63	6913.51	6941.96	6944.01	2.05	38.85	28.50	38.50
RW-6	9/19/2020	27.67	30.59	2.92	6911.37	6941.96	6944.01	2.05	38.80	28.50	38.50
RW-6	11/09/2020	27.93	31.00	3.07	6910.96	6941.96	6944.01	2.05	38.80	28.50	38.50
RW-6	12/08/2020	28.13	31.26	3.13	6910.70	6941.96	6944.01	2.05	38.80	28.50	38.50
SMW-2	8/10/2015	ND	22.54	NA	6859.09	6881.63	6883.97	2.34	50.46	34.31	54.31
SMW-2	9/9/2016	ND	22.50	NA	6859.13	6881.63	6883.97	2.34	50.46	34.31	54.31
SMW-2	9/11/2017	ND	22.45	NA	6859.18	6881.63	6883.97	2.34	50.46	34.31	54.31
SMW-2	8/15/2018	ND	22.15	NA	6859.48	6881.63	6883.97	2.34	50.46	34.31	54.31
SMW-2	8/19/2019	ND	22.96	NA	6858.67	6881.63	6883.97	2.34	50.46	34.31	54.31
SMW-2	6/30/2020	ND	21.91	NA	6859.72	6881.63	6883.97	2.34	50.46	34.31	54.31
SMW-2	9/14/2020	ND	22.36	NA	6859.27	6881.63	6883.97	2.34	50.77	34.31	54.31
SMW-4	9/6/2016	ND	27.11	NA	6850.52	6877.63	6879.52	1.89	67.79	51.70	71.70
SMW-4	9/11/2017	ND	27.44	NA	6850.19	6877.63	6879.52	1.89	67.79	51.70	71.70
SMW-4	8/15/2018	ND	27.15	NA	6850.48	6877.63	6879.52	1.89	67.79	51.70	71.70
SMW-4	12/6/2018	ND	27.36	NA	6850.27	6877.63	6879.52	1.89	67.79	51.70	71.70
SMW-4	8/13/2019	ND	27.21	NA	6850.42	6877.63	6879.52	1.89	67.79	51.70	71.70
SMW-4	6/30/2020	ND	27.28	NA	6850.35	6877.63	6879.52	1.89	67.79	51.70	71.70
SMW-4	9/14/2020	ND	27.26	NA	6850.37	6877.63	6879.52	1.89	61.01	51.70	71.70
STP1-NW	11/19/2018	NA	NA	NA	NA	6904.50	6904.47	-0.03	49.81	20.00	50.00
STP1-NW	2/13/2019	ND	20.38	NA	6884.12	6904.50	6904.47	-0.03	50.03	20.00	50.00
STP1-NW	5/8/2019	ND	19.57	NA	6884.93	6904.50	6904.47	-0.03	50.03	20.00	50.00
STP1-NW	8/21/2019	ND	20.82	NA	6883.68	6904.50	6904.47	-0.03	50.03	20.00	50.00
STP1-NW	10/22/2019	ND	20.79	NA	6883.71	6904.50	6904.47	-0.03	50.03	20.00	50.00
STP1-NW	3/03/2020	ND	20.30	NA	6884.20	6904.50	6904.47	-0.03	50.03	20.00	50.00
STP1-NW	6/30/2020	ND	20.70	NA	6883.80	6904.50	6904.47	-0.03	50.03	20.00	50.00
STP1-NW	12/08/2020	ND	20.81	NA	6883.69	6904.50	6904.47	-0.03	50.31	20.00	50.00
STP1-SW	11/19/2018	NA	NA	NA	NA	6912.40	6912.38	-0.02	29.12	15.00	30.00
STP1-SW	2/13/2019	NA	NA	NA	NA	6912.40	6912.38	-0.02	29.12	15.00	30.00
STP1-SW	5/8/2019	NA	NA	NA	NA	6912.40	6912.38	-0.02	29.12	15.00	30.00
STP1-SW	8/21/2019	NA	NA	NA	NA	6912.40	6912.38	-0.02	29.12	15.00	30.00
STP1-SW	10/22/2019	NA	NA	NA	NA	6912.40	6912.38	-0.02	29.12	15.00	30.00
STP1-SW	3/03/2020	NA	NA	NA	NA	6912.40	6912.38	-0.02	29.12	15.00	30.00
STP1-SW	12/08/2020	NA	29.25	NA	6883.15	6912.40	6912.38	-0.02	29.27	15.00	30.00
Sonsela Aquifer											
BW-1C	8/10/2015	ND	9.82	NA	6873.35	6883.17	6885.68	2.51	142.78	125.00	135.00
BW-1C	9/8/2016	ND	10.04	NA	6873.13	6883.17	6885.68	2.51	142.78	125.00	135.00
BW-1C	9/13/2017	ND	10.09	NA	6873.08	6883.17	6885.68	2.51	142.78	125.00	135.00
BW-1C	8/15/2018	ND	10.39	NA	6872.78	6883.17	6885.68	2.51	142.78	125.00	135.00
BW-1C	8/14/2019	ND	9.88	NA	6873.29	6883.17	6885.68	2.51	142.78	125.00	135.00
BW-1C	9/14/2020	ND	11.38	NA	6871.79	6883.17	6885.68	2.51	142.78	125.00	135.00
BW-2C	8/10/2015	ND	18.16	NA	6854.74	6872.90	6875.30	2.40	150.44	139.50	149.50
BW-2C	9/8/2016	ND	18.23	NA	6854.67	6872.90	6875.30	2.40	150.44	139.50	149.50
BW-2C	9/13/2017	ND	18.50	NA	6854.40	6872.90	6875.30	2.40	150.44	139.50	149.50
BW-2C	8/15/2018	ND	18.45	NA	6854.45	6872.90	6875.30	2.40	150.44	139.50	149.50
BW-2C	8/14/2019	ND	18.80	NA	6854.10	6872.90	6875.30	2.40	150.44	139.50	149.50
BW-2C	9/14/2020	ND	18.92	NA	6853.98	6872.90	6875.30	2.40	146.70	139.50	149.50
BW-3C	8/10/2015	ND	5.52	NA	6870.20	6875.72	6877.95	2.23	152.32	144.50	154.50
BW-3C	9/8/2016	ND	6.07	NA	6869.65	6875.72	6877.95	2.23	152.32	144.50	154.50
BW-3C	9/13/2017	ND	5.57	NA	6870.15	6875.72	6877.95	2.23	152.32	144.50	154.50
BW-3C	8/15/2018	ND	5.95	NA	6869.77	6875.72	6877.95	2.23	152.32	144.50	154.50
BW-3C	8/14/2019	ND	5.63	NA	6870.09	6875.72	6877.95	2.23	152.32	144.50	154.50
BW-3C	9/14/2020	ND	6.29	NA	6869.43	6875.72	6877.95	2.23	147.97	144.50	154.50
BW-5C	11/13/2018	ND	0.86	NA	6873.36	6874.22	6876.85	2.63	73.72	64.30	74.30
BW-5C	3/27/2019	ND	-1.02	NA	6874.86	6874.22	6876.85	3.01	73.34	64.30	74.30
BW-5C	5/21/2019	ND	-1.41	NA	6875.25	6874.22	6876.85	3.01	73.34	64.30	74.30
BW-5C	8/15/2019	ND	-0.32	NA	6874.16	6874.22	6876.85	3.01	73.34	64.30	74.30
BW-5C	10/16/2019	ND	0.49	NA	6873.35	6874.22	6876.85	3.01	73.34	64.30	74.30
BW-5C	3/05/2020	ND	-0.21	NA	6874.05	6874.22	6876.85	3.01	73.34	64.30	74.30
BW-5C	6/26/2020	ND	0.37	NA	6873.47	6874.22	6876.85	3.01	64.34	64.30	74.30
BW-5C	9/14/2020	ND	1.35	NA	6872.49	6874.22	6876.85	3.01	73.34	64.30	74.30
BW-5C	12/07/2020	ND	1.26	NA	6872.58	6874.22	6876.85	3.01	73.34	64.30	74.30
MW-1	9/7/2016	ND	5.52	NA	6871.11	6876.63	6878.12	1.49	129.34	117.72	127.72
MW-1	9/20/2017	ND	5.53	NA	6871.10	6876.63	6878.12	1.49	129.34	117.72	127.72
MW-1	8/15/2018	ND	6.26	NA	6870.37	6876.63	6878.12	1.49	129.34	117.72	127.72
MW-1	12/5/2018	ND	5.87	NA	6870.76	6876.63	6878.12	1.49	129.34	117.72	127.72
MW-1	8/12/2019	ND	5.45	NA	6871.18	6876.63	6878.12	1.49	129.34	117.72	127.72
MW-1	6/30/2020	ND	5.76	NA	6870.87	6876.63	6878.12	1.49	129.34	117.72	127.72

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 3-1 FLUID LEVEL MONITORING (2020 and 5 Previous Data Points)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location	Date Measured	Depth to Product (ft-bgs)	Depth to Water (ft-bgs)	Product Thickness (ft)	Water Elevation (ft-msl)	Ground Surface Elevation (ft-msl)	Measuring Point Elevation (ft-msl)	Well Casing Height (ft)	Total Depth (ft-bgs)	Depth to Top Screen (ft-bgs)	Depth to Bottom Screen (ft-bgs)
MW-1	9/14/2020	ND	6.23	NA	6870.40	6876.63	6878.12	1.49	133.81	117.72	127.72
MW-2	9/7/2016	ND	12.19	NA	6866.20	6878.39	6880.30	1.91	135.57	112.00	122.00
MW-2	9/20/2017	ND	13.73	NA	6864.66	6878.39	6880.30	1.91	135.57	112.00	122.00
MW-2	8/15/2018	ND	7.44	NA	6870.95	6878.39	6880.30	1.91	135.57	112.00	122.00
MW-2	12/5/2018	ND	14.72	NA	6863.67	6878.39	6880.30	1.91	135.57	112.00	122.00
MW-2	8/13/2019	ND	7.09	NA	6871.30	6878.39	6880.30	1.91	135.57	112.00	122.00
MW-2	6/30/2020	ND	7.38	NA	6871.01	6878.39	6880.30	1.91	135.57	112.00	122.00
MW-2	9/14/2020	ND	7.83	NA	6870.56	6878.39	6880.30	1.91	136.29	112.00	122.00
MW-4	9/7/2016	ND	5.64	NA	6874.25	6879.89	6881.63	1.74	119.98	101.00	121.00
MW-4	9/21/2017	ND	5.82	NA	6874.07	6879.89	6881.63	1.74	119.98	101.00	121.00
MW-4	8/15/2018	ND	5.97	NA	6873.92	6879.89	6881.63	1.74	119.98	101.00	121.00
MW-4	12/5/2018	ND	6.09	NA	6873.80	6879.89	6881.63	1.74	119.98	101.00	121.00
MW-4	8/13/2019	ND	5.26	NA	6874.63	6879.89	6881.63	1.74	119.98	101.00	121.00
MW-4	6/30/2020	ND	5.76	NA	6874.13	6879.89	6881.63	1.74	119.98	101.00	121.00
MW-4	9/14/2020	ND	6.26	NA	6873.63	6879.89	6881.63	1.74	124.16	101.00	121.00
MW-5	9/7/2016	ND	10.87	NA	6869.33	6880.20	6882.83	2.63	128.20	115.00	125.00
MW-5	9/11/2017	ND	8.59	NA	6871.61	6880.20	6882.83	2.63	128.20	115.00	125.00
MW-5	8/15/2018	ND	8.88	NA	6871.32	6880.20	6882.83	2.63	128.20	115.00	125.00
MW-5	12/6/2018	ND	14.17	NA	6866.03	6880.20	6882.83	2.63	128.20	115.00	125.00
MW-5	8/14/2019	ND	8.42	NA	6871.78	6880.20	6882.83	2.63	128.20	115.00	125.00
MW-5	6/30/2020	ND	8.83	NA	6871.37	6880.20	6882.83	2.63	128.20	115.00	125.00
MW-5	9/14/2020	ND	9.36	NA	6870.84	6880.20	6882.83	2.63	130.37	115.00	125.00
OW-01	11/7/2018	ND	1.03	NA	6865.29	6866.32	6866.62	0.30	94.25	89.30	99.30
OW-01	3/27/2019	ND	1.39	NA	6864.93	6866.32	6866.62	0.30	94.25	89.30	99.30
OW-01	5/21/2019	ND	1.43	NA	6864.89	6866.32	6866.62	0.30	94.25	89.30	99.30
OW-01	8/15/2019	ND	1.07	NA	6865.25	6866.32	6866.62	0.30	94.25	89.30	99.30
OW-01	10/16/2019	ND	1.15	NA	6865.17	6866.32	6866.62	0.30	94.25	89.30	99.30
OW-01	3/09/2020	ND	1.40	NA	6864.92	6866.32	6866.62	0.30	94.25	89.30	99.30
OW-01	6/30/2020	ND	1.30	NA	6865.02	6866.32	6866.62	0.30	94.25	89.30	99.30
OW-01	9/15/2020	ND	1.15	NA	6865.17	6866.32	6866.62	0.30	99.09	89.30	99.30
OW-01	12/07/2020	ND	1.45	NA	6864.87	6866.32	6866.62	0.30	99.09	89.30	99.30
OW-10	11/8/2018	ND	1.26	NA	6872.41	6873.67	6874.91	1.24	59.09	40.00	60.00
OW-10	3/27/2019	ND	-1.24	NA	6874.91	6873.67	6874.91	1.24	59.09	40.00	60.00
OW-10	5/22/2019	ND	-1.24	NA	6874.91	6873.67	6874.91	1.24	59.09	40.00	60.00
OW-10	8/15/2019	ND	-0.22	NA	6873.89	6873.67	6874.91	1.24	58.89	40.00	60.00
OW-10	10/17/2019	ND	1.09	NA	6872.58	6873.67	6874.91	1.24	59.09	40.00	60.00
OW-10	3/04/2020	ND	4.19	NA	6869.48	6873.67	6874.91	1.24	59.09	40.00	60.00
OW-10	6/30/2020	ND	5.51	NA	6868.16	6873.67	6874.91	1.24	59.09	40.00	60.00
OW-10	9/20/2020	ND	6.46	NA	6867.21	6873.67	6874.91	1.24	65.06	40.00	60.00
OW-10	10/09/2020	ND	6.46	NA	6867.21	6873.67	6874.91	1.24	65.06	40.00	60.00
OW-10	12/07/2020	ND	6.37	NA	6867.30	6873.67	6874.91	1.24	65.06	40.00	60.00
OW-11	8/10/2015	ND	17.84	NA	6904.21	6922.05	6923.51	1.46	64.33	43.00	65.00
OW-11	9/9/2016	ND	17.33	NA	6904.72	6922.05	6923.51	1.46	64.33	43.00	65.00
OW-11	9/18/2017	ND	16.62	NA	6905.43	6922.05	6923.51	1.46	64.33	43.00	65.00
OW-11	8/15/2018	ND	17.74	NA	6904.31	6922.05	6923.51	1.46	64.33	43.00	65.00
OW-11	8/20/2019	ND	16.24	NA	6905.81	6922.05	6923.51	1.46	64.33	43.00	65.00
OW-11	9/15/2020	ND	17.05	NA	6905.00	6922.05	6923.51	1.46	64.37	43.00	65.00
OW-12	8/13/2015	ND	46.30	NA	6893.27	6939.57	6940.69	1.12	127.73	117.80	137.80
OW-12	9/8/2016	ND	46.11	NA	6893.46	6939.57	6940.69	1.12	127.73	117.80	137.80
OW-12	9/19/2017	ND	45.62	NA	6893.95	6939.57	6940.69	1.12	127.73	117.80	137.80
OW-12	8/15/2018	ND	45.38	NA	6894.19	6939.57	6940.69	1.12	127.73	117.80	137.80
OW-12	6/30/2020	ND	Dry	NA	Dry	6939.57	6940.69	1.12	127.73	117.80	137.80
OW-12	9/14/2020	ND	45.33	NA	6894.24	6939.57	6940.69	1.12	130.08	117.80	137.80
OW-12	11/09/2020	ND	45.37	NA	6894.20	6939.57	6940.69	1.12	130.08	117.80	137.80
OW-13	11/6/2018	ND	19.58	NA	6899.37	6918.95	6920.07	1.12	98.03	78.20	98.20
OW-13	2/5/2019	ND	19.26	NA	6899.69	6918.95	6920.07	1.12	98.03	78.20	98.20
OW-13	5/1/2019	ND	18.88	NA	6900.07	6918.95	6920.07	1.12	98.03	78.20	98.20
OW-13	8/12/2019	ND	19.38	NA	6899.57	6918.95	6920.07	1.12	100.88	78.20	98.20
OW-13	10/14/2019	ND	19.62	NA	6899.33	6918.95	6920.07	1.12	98.03	78.20	98.20
OW-13	3/02/2020	ND	18.79	NA	6900.16	6918.95	6920.07	1.12	98.03	78.20	98.20
OW-13	6/30/2020	ND	21.04	NA	6897.91	6918.95	6920.07	1.12	98.03	78.20	98.20
OW-13	9/14/2020	ND	19.87	NA	6899.08	6918.95	6920.07	1.12	90.53	78.20	98.20
OW-13	11/09/2020	ND	19.26	NA	6899.69	6918.95	6920.07	1.12	90.53	78.20	98.20
OW-13	12/07/2020	ND	19.12	NA	6899.83	6918.95	6920.07	1.12	90.53	78.20	98.20

Abbreviations:
-- - unknown
ft - feet
ft-bgs - feet below ground surface
ft-msl - feet mean sea level
ND - not detected
NA - not applicable

Notes:
* The depth-to-product and depth-to-water numbers were reversed in the field form. The measurements have been corrected; the resulting product thickness is consistent with previous events.
A negative depth-to-water measurement denotes an artesian well where the water surface comes into the casing above the ground surface- the negative value represents the distance above ground surface.
A negative well casing height denotes a flush-mount well where the measuring point is below the ground surface.
Around the first quarter of 2019, some well casing heights were remeasured, but the ground surface elevations were not adjusted to reflect the change.

TABLE 4-1. 2020 SAMPLING FREQUENCY
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Group	Monitoring Well	Sampling Frequency	1Q2020	2Q2020	3Q2020	4Q2020
Eastern Boundary Monitoring Wells	OW-14	Q	NS – RW	Monitoring wells not sampled due to the COVID-19 pandemic.	NS – RW	NS – RW
	OW-29	Q	2/24/2020		9/17/2020	12/9/2020
	OW-30	Q	NS – RW		NS – RW	NS – RW
	OW-50	Q	3/2/2020		9/17/2020	12/9/2020
	OW-52	Q	3/2/2020		9/17/2020	12/9/2020
	OW-53	Q	NS – Dry		NS – Dry	NS – Dry
	OW-54	Q	NS – RW		NS – RW	NS – RW
	OW-55	Q	NS – RW		NS – RW	NS – RW
	OW-56	Q	3/2/2020		9/21/2020	12/23/2020
Tank Farm Monitoring Wells	OW-57	Q	3/5/2020	Monitoring wells not sampled due to the COVID-19 pandemic.	9/18/2020	12/23/1930
	OW-58	Q	NS – SPH		9/17/2020	12/22/2020
	OW-58A	Q	3/6/2020		9/19/2020	12/23/2020
	OW-61	Q	NS – SPH		NS – SPH	NS – SPH
	OW-62	Q	NS – SPH		NS – SPH	NS – SPH
	OW-63	Q	3/4/2020		9/16/2020	12/11/2020
	OW-64	Q	3/4/2020		9/22/2020	12/11/2020
	OW-65	Q	NS – SPH		NS – SPH	NS – SPH
	RW-1	Q	NS – RW		NS – RW	NS – RW
	RW-2	Q	NS – RW		NS – RW	NS – RW
	RW-5	Q	NS – RW		NS – RW	NS – RW

TABLE 4-1. 2020 SAMPLING FREQUENCY
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Group	Monitoring Well	Sampling Frequency	1Q2020	2Q2020	3Q2020	4Q2020
Marketing Tank Farm Monitoring Wells	MKTF-01	Q	NS – SPH	Monitoring wells not sampled due to the COVID-19 pandemic.	NS – SPH	NS – SPH
	MKTF-02	Q	2/25/2020		9/21/2020	12/18/2020
	MKTF-03	Q	NS – SPH		NS – SPH	NS – SPH
	MKTF-04	Q	3/3/2020		NS – SPH	NS – SPH
	MKTF-05	Q	NS – SPH		NS – SPH	NS – SPH
	MKTF-06	Q	NS – SPH		NS – SPH	NS – SPH
	MKTF-07	Q	NS – SPH		NS – SPH	NS – SPH
	MKTF-08	Q	NS – SPH		NS – SPH	NS – SPH
	MKTF-09	Q	3/3/2020		NS – SPH	NS – SPH
	MKTF-10	Q	3/3/2020		NS – SPH	12/18/2020
	MKTF-11	Q	3/3/2020		NS – SPH	NS – SPH
	MKTF-12	Q	NS – SPH		NS – SPH	NS – SPH
	MKTF-13	Q	NS – SPH		NS – SPH	NS – SPH
	MKTF-14	Q	NS – SPH		NS – SPH	NS – SPH
	MKTF-15	Q	NS – SPH		NS – SPH	NS – SPH
	MKTF-16	Q	NS – Dry		NS – SPH	12/23/2020
	MKTF-17	Q	NS – SPH		NS – SPH	NS – SPH
	MKTF-18	Q	2/6/2020		NS – SPH	12/16/2020
	MKTF-19	Q	NS – SPH		NS – SPH	NS – SPH
	MKTF-20	Q	2/5/2020		NS – SPH	NS – SPH
	MKTF-21	Q	2/5/2020		NS – SPH	NS – SPH
	MKTF-22	Q	NS – SPH		NS – SPH	NS – SPH
	MKTF-23	Q	NS – SPH		NS – SPH	NS – SPH
	MKTF-24	Q	2/25/2020		9/19/2020	12/18/2020
	MKTF-25	Q	2/27/2020		NS – Dry	12/18/2020
	MKTF-26	Q	NS – SPH		NS – SPH	NS – SPH
	MKTF-27	Q	2/25/2020		9/20/2020	12/18/2020
	MKTF-28	Q	2/25/2020		9/20/2020	12/18/2020
	MKTF-29	Q	2/25/2020		9/20/2020	12/15/2020
	MKTF-30	Q	2/27/2020		9/20/2020	12/15/2020
	MKTF-31	Q	2/25/2020		9/19/2020	12/18/2020
	MKTF-32	Q	2/27/2020		9/21/2020	12/15/2020
	MKTF-33	Q	2/28/2020		NS – SPH	NS – SPH
	MKTF-34	Q	2/28/2020		9/16/2020	NS – SPH
	MKTF-35	Q	2/6/2020		9/16/2020	NS – SPH
	MKTF-36	Q	NS – SPH		9/18/2020	NS – SPH
	MKTF-37	Q	NS – SPH		9/17/2020	NS – SPH
	MKTF-38	Q	3/5/2020		9/19/2020	NS – SPH
	MKTF-39	Q	2/5/2020		9/19/2020	12/16/2020
	MKTF-40	Q	2/28/2020		9/19/2020	12/17/2020
	MKTF-41	Q	2/27/2020		9/21/2020	12/15/2020
	MKTF-42	Q	2/27/2020		9/21/2020	12/16/2020
	MKTF-43	Q	2/27/2020		9/21/2020	12/15/2020
	MKTF-44	Q	3/5/2020		9/21/2020	12/23/2020
	MKTF-45	Q	NS – SPH		NS – SPH	NS – SPH
	MKTF-46	Q	3/6/2020		9/17/2020	12/16/2020
	MKTF-47	Q	3/6/2020		NS – SPH	NS – SPH
	MKTF-48	Q	NS – SPH		NS – SPH	NS – SPH
	MKTF-49	Q	3/5/2020		9/20/2020	12/23/2020
	MKTF-50	Q	3/5/2020		NS - SPH	12/16/2020

TABLE 4-1. 2020 SAMPLING FREQUENCY
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Group	Monitoring Well	Sampling Frequency	1Q2020	2Q2020	3Q2020	4Q2020
Wastewater Treatment Monitoring Wells	LDU-East	Q	3/10/2020	Monitoring wells not sampled due to the COVID-19 pandemic.	NS – H2S	12/17/2020
	LDU-West	Q	3/10/2020		NS – H2S	12/17/2020
	Oil Sump LDU	Q	NS – H2S		NS – H2S	NS - Dry
	NAPIS-1	Q	3/4/2020		NS – SPH	NS – SPH
	NAPIS-2	Q	3/4/2020		9/22/2020	12/17/2020
	NAPIS-3	Q	3/4/2020		9/22/2020	12/17/2020
	KA-3	Q	3/4/2020		9/22/2020	12/17/2020
	OAPIS-1	Q	3/4/2020		9/22/2020	12/17/2020
	STP1-NW	Q	3/4/2020		NS – H2S	12/23/2020
	STP1-SW	Q	NS – H2S		NS – H2S	NS – H2S
Solid Waste Management Unit 1 Monitoring Wells	GWM-1	Q	NS – SPH	Monitoring wells not sampled due to the COVID-19 pandemic.	NS – SPH	NS – SPH
	GWM-2	Q	NS – Dry		NS – Dry	NS – Dry
	GWM-3	Q	NS – Dry		NS – Dry	NS – Dry
	OW-59	Q	3/3/2020		9/19/2020	12/23/2020
	OW-60	Q	3/3/2020		9/21/2020	12/11/2020
Land Treatment Unit Monitoring Wells	MW-1	A	NA	Monitoring wells not sampled due to the COVID-19 pandemic.	9/22/2020	NA
	MW-2	A	NA		9/18/2020	NA
	MW-4	A	NA		9/18/2020	NA
	MW-5	A	NA		9/21/2020	NA
	SMW-2	A	NA		9/19/2020	NA
	SMW-4	A	NA		9/20/2020	NA
Evaporation Ponds	EP-2	S	NA	Monitoring wells not sampled due to the COVID-19 pandemic.	9/17/2020	12/21/2020
	EP-3	S	NA		9/16/2020	12/21/2020
	EP-4	S	NA		9/17/2020	12/21/2020
	EP-5	S	NA		9/17/2020	12/21/2020
	EP-6	S	NA		9/17/2020	12/21/2020
	EP-7	S	NA		9/17/2020	12/21/2020
	EP-8	S	NA		9/17/2020	12/22/2020
	EP-9	S	NA		9/17/2020	12/21/2020
	EP-11	S	NA		NS - Dry	12/22/2020
	EP-12A	S	NA		9/17/2020	12/22/2020
	EP-12B	S	NA		9/18/2020	12/22/2020
	STP-1 to EP-2	S	NA		9/16/2020	12/21/2020

TABLE 4-1. 2020 SAMPLING FREQUENCY
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Group	Monitoring Well	Sampling Frequency	1Q2020	2Q2020	3Q2020	4Q2020
Western Boundary Monitoring Wells	BW-1A	A	NA	Monitoring wells not sampled due to the COVID-19 pandemic.	NS – Dry	NA
	BW-1B	A	NA		NS – Dry	NA
	BW-1C	A	NA		9/20/2020	NA
	BW-2A	A	NA		9/20/2020	NA
	BW-2B	A	NA		9/21/2020	NA
	BW-2C	A	NA		9/20/2020	NA
	BW-3A	A	NA		NS – Dry	NA
	BW-3B	A	NA		9/21/2020	NA
	BW-3C	A	NA		9/22/2020	NA
	BW-4A	Q	NS – Dry		NS – Dry	NS – Dry
	BW-4B	Q	3/10/2020		NS – SPH	12/28/2020
	BW-5A	Q	NS – Dry		NS – Dry	NS – Dry
	BW-5B	Q	3/5/2020		9/20/2020	12/11/2020
	BW-5C	Q	3/5/2020		9/19/2020	12/9/2020
Deep Monitoring Wells	OW-01	Q	3/9/2020	Monitoring wells not sampled due to the COVID-19 pandemic.	9/20/2020	12/11/2020
	OW-10	Q	3/4/2020		9/20/2020	12/11/2020
	OW-11	A	NA		9/20/2020	NA
	OW-12	A	NA		9/20/2020	NA
	OW-13	Q	3/2/2020		9/17/2020	12/9/2020
	PW-2*	Every 3 Years	NA		9/21/2020	12/28/2020
	PW-3	Q	NA		9/21/2020	12/28/2020
	PW-4	Q	NA		9/21/2020	12/28/2020

Notes:
RW - Recovery Well
NS - Not Sampled
H2S - Hydrogen Sulfide
SPH - Separate Phase Hydrocarbon
NA - Not Applicable
Q - Quarterly Monitoring
A - Annual Monitoring
SA - Semiannual Monitoring
*PW-2 is sampled every 3 years; the next sampling event is scheduled for 2023.

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-2. VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	1,1,1,2-Tetrachloroethane (µg/L)	1,1,1-Trichloroethane (µg/L)	1,1,2,2-Tetrachloroethane (µg/L)	1,1,2-Trichloroethane (µg/L)	1,1-Dichloroethane (µg/L)	1,1-Dichloroethene (µg/L)	1,1-Dichloropropene (µg/L)	1,2,3-Trichlorobenzene (µg/L)	1,2,3-Trichloropropane (µg/L)	1,2,4-Trichloro-benzene (µg/L)	1,2,4-Trimethyl-benzene (µg/L)	1,2-Dibromo-3-chloropropane (µg/L)	1,2-Dibromo-ethane (µg/L)	1,2-Dichloro-benzene (µg/L)	1,2-Dichloro-ethane (µg/L)	1,2-Dichloro-propane (µg/L)	1,3,5-Trimethyl-benzene (µg/L)	1,3-Dichloro-benzene (µg/L)	1,3-Dichloro-propane (µg/L)
Eastern Boundary	OW-14	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-29	10/14/2019	ND(5)	ND(5)	ND(10)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	--	ND(5)	ND(5)	--	*ND(5)*	ND(5)	2.1	ND(5)	ND(5)	ND(5)	ND(5)
		2/24/2020	ND(5)	ND(5)	ND(10)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	*ND(10)*	ND(5)	ND(5)	*ND(10)*	*ND(5)*	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
		9/17/2020	ND(5)	ND(5)	ND(10)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	*ND(10)*	ND(5)	ND(5)	*ND(10)*	*ND(5)*	ND(5)	1.3 J	ND(5)	ND(5)	ND(5)	ND(5)
		12/9/2020	*ND(20)*	ND(20)	*ND(20)*	*ND(100)*	ND(20)	*ND(20)*	ND(20)	*ND(20)*	*ND(100)*	ND(20)	ND(20)	*ND(100)*	ND(0.0203) UJ	ND(20)	*ND(20)*	*ND(20)*	ND(20)	ND(20)	ND(20)
	OW-30	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-50	10/15/2019	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	--	ND(1)	ND(1)	--	*ND(1)*	ND(1)	0.5	ND(1)	ND(1)	ND(1)	ND(1)
		3/2/2020	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		9/17/2020	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	0.38 J	ND(1)	ND(1)	ND(1)	ND(1)
		12/9/2020	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(0.0195) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	OW-52	10/15/2019	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	--	ND(1)	ND(1)	--	*ND(1)*	ND(1)	0.47	ND(1)	ND(1)	ND(1)	ND(1)
		3/2/2020	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		9/17/2020	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	0.35 J	ND(1)	ND(1)	ND(1)	ND(1)
		12/9/2020	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(0.0197) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	OW-53	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-54	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-55	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-56	10/15/2019	ND(1)	ND(1)	ND(2)	ND(1)	0.58	ND(1)	ND(1)	ND(1)	--	ND(1)	ND(1)	--	*ND(1)*	ND(1)	**7.7**	ND(1)	ND(1)	ND(1)	ND(1)
		3/2/2020	ND(1)	ND(1)	ND(2)	ND(1)	0.49 J	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	**5.1**	ND(1)	ND(1)	ND(1)	ND(1)
		9/21/2020	ND(1)	ND(1)	ND(2)	ND(1)	0.29 J	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	1.2	*ND(2)*	*ND(1)*	ND(1)	**10**	ND(1)	1.6	ND(1)	ND(1)
		12/23/2020	ND(2)	ND(2)	ND(2)	*ND(10)*	ND(2)	ND(2)	ND(2)	ND(2)	*ND(10)*	ND(2)	**84.7**	*ND(10)*	ND(0.0197)	ND(2)	**22.9**	ND(2)	42.8	ND(2)	ND(2)
Tank Farm	OW-57	11/5/2019	*ND(20)*	ND(20)	*ND(40)*	*ND(20)*	ND(20)	*ND(20)*	ND(20)	*ND(20)*	--	ND(20)	ND(20)	--	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	ND(20)	ND(20)	ND(20)
		3/5/2020	*ND(20)*	ND(20)	*ND(40)*	*ND(20)*	ND(20)	*ND(20)*	ND(20)	*ND(20)*	*ND(40)*	ND(20)	ND(20)	*ND(40)*	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	ND(20)	ND(20)	ND(20)
		9/18/2020	*ND(50) UJ*	ND(50) UJ	*ND(100) UJ*	*ND(50) UJ*	*ND(50) UJ*	*ND(50) UJ*	ND(50) UJ	*ND(50) UJ*	*ND(100) UJ*	ND(50) UJ	ND(50) UJ	*ND(100) UJ*	*ND(50) UJ*	ND(50) UJ	*ND(50) UJ*	*ND(50) UJ*	ND(50) UJ	ND(50) UJ	ND(50) UJ
		12/23/2020	*ND(100)*	ND(100)	*ND(100)*	*ND(500)*	*ND(100)*	*ND(100)*	ND(100)	*ND(100)*	*ND(500)*	*ND(100)*	*ND(100)*	*ND(500) UJ*	ND(0.0203)	ND(100)	*ND(100)*	*ND(100)*	*ND(100)*	ND(100)	ND(100)
	OW-58	11/18/2019	*ND(50)*	ND(50)	*ND(100)*	*ND(50)*	*ND(50)*	*ND(50)*	ND(50)	*ND(50)*	--	ND(50)	16	--	*ND(50)*	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)
		1Q2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		9/17/2020	*ND(100) UJ*	ND(100) UJ	*ND(200) UJ*	*ND(100) UJ*	*ND(100) UJ*	*ND(100) UJ*	ND(100) UJ	*ND(100) UJ*	*ND(200) UJ*	*ND(100) UJ*	*ND(100) UJ*	*ND(200) UJ*	*ND(100) UJ*	ND(100) UJ	*ND(100) UJ*	*ND(100) UJ*	*ND(100) UJ*	ND(100) UJ	ND(100) UJ
		12/22/2020	*ND(200) UJ*	ND(200)	*ND(200)*	*ND(1000) UJ*	*ND(200)*	*ND(200)*	ND(200)	*ND(200) UJ*	*ND(1000)*	*ND(200) UJ*	*ND(200)*	*ND(1000) UJ*	ND(0.0203) UJ	ND(200)	*ND(200)*	*ND(200)*	ND(200)	ND(200)	ND(200) UJ
	OW-58A	4Q2019	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		3/6/2020	*ND(50)*	ND(50)	*ND(100)*	*ND(50)*	*ND(50)*	*ND(50)*	ND(50)	*ND(50)*	*ND(100)*	ND(50)	**440**	*ND(100)*	*ND(50)*	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)
		9/18/2020	*ND(50) UJ*	ND(50) UJ	*ND(100) UJ*	*ND(50) UJ*	*ND(50) UJ*	*ND(50) UJ*	ND(50) UJ	*ND(50) UJ*	*ND(100) UJ*	ND(50) UJ	**450 J**	*ND(100) UJ*	*ND(50) UJ*	ND(50) UJ	*ND(50) UJ*	*ND(50) UJ*	**150 J**	ND(50) UJ	ND(50) UJ
		12/23/2020	*ND(50)*	ND(50)	*ND(50)*	*ND(250)*	*ND(50)*	*ND(50)*	ND(50)	*ND(50)*	*ND(250)*	ND(50)	**91.4**	*ND(250) UJ*	ND(0.0198)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)
	OW-61	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-62	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-63	11/18/2019	*ND(20)*	ND(20)	*ND(40)*	*ND(20)*	ND(20)	*ND(20)*	ND(20)	*ND(20)*	--	ND(20)	7.7	--	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	14	ND(20)	ND(20)
		3/4/2020	*ND(20)*	ND(20)	*ND(40)*	*ND(20)*	ND(20)	*ND(20)*	ND(20)	*ND(20)*	*ND(40)*	ND(20)	3.9 J	*ND(40)*	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	11 J	ND(20)	ND(20)
		9/16/2020	*ND(20)*	ND(20)	*ND(40)*	*ND(20)*	ND(20)	*ND(20)*	ND(20)	*ND(20)*	*ND(40)*	ND(20)	ND(20)	*ND(40)*	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	8.6 J	ND(20)	ND(20)
		12/11/2020	*ND(100)*	ND(100)	*ND(100)*	*ND(500)*	*ND(100)*	*ND(100)*	ND(100)	*ND(100)*	*ND(500)*	*ND(100)*	*ND(100)*	*ND(500)*	*ND(100)*	ND(100)	*ND(100)*	*ND(100)*	*ND(100)*	ND(100)	ND(100)
	OW-64	11/18/2019	ND(2)	ND(4)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	--	ND(2)	55	--	ND(2)	ND(2)	ND(2)	ND(2)	3	ND(2)	ND(2)
		3/4/2020	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	**120**	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	7.1	ND(1)	ND(1)
		9/22/2020	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	**100**	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	5.7	ND(1)	ND(1)
		12/11/2020	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	**67.5**	*ND(5)*	*ND(1)*	ND(1)	ND(1)	ND(1)	5.68	ND(1)	ND(1)
	OW-65	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-1	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-2	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-5	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-6	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	Selected Screening Levels		5.74	200	10	5	25	7	NA	7	0.0084	70	56	0.0033	0.05	600	5	5	60	NA	370

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-2. VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	1,4-Dichloro-benzene (µg/L)	1,4-Dioxane (µg/L)	2,2-Dichloro-propane (µg/L)	2-Butanone (µg/L)	2-Chlorotoluene (µg/L)	2-Hexanone (µg/L)	4-Chlorotoluene (µg/L)	4-Methyl-2-Pentanone (µg/L)	Acetone (µg/L)	Benzene (µg/L)	Bromobenzene (µg/L)	Bromodichloro-methane (µg/L)	Bromoform (µg/L)	Bromomethane (µg/L)	Carbon Disulfide (µg/L)	Carbon tetrachloride (µg/L)	Chlorobenzene (µg/L)	Chloroethane (µg/L)	Chloroform (µg/L)	Chloromethane (µg/L)	cis-1,2-Dichloro-ethene (µg/L)	Cis-1,3-dichloro-propene (µg/L)	Dibromo-chloromethane (µg/L)	Dibromomethane (µg/L)	Dichlorodifluoro-methane (µg/L)
Eastern Boundary	OW-14	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-29	10/14/2019	ND(5)	--	ND(10)	ND(50)	ND(5)	*ND(50)*	ND(5)	ND(50)	ND(50)	ND(5)	ND(5)	*ND(5)*	ND(5)	*ND(15)*	ND(50)	ND(5)	ND(5)	ND(10)	ND(5)	ND(15)	ND(5)	*ND(5)*	ND(5)	*ND(5)*	ND(5)	ND(5)
		2/24/2020	ND(5)	--	ND(10)	ND(50)	ND(5)	*ND(50)*	ND(5)	ND(50)	ND(50)	ND(5)	ND(5)	*ND(5)*	ND(5)	*ND(15)*	ND(50)	ND(5)	ND(5)	ND(10)	ND(5)	ND(15)	ND(5)	*ND(5)*	ND(5)	*ND(5)*	ND(5)	ND(5)
		9/17/2020	ND(5)	--	ND(10)	ND(50)	ND(5)	*ND(50)*	ND(5)	ND(50)	ND(50)	ND(5)	ND(5)	*ND(5)*	ND(5)	*ND(15)*	ND(50)	ND(5)	ND(5)	ND(10)	ND(5)	ND(15)	ND(5)	*ND(5)*	ND(5)	*ND(5)*	ND(5)	ND(5)
		12/9/2020	ND(20)	ND(1)	ND(20)	ND(500)	ND(20)	*ND(500)*	ND(20)	ND(500)	ND(500)	*ND(20)*	--	*ND(20)*	*ND(100) UJ*	ND(20)	ND(20)	*ND(20)*	ND(20)	ND(20)	ND(20)	ND(20) UJ	ND(20)	*ND(100)*	*ND(20)*	*ND(100)*	ND(20) UJ
	OW-30	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-50	10/15/2019	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		3/2/2020	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	3.3J/ND(10)U*	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		9/17/2020	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/9/2020	ND(1)	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	ND(1)	--	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1)
	OW-52	10/15/2019	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		3/2/2020	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	2.9J/ND(10)U*	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		9/17/2020	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	0.58J/ND(3)U*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/9/2020	ND(1)	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	ND(1)	--	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1)
	OW-53	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-54	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-55	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-56	10/15/2019	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	1.1	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		3/2/2020	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	9.9J/ND(10)U*	0.64J/ND(1)U*	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		9/21/2020	ND(1)	--	ND(2)	1.5 J	ND(1)	ND(10)	ND(1)	ND(10)	15 JB	**5.3**	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/23/2020	ND(2)	ND(1)	ND(2)	ND(50)	ND(2)	*ND(50)*	ND(2)	ND(50)	ND(50)	**547**	--	*ND(2)*	ND(10)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	*ND(10)*	*ND(2)*	*ND(10) UJ*	ND(2)
Tank Farm	OW-57	11/5/2019	ND(20)	--	ND(40)	ND(200)	ND(20)	*ND(200)*	ND(20)	ND(200)	50	**11000**	ND(20)	*ND(20)*	ND(20)	*ND(60)*	ND(200)	*ND(20)*	ND(20)	ND(40)	ND(20)	*ND(60)*	ND(20)	*ND(20)*	*ND(20)*	*ND(20)*	ND(20)
		3/5/2020	ND(20)	--	ND(40)	ND(200)	ND(20)	*ND(200)*	ND(20)	ND(200)	94J/ND(200)U*	**13000**	ND(20)	*ND(20)*	ND(20)	*ND(60)*	ND(200)	*ND(20)*	ND(20)	ND(40)	ND(20)	*ND(60)*	ND(20)	*ND(20)*	*ND(20)*	*ND(20)*	ND(20)
		9/18/2020	ND(50) UJ	--	ND(100) UJ	ND(500) UJ	ND(50) UJ	*ND(500) UJ*	ND(50) UJ	ND(500) UJ	ND(500) UJ	**11000 J**	ND(50) UJ	*ND(50) UJ*	*ND(50) UJ*	*ND(150) UJ*	ND(500) UJ	*ND(50) UJ*	ND(50) UJ	ND(100) UJ	ND(50) UJ	*ND(150) UJ*	ND(50) UJ	*ND(50) UJ*	*ND(50) UJ*	*ND(50) UJ*	ND(50) UJ
		12/23/2020	*ND(100)*	--	ND(100)	ND(2500)	ND(100)	*ND(2500)*	ND(100)	ND(2500)	ND(2500)	**10400**	--	*ND(100)*	*ND(500) UJ*	*ND(100) UJ*	ND(100)	*ND(100)*	ND(100)	ND(100)	ND(100)	*ND(100)*	*ND(100)*	*ND(500)*	*ND(100) UJ*	*ND(500)*	ND(100)
	OW-58	11/18/2019	ND(50)	--	ND(100)	ND(500)	ND(50)	*ND(500)*	ND(50)	ND(500)	ND(500)	**33000**	ND(50)	*ND(50)*	*ND(50)*	*ND(150)*	ND(500)	*ND(50)*	ND(50)	ND(100)	ND(50)	*ND(150)*	ND(50)	*ND(50)*	*ND(50)*	*ND(50)*	ND(50)
		1Q2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		9/17/2020	*ND(100) UJ*	--	ND(200) UJ	ND(1000) UJ	ND(100) UJ	*ND(1000) UJ*	ND(100) UJ	ND(1000) UJ	ND(1000) UJ	**27000 J**	*ND(100) UJ*	*ND(100) UJ*	*ND(100) UJ*	*ND(300) UJ*	*ND(1000) UJ*	*ND(100) UJ*	*ND(100) UJ*	ND(200) UJ	ND(100) UJ	*ND(300) UJ*	*ND(100) UJ*	*ND(100) UJ*	*ND(100) UJ*	*ND(100) UJ*	ND(100) UJ
		12/22/2020	*ND(200)*	--	ND(200)	ND(5000)	ND(200)	*ND(5000)*	ND(200) UJ	ND(5000)	ND(5000)	**33000**	--	*ND(200) UJ*	*ND(1000) UJ*	*ND(200)*	ND(200)	*ND(200)*	*ND(200) UJ*	ND(200)	*ND(200)*	*ND(200)*	*ND(200)*	*ND(1000)*	*ND(200) UJ*	*ND(1000)*	*ND(200) UJ*
	OW-58A	4Q2019	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		3/6/2020	ND(50)	--	ND(100)	ND(500)	ND(50)	*ND(500)*	ND(50)	ND(500)	ND(500)	**9700**	ND(50)	*ND(50)*	*ND(50)*	*ND(150)*	ND(500)	*ND(50)*	ND(50)	ND(100)	ND(50)	*ND(150)*	ND(50)	*ND(50)*	*ND(50)*	*ND(50)*	ND(50)
		9/18/2020	ND(50) UJ	--	ND(100) UJ	ND(500) UJ	ND(50) UJ	*ND(500) UJ*	ND(50) UJ	ND(500) UJ	ND(500) UJ	**6900 J**	ND(50) UJ	*ND(50) UJ*	*ND(50) UJ*	*ND(150) UJ*	ND(500) UJ	*ND(50) UJ*	ND(50) UJ	ND(100) UJ	ND(50) UJ	*ND(150) UJ*	ND(50) UJ	*ND(50) UJ*	*ND(50) UJ*	*ND(50) UJ*	ND(50) UJ
		12/23/2020	ND(50)	--	ND(50)	ND(1250)	ND(50)	*ND(1250)*	ND(50)	ND(1250)	ND(1250)	**6070**	--	*ND(50)*	*ND(250) UJ*	*ND(50) UJ*	ND(50)	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*	ND(50)	*ND(250)*	*ND(50) UJ*	*ND(250)*	ND(50)
	OW-61	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-62	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-63	11/18/2019	ND(20)	--	ND(40)	ND(200)	ND(20)	*ND(200)*	ND(20)	ND(200)	ND(200)	**8600**	ND(20)	*ND(20)*	ND(20)	*ND(60)*	ND(200)	*ND(20)*	ND(20)	ND(40)	ND(20)	*ND(60)*	ND(20)	*ND(20)*	*ND(20)*	*ND(20)*	ND(20)
		3/4/2020	ND(20)	--	ND(40)	ND(200)	ND(20)	*ND(200)*	ND(20)	ND(200)	67J/ND(200)U*	**9100**	ND(20)	*ND(20)*	ND(20)	*ND(60)*	ND(200)	*ND(20)*	ND(20)	ND(40)	ND(20)	*ND(60)*	ND(20)	*ND(20)*	*ND(20)*	*ND(20)*	ND(20)
		9/16/2020	ND(20)	--	ND(40)	ND(200)	ND(20)	*ND(200)*	ND(20)	ND(200)	ND(200)	**8500**	ND(20)	*ND(20)*	ND(20)	*ND(60)*	ND(200)	*ND(20)*	ND(20)	ND(40)	ND(20)	*ND(60)*	ND(20)	*ND(20)*	*ND(20)*	*ND(20)*	ND(20)
		12/11/2020	*ND(100)*	--	ND(100) UJ	ND(2500)	ND(100)	*ND(2500)*	ND(100)	ND(2500)	ND(2500)	**10000**	--	*ND(100)*	*ND(500) UJ*	*ND(100)*	ND(100)	*ND(100)*	ND(100)	ND(100)	ND(100)	*ND(100)*	*ND(100)*	*ND(500)*	*ND(100)*	*ND(500)*	ND(100) UJ
	OW-64	11/18/2019	ND(2)	--	ND(4)	ND(20)	ND(2)	ND(20)	ND(2)	ND(20)	5	**13**	ND(2)	ND(2)	ND(2)	ND(6)	ND(20)	ND(2)	ND(2)	ND(4)	ND(2)	ND(6)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)
		3/4/2020	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	10 JB	**34**	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		9/22/2020	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	4J/ND(10)U*	**94**	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/11/2020	ND(1)	--	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	**13.5**	--	ND(1)	ND(5) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1) UJ
	OW-65	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-1	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-2	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-5	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-6	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	Selected Screening Levels		75	4.59	NA	5,565	240	38	250	6,300	14,064	5	62	1.34	32.9	7.54	810	5	77.6	21,000	100	20.32	70	4.71	1.68	8	197

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-2. VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Ethylbenzene (µg/L)	Hexachloro-butadiene (µg/L)	Isopropyl-benzene (µg/L)	Methylene Chloride (µg/L)	MTBE (µg/L)	n-Butyl-benzene (µg/L)	n-Propyl-benzene (µg/L)	p-Isopropyl-toluene (µg/L)	sec-Butylbenzene (µg/L)	Styrene (µg/L)	tert-Butyl-benzene (µg/L)	Tetrachloro-ethene (µg/L)	Toluene (µg/L)	trans-1,2-Dichloroethene (µg/L)	trans-1,3-Dichloropropene (µg/L)	Trichloroethene (µg/L)	Trichlorofluor-methane (µg/L)	Vinyl Chloride (µg/L)	Xylenes, Total (µg/L)
	OW-14	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-29	10/14/2019	ND(5)	*ND(5)*	ND(5)	*ND(15)*	**3100**	ND(15)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	*ND(5)*	ND(5)	ND(5)	*ND(5)*	ND(7.5)
		2/24/2020	ND(5)	*ND(5)*	ND(5)	*ND(15)*	**3800**	ND(15)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	*ND(5)*	ND(5)	ND(5)	*ND(5)*	ND(7.5)
		9/17/2020	ND(5)	*ND(5)*	ND(5)	*ND(15)*	**3800**	ND(15)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	*ND(5)*	ND(5)	ND(5)	*ND(5)*	ND(7.5)
		12/9/2020	ND(20)	*ND(100)*	ND(20)	*ND(100)*	**3350**	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	*ND(20)*	ND(20)	ND(20)	*ND(100)*	*ND(20)*	ND(20)	*ND(20)*	ND(200)
	OW-30	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-50	10/15/2019	ND(1)	ND(1)	ND(1)	ND(3)	20	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		3/2/2020	ND(1)	ND(1)	ND(1)	ND(3)	26	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		9/17/2020	ND(1)	ND(1)	ND(1)	ND(3)	41	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/9/2020	ND(1)	*ND(5)*	ND(1)	ND(5)	52	ND(1) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(10)
Eastern Boundary	OW-52	10/15/2019	ND(1)	ND(1)	ND(1)	ND(3)	2	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		3/2/2020	ND(1)	ND(1)	ND(1)	ND(3)	2.3	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		9/17/2020	ND(1)	ND(1)	ND(1)	ND(3)	2.9	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/9/2020	ND(1)	*ND(5)*	ND(1)	ND(5)	2.69	ND(1) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(10)
	OW-53	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-54	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-55	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-56	10/15/2019	ND(1)	ND(1)	1.4	ND(3)	11	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		3/2/2020	ND(1)	ND(1)	1.1	ND(3)	14	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		9/21/2020	0.52 J	ND(1)	0.25 J	ND(3)	32	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	2.8	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	45
		12/23/2020	76.9	*ND(10)*	7.02	*ND(10)*	70.8	ND(2)	4.44	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	125	ND(2)	*ND(10)*	ND(2)	ND(2) UJ	ND(2)	469
	OW-57	11/5/2019	540	*ND(20)*	16	*ND(60)*	92	5.4	42	ND(20)	ND(20)	ND(20)	ND(20)	*ND(20)*	76	ND(20)	*ND(20)*	*ND(20)*	ND(20)	*ND(20)*	130
		3/5/2020	550	*ND(20)*	15 J	*ND(60)*	89	ND(60)	41	ND(20)	ND(20)	ND(20)	ND(20)	*ND(20)*	62	ND(20)	*ND(20)*	*ND(20)*	ND(20)	*ND(20)*	130
		9/18/2020	550 J	*ND(50) UJ*	12 J	*ND(150) UJ*	71 J	ND(150) UJ	34 J	ND(50) UJ	ND(50) UJ	ND(50) UJ	ND(50) UJ	*ND(50) UJ*	54 J	ND(50) UJ	*ND(50) UJ*	*ND(50) UJ*	ND(50) UJ	*ND(50) UJ*	140 J
		12/23/2020	218	*ND(500)*	ND(100)	*ND(500)*	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	*ND(100)*	ND(100)	ND(100)	*ND(500) UJ*	*ND(100)*	ND(100)	*ND(100)*	*ND(1000)*
	OW-58	11/18/2019	**1200**	*ND(50)*	26	*ND(150)*	**2100**	ND(150)	90	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	85	ND(50)	*ND(50)*	*ND(50)*	ND(50)	*ND(50)*	160
		1Q2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		9/17/2020	**1300 J**	*ND(100) UJ*	24 J	*ND(300) UJ*	**1900 J**	ND(300) UJ	93 J	ND(100) UJ	ND(100) UJ	ND(100) UJ	ND(100) UJ	*ND(100) UJ*	110 J	ND(100) UJ	*ND(100) UJ*	*ND(100) UJ*	ND(100) UJ	*ND(100) UJ*	160 J
		12/22/2020	**1060**	*ND(1000) UJ*	ND(200)	*ND(1000)*	**1830**	ND(200)	ND(200)	ND(200)	ND(200)	*ND(200) UJ*	ND(200) UJ	*ND(200)*	ND(200) UJ	*ND(200)*	*ND(1000) UJ*	ND(200)	ND(200)	*ND(200)*	*VD(2000) UJ*
	OW-58A	4Q2019	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		3/6/2020	620	*ND(50)*	35 J	*ND(150)*	**2800**	ND(150)	89	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	490	ND(50)	*ND(50)*	*ND(50)*	ND(50)	*ND(50)*	**1800**
		9/18/2020	670 J	*ND(50) UJ*	36 J	*ND(150) UJ*	**2500 J**	ND(150) UJ	97 J	ND(50) UJ	ND(50) UJ	ND(50) UJ	ND(50) UJ	*ND(50) UJ*	140 J	ND(50) UJ	*ND(50) UJ*	*ND(50) UJ*	ND(50) UJ	*ND(50) UJ*	**1100 J**
		12/23/2020	203	*ND(250)*	ND(50)	*ND(250)*	**2430**	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	52.6	ND(50)	*ND(250) UJ*	*ND(50)*	ND(50)	*ND(50)*	ND(500)
	OW-61	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-62	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-63	11/18/2019	**1100**	*ND(20)*	53	*ND(60)*	32	17	150	ND(20)	7.9	ND(20)	ND(20)	*ND(20)*	63	ND(20)	*ND(20)*	*ND(20)*	ND(20)	*ND(20)*	260
Tank Farm		3/4/2020	**1100**	*ND(20)*	54	*ND(60)*	33	18 J	160	ND(20)	ND(20)	ND(20)	ND(20)	*ND(20)*	61	ND(20)	*ND(20)*	*ND(20)*	ND(20)	*ND(20)*	230
		9/16/2020	**1200**	*ND(20)*	55	*ND(60)*	30	18 J	150	ND(20)	ND(20)	ND(20)	ND(20)	*ND(20)*	50	ND(20)	*ND(20)*	*ND(20)*	ND(20)	*ND(20)*	210
		12/11/2020	**1320**	*ND(500)*	ND(100)	*ND(500)*	ND(100)	ND(100)	170	ND(100)	ND(100)	ND(100)	ND(100)	*ND(100)*	ND(100)	ND(100)	*ND(500)*	*ND(100)*	ND(100)	*ND(100)*	*ND(1000)*
	OW-64	11/18/2019	39	*ND(2)*	37	*ND(6)*	ND(2)	ND(6)	23	7.1	12	ND(2)	0.97	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	50
		3/4/2020	110	ND(1)	39	ND(3)	ND(1)	0.45 J	34	5.5	12	ND(1)	1.5	ND(1)	0.73 J	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	110
		9/22/2020	73	ND(1)	22	ND(3)	ND(1)	ND(3)	14	4.9	7.1	ND(1)	1.1	ND(1)	31	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	74
		12/11/2020	40.5	*ND(5)*	15.7	ND(5)	ND(1)	ND(1)	10	3.79	5.79	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	ND(1)	42.1
	OW-65	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-1	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-2	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-5	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-6	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	Selected Screening Levels		700	1.39	447	5	143	1,000	660	NA	2,000	100	690	5	1,000	100	4.71	5	1,137	2	620

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-2. VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	1,1,1,2-Tetrachloroethane (µg/L)	1,1,1-Trichloroethane (µg/L)	1,1,2,2-Tetrachloroethane (µg/L)	1,1,2-Trichloroethane (µg/L)	1,1-Dichloroethane (µg/L)	1,1-Dichloroethene (µg/L)	1,1-Dichloropropene (µg/L)	1,2,3-Trichlorobenzene (µg/L)	1,2,3-Trichloropropane (µg/L)	1,2,4-Trichloro-benzene (µg/L)	1,2,4-Trimethyl-benzene (µg/L)	1,2-Dibromo-3-chloropropane (µg/L)	1,2-Dibromo-ethane (µg/L)	1,2-Dichloro-benzene (µg/L)	1,2-Dichloro-ethane (µg/L)	1,2-Dichloro-propane (µg/L)	1,3,5-Trimethyl-benzene (µg/L)	1,3-Dichloro-benzene (µg/L)	1,3-Dichloro-propane (µg/L)
	MKTF-01	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-02	11/19/2019	ND(5)	ND(5)	ND(10)	ND(5)	15	1.4	ND(5)	ND(5)	--	ND(5)	8.6	--	*ND(5)*	ND(5)	4.7	ND(5)	ND(5)	ND(5)	ND(5)
		2/25/2020	ND(5)	ND(5)	ND(10)	ND(5)	6.5	1.8 J	ND(5)	ND(5)	*ND(10)*	ND(5)	**60**	*ND(10)*	*ND(5)*	ND(5)	2 J	ND(5)	3.2 J	ND(5)	ND(5)
		9/21/2020	ND(1)	ND(1)	ND(2)	ND(1)	21	1.4	ND(1)	ND(1)	*ND(2)*	ND(1)	37	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	1.6	ND(1)	ND(1)
		12/18/2020	ND(5)	ND(5)	ND(5)	*ND(25)*	**29.1**	**8.76**	ND(5)	ND(5)	*ND(25) UJ*	ND(5)	25.7	*ND(25)*	*ND(5)*	ND(5)	**34**	ND(5)	ND(5)	ND(5)	ND(5)
	MKTF-03	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-04	10/30/2019	ND(5)	ND(5)	ND(10)	ND(5)	5.5	**7.3**	ND(5)	ND(5)	--	ND(5)	**410**	--	*ND(5)*	ND(5)	ND(5)	ND(5)	**79**	ND(5)	ND(5)
		3/3/2020	ND(5)	ND(5)	ND(10)	ND(5)	9.1	**13**	ND(5)	ND(5)	*ND(10)*	ND(5)	**380**	*ND(10)*	*ND(5)*	ND(5)	2.3 J	ND(5)	58	ND(5)	ND(5)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-05	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-06	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-07	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-08	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-09	11/18/19	*ND(10)*	14	*ND(20)*	*ND(10)*	11	**15**	ND(10)	*ND(10)*	--	ND(10)	**88**	--	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)
		03/03/20	*ND(20)*	28	*ND(40)*	*ND(20)*	19 J	**28**	ND(20)	*ND(20)*	*ND(40)*	ND(20)	**96**	*ND(40)*	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	ND(20)	ND(20)	ND(20)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-10	10/30/19	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	**31**	5.9	ND(10)	*ND(10)*	--	ND(10)	**760**	--	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	**200**	ND(10)	ND(10)
		03/03/20	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	**47**	6.6 J	ND(10)	*ND(10)*	*ND(20)*	ND(10)	**950**	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	**220**	ND(10)	ND(10)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	*ND(25)*	ND(25)	*ND(25)*	*ND(125)*	**40**	*ND(25)*	ND(25)	*ND(25)*	*ND(125) UJ*	ND(25)	**1070**	*ND(125) UJ*	*ND(25)*	ND(25)	*ND(25)*	*ND(25)*	**246**	ND(25)	ND(25)
	MKTF-11	10/30/19	*ND(20)*	ND(20)	*ND(40)*	*ND(20)*	**27**	*ND(20)*	ND(20)	*ND(20)*	--	ND(20)	**300**	--	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	55	ND(20)	ND(20)
		03/03/20	*ND(20)*	ND(20)	*ND(40)*	*ND(20)*	**35**	*ND(20)*	ND(20)	*ND(20)*	*ND(40)*	ND(20)	**180**	*ND(40)*	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	35	ND(20)	ND(20)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-12	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-13	10/29/19	*ND(20)*	ND(20)	*ND(40)*	*ND(20)*	ND(20)	*ND(20)*	ND(20)	*ND(20)*	--	ND(20)	**350**	--	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	**100**	ND(20)	ND(20)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-14	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-15	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-16	10/30/19	*ND(100)*	ND(100)	*ND(200)*	*ND(100)*	**69**	*ND(100)*	ND(100)	*ND(100)*	--	*ND(100)*	**380**	--	*ND(100)*	ND(100)	ND(100)	*ND(100)*	*ND(100)*	ND(100)	ND(100)
		1Q2020 - 3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/23/20	*ND(100)*	ND(100)	*ND(100)*	*ND(500)*	*ND(100)*	*ND(100)*	ND(100)	*ND(100)*	*ND(500)*	*ND(100)*	**236**	*ND(500)*	*ND(100)*	ND(100)	*ND(100)*	*ND(100)*	*ND(100)*	ND(100)	ND(100)
	MKTF-17	10/29/19	ND(5)	ND(5)	ND(10)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	--	ND(5)	**150**	--	*ND(5)*	ND(5)	ND(5)	ND(5)	38	ND(5)	ND(5)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-18	10/29/19	ND(2)	ND(2)	ND(4)	ND(2)	ND(2)	0.76	ND(2)	ND(2)	--	ND(2)	ND(2)	--	*ND(2)*	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)
		02/06/20	ND(2)	ND(2)	ND(4)	ND(2)	0.51 J	ND(2)	ND(2)	ND(2)	*ND(4)*	ND(2)	ND(2)	*ND(4)*	*ND(2)*	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	ND(2)	ND(2)	ND(2)	*ND(10)*	ND(2)	ND(2)	ND(2)	ND(2)	*ND(10)*	ND(2)	ND(2)	*ND(10)*	ND(0.0193) UJ	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)
	MKTF-19	10/29/19	*ND(20)*	ND(20)	*ND(40)*	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	*ND(20)*	--	*ND(20)*	**480**	--	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	**86**	ND(20)	ND(20)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-20	11/05/19	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(10)*	--	ND(10)	**190**	--	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	31	ND(10)	ND(10)
		02/05/20	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(20)*	ND(10)	**170**	*ND(20)*	*ND(10)*	ND(10)	ND(5)	*ND(10)*	49	ND(10)	ND(10)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-21	11/05/19	*ND(20)*	ND(20)	*ND(40)*	*ND(20)*	ND(20)	*ND(20)*	ND(20)	*ND(20)*	--	ND(20)	**1100**	--	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	26	ND(20)	ND(20)
Marketing		02/05/20	ND(5)	ND(5)	ND(10)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	*ND(10)*	ND(5)	6.8	*ND(10)*	*ND(5)*	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
Tank Farm		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Area	MKTF-22	10/24/19	*ND(20)*	ND(20)	*ND(40)*	*ND(20)*	13	**13**	ND(20)	*ND(20)*	--	ND(20)	ND(20)	--	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	ND(20)	ND(20)	ND(20)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-23	10/29/19	*ND(100)*	18	*ND(200)*	*ND(100)*	**61**	**42**	ND(100)	*ND(100)*	--	*ND(100)*	**910**	--	*ND(100)*	ND(100)	*ND(100)*	*ND(100)*	**260**	ND(100)	ND(100)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-24	10/23/19	*ND(20)*	ND(20)	*ND(40)*	*ND(20)*	**33**	**11**	ND(20)	*ND(20)*	--	ND(20)	5.3	--	*ND(20)*	ND(20)	**9.3**	*ND(20)*	ND(20)	ND(20)	ND(20)
		02/25/20	*ND(20)*	ND(20)	*ND(40)*	*ND(20)*	**38**	**20 J**	ND(20)	*ND(20)*	*ND(40)*	ND(20)	ND(20)	*ND(40)*	*ND(20)*	ND(20)	**10 J**	*ND(20)*	ND(20)	ND(20)	ND(20)
		09/19/20	*ND(20)*	ND(20)	*ND(40)*	*ND(20)*	**41**	6.1 J	ND(20)	*ND(20)*	*ND(40)*	ND(20)	ND(20)	*ND(40)*	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	ND(20)	ND(20)	ND(20)
		12/18/20	*ND(25)*	ND(25)	*ND(25)*	*ND(125)*	**39.3**	*ND(25)*	ND(25)	*ND(25)*	*ND(125) UJ*	ND(25)	ND(25)	*ND(125)*	*ND(25)*	ND(25)	**163**	ND(25)	ND(25)	ND(25)	ND(25)
	MKTF-25	10/23/19	ND(5)	ND(5)	ND(10)	1.5	**110**	**59**	ND(5)	ND(5)	--	ND(5)	1.3	--	*ND(5)*	ND(5)	**9.1**	ND(5)	ND(5)	ND(5)	ND(5)
		02/27/20	ND(5)	ND(5)	ND(10)	ND(5)	**100**	**63**	ND(5)	ND(5)	*ND(10)*	ND(5)	ND(5)	*ND(10)*	*ND(5)*	ND(5)	**8.8**	ND(5)	ND(5)	ND(5)	ND(5)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	ND(5)	ND(5)	ND(5)	*ND(25)*	**91.8**	**61.3**	ND(5)	ND(5)	*ND(25) UJ*	ND(5)	ND(5)	*ND(25)*	*ND(5)*	ND(5)	**32.1**	ND(5)	ND(5)	ND(5)	ND(5)
	MKTF-26	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-27	10/23/19	ND(1)	ND(1)	ND(2)	ND(1)	1.1	0.4	ND(1)	ND(1)	--	ND(1)	ND(1)	--	*ND(1)*	ND(1)	0.53	ND(1)	ND(1)	ND(1)	ND(1)
		02/25/20	ND(1)	ND(1)	ND(2)	ND(1)	0.43 J	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/20/20	ND(1)	ND(1)	ND(2)	ND(1)	1.3	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	0.39 J	ND(1)	ND(1)	ND(1)	ND(1)
		12/18/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5) UJ*	ND(1)	ND(1)	*ND(5)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	MKTF-28	10/22/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	--	ND(1)	ND(1)	--	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		02/25/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/20/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/18/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	*ND(5)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	MKTF-29	10/22/19	ND(1)	ND(1)	ND(2)	ND(1)	0.56	ND(1)	ND(1)	ND(1)	--	ND(1)	ND(1)	--	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		02/25/20	ND(1)	ND(1)	ND(2)	ND(1)	0.45 J	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/20/20	ND(1)	ND(1)	ND(2)	ND(1)	0.29 J	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/15/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	*ND(5) UJ*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	MKTF-30	10/23/19	ND(1)	0.28	ND(2)	0.35	**47**	4.4	ND(1)	ND(1)	--	ND(1)	ND(1)	--	*ND(1)*	ND(1)	2.1	ND(1)	ND(1)	ND(1)	ND(1)
		02/27/20	ND(1)	ND(1)	ND(2)	ND(1)	**35**	4	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	1.6	ND(1)	ND(1)	ND(1)	ND(1)
		09/20/20	ND(1)	ND(1)	ND(2)	0.2 J	**36**	2.2	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	1.6	ND(1)	ND(1)	ND(1)	ND(1)
		12/15/20	ND(1)	ND(1)	ND(1)	ND(5)	24.1	1.99	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	*ND(5) UJ*	ND(0.02) UJ	ND(1)	1.22	ND(1)	ND(1)	ND(1)	ND(1)
	MKTF-31	10/22/19	ND(1)	3.6	ND(2)	2.3	**36**	**53**	ND(1)	ND(1)	--	ND(1)	0.22	--	*ND(1)*	ND(1)	**21**	ND(1)	ND(1)	ND(1)	ND(1)
		02/25/20	ND(1)	4.6	ND(2)	3.1	**39**	**84**	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	**28**	0.39 J	ND(1)	ND(1)	ND(1)
		09/19/20	ND(1)	3.5	ND(2)	2.2	**48**	**63**	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	**24**	ND(1)	ND(1)	ND(1)	ND(1)
		12/18/20	ND(2)	2.99	ND(2)	*ND(10)*	**42.7**	**69.2**	ND(2)	ND(2)	*ND(10) UJ*	ND(2)	ND(2)	*ND(10)*	ND(0.0206) UJ	ND(2)	**25.5**	ND(2)	ND(2)	ND(2)	ND(2)
	MKTF-32	10/23/19	ND(2)	ND(2)	ND(4)	1.1	12	**18**	ND(2)	ND(2)	--	ND(2)	ND(2)	--	*ND(2)*	ND(2)	**14**	ND(2)	ND(2)	ND(2)	ND(2)
		02/27/20	ND(2)	ND(2)	ND(4)	0.41 J	10	**25**	ND(2)	ND(2)	*ND(4)*	ND(2)	ND(2)	*ND(4)*	*ND(2)*	ND(2)	**13**	ND(2)	ND(2)	ND(2)	ND(2)
		09/21/20	ND(2)	ND(2)	ND(4)	0.71 J	15	**23**	ND(2)	ND(2)	*ND(4)*	ND(2)	ND(2)	*ND(4)*	*ND(2)*	ND(2)	**13**	ND(2)	ND(2)	ND(2)	ND(2)
		12/15/20	ND(5)	ND(5)	ND(5)	*ND(25)*	10.3	**17.5**	ND(5)	ND(5)	*ND(25)*	ND(5)	ND(5)	*ND(25) UJ*	ND(0.0199) UJ	ND(5)	**11.3**	ND(5)	ND(5)	ND(5)	ND(5)
	MKTF-33	10/24/19	ND(2)	ND(2)	ND(4)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	--	ND(2)	ND(2)	--	*ND(2)*	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)
		02/28/20	ND(2)	ND(2)	ND(4)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	*ND(4)*	ND(2)	1.7 J	*ND(4)*	*ND(2)*	ND(2)	ND(2)	ND(2)	0.38 J	ND(2)	ND(2)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-34	10/29/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	0.51	ND(1)	ND(1)	--	ND(1)	ND(1)	--	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		02/05/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		02/28/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/16/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Selected Screening Levels			5.74	200	10	5	25	7	NA	7	0.0084	70	56	0.0033	0.05	600	5	5	60	NA	370

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-2. VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	1,4-Dichloro-benzene (µg/L)	1,4-Dioxane (µg/L)	2,2-Dichloro-propane (µg/L)	2-Butanone (µg/L)	2-Chlorotoluene (µg/L)	2-Hexanone (µg/L)	4-Chlorotoluene (µg/L)	4-Methyl-2-Pentanone (µg/L)	Acetone (µg/L)	Benzene (µg/L)	Bromobenzene (µg/L)	Bromodichloro-methane (µg/L)	Bromoform (µg/L)	Bromomethane (µg/L)	Carbon Disulfide (µg/L)	Carbon tetrachloride (µg/L)	Chlorobenzene (µg/L)	Chloroethane (µg/L)	Chloroform (µg/L)	Chloromethane (µg/L)	cis-1,2-Dichloro-ethene (µg/L)	Cis-1,3-dichloro-propene (µg/L)	Dibromo-chloromethane (µg/L)	Dibromomethane (µg/L)	Dichlorodifluoro-methane (µg/L)
	MKTF-01	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-02	11/19/2019	ND(5)	--	ND(10)	ND(50)	ND(5)	*ND(50)*	ND(5)	ND(50)	ND(50)	**360**	ND(5)	*ND(5)*	ND(5)	*ND(15)*	ND(50)	ND(5)	ND(5)	ND(10)	ND(5)	ND(15)	3.1	*ND(5)*	*ND(5)*	ND(5)	ND(5)
		2/25/2020	ND(5)	--	ND(10)	ND(50)	ND(5)	*ND(50)*	ND(5)	ND(50)	18J/ND(50)U*	**780**	ND(5)	*ND(5)*	ND(5)	*ND(15)*	ND(50)	ND(5)	ND(5)	ND(10)	ND(5)	ND(15)	ND(5)	*ND(5)*	*ND(5)*	ND(5)	ND(5)
		9/21/2020	ND(1)	--	ND(2)	4.3 J	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	**4000**	ND(1)	ND(1)	ND(1)	*ND(15)*	ND(10)	ND(1)	ND(1)	16	ND(1)	ND(3)	1.9	ND(1)	ND(1)	ND(1)	ND(1)
		12/18/2020	ND(5)	--	ND(5) UJ	ND(125)	ND(5)	*ND(125)*	ND(5)	ND(125)	ND(125)	**885**	--	*ND(5)*	ND(25)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	*ND(25)*	*ND(5)*	*ND(25)*	ND(5)
	MKTF-03	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-04	10/30/2019	ND(5)	--	ND(10)	ND(50)	ND(5)	*ND(50)*	ND(5)	ND(50)	ND(50)	**930**	ND(5)	*ND(5)*	ND(5)	*ND(15)*	ND(50)	ND(5)	ND(5)	ND(10)	ND(5)	ND(15)	ND(5)	*ND(5)*	*ND(5)*	ND(5)	ND(5)
		3/3/2020	ND(5)	--	ND(10)	ND(50)	ND(5)	*ND(50)*	ND(5)	ND(50)	17J/ND(50)U*	**800**	ND(5)	*ND(5)*	ND(5)	*ND(15)*	ND(50)	ND(5)	ND(5)	ND(10)	ND(5)	ND(15)	ND(5)	*ND(5)*	*ND(5)*	ND(5)	ND(5)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-05	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-06	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-07	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-08	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-09	11/18/19	ND(10)	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	ND(100)	**3700**	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(100)	*ND(10)*	ND(10)	ND(20)	ND(10)	*ND(30)*	11	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)
		03/03/20	ND(20)	--	ND(40)	ND(200)	ND(20)	*ND(200)*	ND(20)	ND(200)	ND(200)	**3300**	ND(20)	*ND(20)*	ND(20)	*ND(60)*	ND(200)	*ND(20)*	ND(20)	ND(40)	ND(20)	*ND(60)*	21	*ND(20)*	*ND(20)*	*ND(20)*	ND(20)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-10	10/30/19	ND(10)	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	ND(100)	**5500**	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(100)	*ND(10)*	ND(10)	ND(20)	ND(10)	*ND(30)*	39	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)
		03/03/20	ND(10)	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	40J/ND(100)U*	**4800**	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(100)	*ND(10)*	ND(10)	ND(20)	ND(10)	*ND(30)*	41	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	ND(25)	--	ND(25) UJ	ND(625)	ND(25)	*ND(625)*	ND(25)	ND(625)	ND(625)	**4670**	--	*ND(25)*	*ND(125)*	*ND(25)*	104	*ND(25)*	ND(25)	ND(25)	ND(25)	*ND(25)*	ND(25)	*ND(125)*	*ND(25)*	*ND(125) UJ*	ND(25)
	MKTF-11	10/30/19	ND(20)	--	ND(40)	ND(200)	ND(20)	*ND(200)*	ND(20)	ND(200)	ND(200)	**13000**	ND(20)	*ND(20)*	ND(20)	*ND(60)*	ND(200)	*ND(20)*	ND(20)	ND(40)	ND(20)	*ND(60)*	ND(20)	*ND(20)*	*ND(20)*	*ND(20)*	ND(20)
		03/03/20	ND(20)	--	ND(40)	ND(200)	ND(20)	*ND(200)*	ND(20)	ND(200)	ND(200)	**6000**	ND(20)	*ND(20)*	ND(20)	*ND(60)*	ND(200)	*ND(20)*	ND(20)	ND(40)	ND(20)	*ND(60)*	ND(20)	*ND(20)*	*ND(20)*	*ND(20)*	ND(20)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-12	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-13	10/29/19	ND(20)	--	ND(40)	ND(200)	ND(20)	*ND(200)*	ND(20)	ND(200)	ND(200)	**4700**	ND(20)	*ND(20)*	ND(20)	*ND(60)*	ND(200)	*ND(20)*	ND(20)	ND(40)	ND(20)	*ND(60)*	ND(20)	*ND(20)*	*ND(20)*	*ND(20)*	ND(20)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-14	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-15	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-16	10/30/19	*ND(100)*	--	ND(200)	ND(1000)	ND(100)	*ND(1000)*	ND(100)	ND(1000)	ND(1000)	**15000**	*ND(100)*	*ND(100)*	*ND(100)*	*ND(300)*	*ND(1000)*	*ND(100)*	*ND(100)*	ND(200)	ND(100)	*ND(300)*	*ND(100)*	*ND(100)*	*ND(100)*	*ND(100)*	ND(100)
		1Q2020 - 3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/23/20	*ND(100)*	**19.4**	ND(100)	ND(2500)	ND(100)	*ND(2500)*	ND(100)	ND(2500)	ND(2500)	**14700**	--	*ND(100)*	*ND(500)*	*ND(100)*	ND(100)	*ND(100)*	*ND(100)*	ND(100)	ND(100)	*ND(100)*	*ND(100)*	*ND(500)*	*ND(100)*	*ND(500) UJ*	ND(100)
	MKTF-17	10/29/19	ND(5)	--	ND(10)	ND(50)	ND(5)	8	ND(5)	4.4	ND(50)	**12000**	ND(5)	*ND(5)*	ND(5)	*ND(15)*	ND(50)	ND(5)	ND(5)	ND(10)	ND(5)	ND(15)	ND(5)	*ND(5)*	*ND(5)*	ND(5)	ND(5)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-18	10/29/19	ND(2)	--	ND(4)	ND(20)	ND(2)	ND(20)	ND(2)	ND(20)	ND(20)	**160**	ND(2)	*ND(2)*	ND(2)	ND(6)	ND(20)	ND(2)	ND(2)	ND(4)	ND(2)	ND(6)	ND(2)	ND(2)	*ND(2)*	ND(2)	ND(2)
		02/06/20	ND(2)	--	ND(4)	ND(20)	ND(2)	ND(20)	ND(2)	ND(20)	6.2 J	**190 J-**	ND(2)	*ND(2)*	ND(2)	ND(6)	ND(20)	ND(2)	ND(2)	ND(4)	ND(2)	ND(6)	2.3	ND(2)	ND(2)	*ND(2)*	ND(2)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	ND(2)	--	ND(2)	ND(50)	ND(2)	*ND(50)*	ND(2)	ND(50)	ND(50)	**371**	--	*ND(2)*	ND(10)	ND(2) UJ	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	*ND(10)*	*ND(2)*	*ND(10)*	ND(2)
	MKTF-19	10/29/19	ND(20)	--	ND(40)	ND(200)	ND(20)	*ND(200)*	ND(20)	ND(200)	ND(200)	**1600**	ND(20)	*ND(20)*	ND(20)	*ND(60)*	ND(200)	*ND(20)*	ND(20)	ND(40)	ND(20)	*ND(60)*	ND(20)	*ND(20)*	*ND(20)*	*ND(20)*	ND(20)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-20	11/05/19	ND(10)	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	33	**2400**	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(100)	*ND(10)*	ND(10)	ND(20)	ND(10)	*ND(30)*	ND(10)	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)
		02/05/20	ND(10)	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	19 J	**620 J-**	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(100)	*ND(10)*	ND(10)	ND(20)	ND(10)	*ND(30)*	ND(10)	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-21	11/05/19	ND(20)	--	ND(40)	ND(200)	ND(20)	*ND(200)*	ND(20)	ND(200)	ND(200)	**5600**	ND(20)	*ND(20)*	ND(20)	*ND(60)*	ND(200)	*ND(20)*	ND(20)	ND(40)	ND(20)	*ND(60)*	ND(20)	*ND(20)*	*ND(20)*	*ND(20)*	ND(20)
Marketing		02/05/20	ND(5)	--	ND(10)	ND(50)	ND(5)	*ND(50)*	ND(5)	5.2 J	22 J	**58**	ND(5)	*ND(5)*	ND(5)	*ND(15)*	ND(50)	ND(5)	ND(5)	ND(10)	9.7	ND(15)	ND(5)	*ND(5)*	*ND(5)*	ND(5)	ND(5)
Tank Farm		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Area	MKTF-22	10/24/19	ND(20)	--	ND(40)	ND(200)	ND(20)	*ND(200)*	ND(20)	ND(200)	ND(200)	**3400**	ND(20)	*ND(20)*	ND(20)	*ND(60)*	ND(200)	*ND(20)*	ND(20)	ND(40)	ND(20)	*ND(60)*	ND(20)	*ND(20)*	*ND(20)*	*ND(20)*	ND(20)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-23	10/29/19	*ND(100)*	--	ND(200)	ND(1000)	ND(100)	*ND(1000)*	ND(100)	ND(1000)	ND(1000)	**4800**	*ND(100)*	*ND(100)*	*ND(100)*	*ND(300)*	*ND(1000)*	*ND(100)*	*ND(100)*	ND(200)	ND(100)	*ND(300)*	*ND(100)*	*ND(100)*	*ND(100)*	*ND(100)*	ND(100)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-24	10/23/19	ND(20)	--	ND(40)	ND(200)	ND(20)	*ND(200)*	ND(20)	ND(200)	ND(200)	**5000**	ND(20)	*ND(20)*	ND(20)	*ND(60)*	ND(200)	*ND(20)*	ND(20)	ND(40)	ND(20)	*ND(60)*	ND(20)	*ND(20)*	*ND(20)*	*ND(20)*	ND(20)
		02/25/20	ND(20)	--	ND(40)	ND(200)	ND(20)	*ND(200)*	ND(20)	ND(200)	50J/ND(200)U*	**2900**	ND(20)	*ND(20)*	ND(20)	*ND(60)*	ND(200)	*ND(20)*	ND(20)	ND(40)	ND(20)	*ND(60)*	ND(20)	*ND(20)*	*ND(20)*	*ND(20)*	ND(20)
		09/19/20	ND(20)	--	ND(40)	ND(200)	ND(20)	*ND(200)*	ND(20)	ND(200)	ND(200)	**6100**	ND(20)	*ND(20)*	ND(20)	*ND(60)*	ND(200)	*ND(20)*	ND(20)	27 J	ND(20)	*ND(60)*	ND(20)	*ND(20)*	*ND(20)*	*ND(20)*	ND(20)
		12/18/20	ND(25)	--	ND(25) UJ	ND(625)	ND(25)	*ND(625)*	ND(25)	ND(625)	ND(625)	**5020**	--	*ND(25)*	*ND(125)*	*ND(25)*	ND(25)	ND(25)	ND(25)	ND(25)	ND(25)	*ND(25)*	ND(25)	*ND(125)*	*ND(25)*	*ND(125)*	ND(25)
	MKTF-25	10/23/19	ND(5)	--	ND(10)	ND(50)	ND(5)	*ND(50)*	ND(5)	ND(50)	ND(50)	**370**	ND(5)	*ND(5)*	ND(5)	*ND(15)*	ND(50)	ND(5)	ND(5)	ND(10)	ND(5)	ND(15)	27	*ND(5)*	*ND(5)*	ND(5)	ND(5)
		02/27/20	ND(5)	--	ND(10)	ND(50)	ND(5)	*ND(50)*	ND(5)	ND(50)	16J/ND(50)U*	**420**	ND(5)	*ND(5)*	ND(5)	*ND(15)*	ND(50)	ND(5)	ND(5)	ND(10)	ND(5)	ND(15)	27	*ND(5)*	*ND(5)*	ND(5)	ND(5)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	ND(5)	--	ND(5) UJ	ND(125)	ND(5)	*ND(125)*	ND(5)	ND(125)	211	**629**	--	*ND(5)*	ND(25)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	14.9	*ND(25)*	*ND(5)*	*ND(25)*	ND(5)
	MKTF-26	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-27	10/23/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	2.2	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		02/25/20	ND(1)	--	ND(2)	2.6J/ND(10)U'	ND(1)	ND(10)	ND(1)	ND(10)	6J/ND(10)U*	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/20/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	4.4J/ND(10)U*	0.86 J	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/18/20	ND(1)	--	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	ND(1)	--	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1)
	MKTF-28	10/22/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		02/25/20	ND(1)	--	ND(2)	4.2J/ND(10)U'	ND(1)	ND(10)	ND(1)	ND(10)	17 JB	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/20/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/18/20	ND(1)	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	ND(1)	--	ND(1)	ND(5)	ND(1) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5) UJ*	ND(1)	ND(5)	ND(1) UJ
	MKTF-29	10/22/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		02/25/20	ND(1)	--	ND(2)	3J/ND(10)U*	ND(1)	ND(10)	ND(1)	ND(10)	7.5J/ND(10)U*	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/20/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/15/20	ND(1)	--	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	ND(1)	--	ND(1)	ND(5) UJ	ND(1) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1) UJ	ND(1)	*ND(5)*	ND(1) UJ	ND(5)	ND(1) UJ
	MKTF-30	10/23/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	4.3	ND(1)	ND(1)	ND(1)	ND(1)
		02/27/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	3.3J/ND(10)U*	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	4	ND(1)	ND(1)	ND(1)	ND(1)
		09/20/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	2.8J/ND(10)U*	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	2.8	ND(1)	ND(1)	ND(1)	ND(1)
		12/15/20	ND(1)	--	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	ND(1)	--	ND(1)	ND(5) UJ	ND(1) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1) UJ	1.75	*ND(5)*	ND(1) UJ	ND(5)	ND(1) UJ
	MKTF-31	10/22/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	0.6	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	0.48	ND(3)	1.7	ND(1)	ND(1)	ND(1)	ND(1)
		02/25/20	ND(1)	--	ND(2)	2.6J/ND(10)U'	ND(1)	ND(10)	ND(1)	ND(10)	3.5J/ND(10)U*	0.92 J	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	0.47 J	ND(3)	2.2	ND(1)	ND(1)	ND(1)	ND(1)
		09/19/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	0.66 J	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	0.35 J	ND(3)	2.4	ND(1)	ND(1)	ND(1)	ND(1)
		12/18/20	ND(2)	--	ND(2) UJ	ND(50)	ND(2)	*ND(50)*	ND(2)	ND(50)	ND(50)	ND(2)	--	*ND(2)*	ND(10)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	*ND(10)*	*ND(2)*	*ND(10)*	ND(2)
	MKTF-32	10/23/19	ND(2)	--	ND(4)	ND(20)	ND(2)	ND(20)	ND(2)	ND(20)	0.36	ND(2)	ND(2)	*ND(2)*	ND(2)	ND(6)	ND(20)	ND(2)	ND(2)	ND(4)	ND(2)	ND(6)	1.5	ND(2)	*ND(2)*	ND(2)	ND(2)
		02/27/20	ND(2)	--	ND(4)	ND(20)	ND(2)	ND(20)	ND(2)	ND(20)	ND(20)	ND(2)	ND(2)	*ND(2)*	ND(2)	ND(6)	ND(20)	ND(2)	ND(2)	ND(4)	ND(2)	ND(6)	2.1	ND(2)	*ND(2)*	ND(2)	ND(2)
		09/21/20	ND(2)	--	ND(4)	ND(20)	ND(2)	ND(20)	ND(2)	ND(20)	ND(20)	ND(2)	ND(2)	*ND(2)*	ND(2)	ND(6)	ND(20)	ND(2)	ND(2)	ND(4)	ND(2)	ND(6)	2.5	ND(2)	*ND(2)*	ND(2)	ND(2)
		12/15/20	ND(5)	--	ND(5) UJ	ND(125)	ND(5)	*ND(125)*	ND(5)	ND(125)	ND(125)	ND(5)	--	*ND(5)*	ND(25) UJ	ND(5) UJ	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5) UJ	ND(5)	*ND(25)*	*ND(5) UJ*	*ND(25)*	ND(5) UJ
	MKTF-33	10/24/19	ND(2)	--	ND(4)	ND(20)	ND(2)	ND(20)	ND(2)	ND(20)	ND(20)	ND(2)	ND(2)	*ND(2)*	ND(2)	ND(6)	ND(20)	ND(2)	ND(2)	ND(4)	ND(2)	ND(6)	ND(2)	ND(2)	*ND(2)*	ND(2)	ND(2)
		02/28/20	ND(2)	--	ND(4)	ND(20)	ND(2)	ND(20)	ND(2)	ND(20)	14J/ND(20)U*	**82**	ND(2)	*ND(2)*	ND(2)	ND(6)	ND(20)	ND(2)	ND(2)	ND(4)	ND(2)	ND(6)	ND(2)	ND(2)	*ND(2)*	ND(2)	ND(2)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-2. VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Ethylbenzene (µg/L)	Hexachloro-butadiene (µg/L)	Isopropyl-benzene (µg/L)	Methylene Chloride (µg/L)	MTBE (µg/L)	n-Butyl-benzene (µg/L)	n-Propyl-benzene (µg/L)	p-Isopropyl-toluene (µg/L)	sec-Butylbenzene (µg/L)	Styrene (µg/L)	tert-Butyl-benzene (µg/L)	Tetrachloro-ethene (µg/L)	Toluene (µg/L)	trans-1,2-Dichloroethene (µg/L)	trans-1,3-Dichloropropene (µg/L)	Trichloroethene (µg/L)	Trichlorofluor-methane (µg/L)	Vinyl Chloride (µg/L)	Xylenes, Total (µg/L)
	MKTF-01	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-02	11/19/2019	46	*ND(5)*	4.4	*ND(15)*	23	ND(15)	7.8	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	3	ND(5)	*ND(5)*	ND(5)	ND(5)	**17**	ND(7.5)
		2/25/2020	570	*ND(5)*	42	*ND(15)*	9.1	16	150	4.3 J	11	ND(5)	ND(5)	ND(5)	10	ND(5)	*ND(5)*	ND(5)	ND(5)	**5 J**	48
		9/21/2020	520	ND(1)	33	ND(3)	61	12	90	3.7	8.1	0.46 J	ND(1)	ND(1)	33	ND(1)	ND(1)	ND(1)	ND(1)	**27**	6.3
		12/18/2020	161	*ND(25)*	8.53	*ND(25)*	31.7	ND(5)	19.1	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	11.9	ND(5)	*ND(25)*	ND(5)	ND(5)	**24.1**	ND(50)
	MKTF-03	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-04	10/30/2019	**710**	*ND(5)*	28	*ND(15)*	**1800**	ND(15)	61	3.8	4.5	ND(5)	ND(5)	ND(5)	12	ND(5)	*ND(5)*	ND(5)	ND(5)	*ND(5)*	**740**
		3/3/2020	470	*ND(5)*	17	*ND(15)*	**2100**	4.3 J	36	3.3 J	ND(5)	ND(5)	ND(5)	ND(5)	10	ND(5)	*ND(5)*	ND(5)	ND(5)	*ND(5)*	560
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-05	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-06	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-07	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-08	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-09	11/18/19	230	*ND(10)*	15	*ND(30)*	**450**	5.3	34	ND(10)	3.6	ND(10)	ND(10)	*ND(10)*	14	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	69
		03/03/20	190	*ND(20)*	11 J	*ND(60)*	**530**	ND(60)	25	ND(20)	ND(20)	ND(20)	ND(20)	*ND(20)*	1.9J/ND(20)U	ND(20)	*ND(20)*	*ND(20)*	ND(20)	*ND(20)*	55
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-10	10/30/19	**1700**	*ND(10)*	61	*ND(30)*	17	ND(30)	120	6.6	9.9	ND(10)	ND(10)	*ND(10)*	570	ND(10)	*ND(10)*	*ND(10)*	ND(10)	**10**	**7200**
		03/03/20	**1700**	*ND(10)*	62	*ND(30)*	9.4 J	12 J	110	7.6 J	9.9 J	ND(10)	ND(10)	*ND(10)*	650	ND(10)	*ND(10)*	*ND(10)*	ND(10)	**8.9 J**	**8200**
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	**1800**	*ND(125)*	70.4	*ND(125)*	ND(25)	ND(25)	116	ND(25)	ND(25)	ND(25)	ND(25)	*ND(25)*	284	ND(25)	*ND(125)*	*ND(25)*	ND(25)	*ND(25)*	**8600**
	MKTF-11	10/30/19	**850**	*ND(20)*	25	*ND(60)*	41	ND(60)	58	ND(20)	6.8	ND(20)	ND(20)	*ND(20)*	**1500**	ND(20)	*ND(20)*	*ND(20)*	ND(20)	**23**	**2200**
		03/03/20	320	*ND(20)*	12 J	*ND(60)*	59	ND(60)	21	ND(20)	ND(20)	ND(20)	ND(20)	*ND(20)*	860	ND(20)	*ND(20)*	*ND(20)*	ND(20)	**27**	**1100**
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-12	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-13	10/29/19	600	*ND(20)*	25	*ND(60)*	**330**	ND(60)	41	ND(20)	ND(20)	ND(20)	ND(20)	*ND(20)*	110	ND(20)	*ND(20)*	*ND(20)*	ND(20)	*ND(20)*	**2600**
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-14	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-15	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-16	10/30/19	**1500**	*ND(100)*	21	*ND(300)*	**620**	ND(300)	74	ND(100)	ND(100)	ND(100)	ND(100)	*ND(100)*	95	ND(100)	*ND(100)*	*ND(100)*	ND(100)	*ND(100)*	430
		1Q2020 - 3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/23/20	**1320**	*ND(500)*	ND(100)	*ND(500)*	**279**	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	*ND(100)*	129	ND(100)	*ND(500)*	*ND(100)*	ND(100) UJ	*ND(100)*	*ND(1000)*
	MKTF-17	10/29/19	**1100**	*ND(5)*	42	*ND(15)*	**2500**	ND(15)	85	ND(5)	4.6	1.5	ND(5)	ND(5)	**23000**	ND(5)	*ND(5)*	ND(5)	ND(5)	*ND(5)*	**3100**
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-18	10/29/19	0.83	*ND(2)*	2.1	*ND(6)*	88	0.75	2.6	ND(2)	1.1	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(3)
		02/06/20	ND(2)	*ND(2)*	ND(2)	*ND(6)*	110	ND(6)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	24	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	2.6 J
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	ND(2)	*ND(10)*	ND(2)	*ND(10)*	96.7	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	*ND(10)*	ND(2)	ND(2)	ND(2)	ND(20)
	MKTF-19	10/29/19	610	*ND(20)*	26	*ND(60)*	**7200**	ND(60)	87	ND(20)	ND(20)	ND(20)	ND(20)	*ND(20)*	13	ND(20)	*ND(20)*	*ND(20)*	ND(20)	*ND(20)*	610
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-20	11/05/19	260	*ND(10)*	8.5	*ND(30)*	**170**	2.8	18	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	96
		02/05/20	58	*ND(10)*	ND(10)	*ND(30)*	5.7 J	ND(30)	2.2 J	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	3.9 J	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	530
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-21	11/05/19	**1100**	*ND(20)*	12	*ND(60)*	29	6.5	32	4.4	ND(20)	ND(20)	ND(20)	*ND(20)*	8.2	ND(20)	*ND(20)*	*ND(20)*	ND(20)	*ND(20)*	**2800**
Marketing Tank Farm Area		02/05/20	2.6 J	*ND(5)*	ND(5)	*ND(15)*	50	ND(15)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	*ND(5)*	ND(5)	ND(5)	*ND(5)*	ND(7.5)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-22	10/24/19	270	*ND(20)*	13	*ND(60)*	**2600**	5	27	ND(20)	ND(20)	ND(20)	ND(20)	*ND(20)*	ND(20)	ND(20)	*ND(20)*	*ND(20)*	ND(20)	*ND(20)*	ND(30)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-23	10/29/19	**1200**	*ND(100)*	34	*ND(300)*	**330**	ND(300)	100	ND(100)	ND(100)	ND(100)	ND(100)	*ND(100)*	**8300**	ND(100)	*ND(100)*	*ND(100)*	ND(100)	**53**	**7100**
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-24	10/23/19	310	*ND(20)*	32	*ND(60)*	110	11	64	ND(20)	7.4	ND(20)	ND(20)	*ND(20)*	24	ND(20)	*ND(20)*	*ND(20)*	ND(20)	**37**	ND(30)
		02/25/20	83	*ND(20)*	8.5 J	*ND(60)*	110	ND(60)	13 J	ND(20)	ND(20)	ND(20)	ND(20)	*ND(20)*	11 J	ND(20)	*ND(20)*	*ND(20)*	ND(20)	**28**	ND(30)
		09/19/20	240	*ND(20)*	13 J	*ND(60)*	120	5.5 J	19 J	ND(20)	ND(20)	ND(20)	ND(20)	*ND(20)*	24	ND(20)	*ND(20)*	*ND(20)*	ND(20)	**37**	ND(30)
		12/18/20	223	*ND(125)*	ND(25)	*ND(125)*	98.9	ND(25)	36	ND(25)	ND(25)	ND(25)	ND(25)	*ND(25)*	ND(25)	ND(25)	*ND(125)*	*ND(25)*	ND(25)	**33.2**	ND(250)
	MKTF-25	10/23/19	0.81	*ND(5)*	7.7	*ND(15)*	**880**	ND(15)	3.3	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	*ND(5)*	ND(5)	ND(5)	**3.3**	ND(7.5)
		02/27/20	ND(5)	*ND(5)*	7.7	*ND(15)*	**620**	ND(15)	2.3 J	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	*ND(5)*	ND(5)	**12**	**4.2 J**	ND(7.5)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	ND(5)	*ND(25)*	ND(5)	*ND(25)*	**795**	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	*ND(25)*	**9.7**	ND(5)	*ND(5)*	ND(50)
	MKTF-26	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-27	10/23/19	ND(1)	ND(1)	ND(1)	ND(3)	14	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		02/25/20	ND(1)	ND(1)	ND(1)	ND(3)	6	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/20/20	ND(1)	ND(1)	ND(1)	ND(3)	29	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/18/20	ND(1)	*ND(5)*	ND(1)	ND(5)	4.4	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(10)
	MKTF-28	10/22/19	ND(1)	ND(1)	ND(1)	ND(3)	4.9	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		02/25/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/20/20	ND(1)	ND(1)	ND(1)	ND(3)	2.3	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/18/20	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1) UJ	ND(1)	ND(1)	ND(10)
	MKTF-29	10/22/19	ND(1)	ND(1)	ND(1)	ND(3)	12	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		02/25/20	ND(1)	ND(1)	ND(1)	ND(3)	15	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/20/20	ND(1)	ND(1)	ND(1)	ND(3)	19	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/15/20	ND(1)	*ND(5) UJ*	ND(1)	ND(5)	16	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1) UJ	ND(1)	ND(10)
	MKTF-30	10/23/19	ND(1)	ND(1)	ND(1)	ND(3)	1.5	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	3	ND(1)	ND(1)	ND(1.5)
		02/27/20	ND(1)	ND(1)	ND(1)	ND(3)	2	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	2.6	ND(1)	ND(1)	ND(1.5)
		09/20/20	ND(1)	ND(1)	ND(1)	ND(3)	3.5	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	1.6	ND(1)	ND(1)	ND(1.5)
		12/15/20	ND(1)	*ND(5) UJ*	ND(1)	ND(5)	3.64	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	1.11	ND(1)	ND(1) UJ	ND(10)
	MKTF-31	10/22/19	ND(1)	ND(1)	0.93	0.2	100	ND(3)	ND(1)	ND(1)	0.4	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	4.4	ND(1)	0.46	ND(1.5)
		02/25/20	ND(1)	ND(1)	ND(1)	ND(3)	**180**	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	**5.7**	ND(1)	ND(1)	ND(1.5)
		09/19/20	ND(1)	ND(1)	0.75 J	ND(3)	**190**	0.29 J	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	**5.8**	ND(1)	ND(1)	ND(1.5)
		12/18/20	ND(2)	*ND(10)*	ND(2)	*ND(10)*	**247**	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	*ND(10)*	**5.37**	ND(2)	ND(2)	ND(20)
	MKTF-32	10/23/19	ND(2)	*ND(2)*	ND(2)	*ND(6)*	**670**	ND(6)	ND(2)	ND(2)	0.54	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(3)
		02/27/20	ND(2)	*ND(2)*	ND(2)	*ND(6)*	**900**	ND(6)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(3)
		09/21/20	ND(2)	*ND(2)*	ND(2)	*ND(6)*	**1100**	ND(6)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(3)
		12/15/20	ND(5)	*ND(25) UJ*	ND(5)	*ND(25)*	**897**	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	*ND(25)*	ND(5)	ND(5)	*ND(5) UJ*	ND(50)
	MKTF-33	10/24/19	ND(2)	*ND(2)*	ND(2)	*ND(6)*	**670**	ND(6)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(3)
		02/28/20	ND(2)	*ND(2)*	ND(2)	*ND(6)*	**800**	ND(6)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	2.6 JB	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	15
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-34	10/29/19	ND(1)	ND(1)	ND(1)	ND(3)	0.58	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	1	ND(1)	ND(1)	ND(1.5)
		02/05/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	0.4 J	ND(1)	ND(1)	ND(1.5)
		02/28/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/16/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	0.89 J	ND(1)	ND(1)	ND(1.5)
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Selected Screening Levels			700	1.39	447	5	143	1,000	660	NA	2,000	100	690	5	1,000	100	4.71	5	1,137	2	620

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-2. VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	1,1,1,2-Tetrachloroethane (µg/L)	1,1,1-Trichloroethane (µg/L)	1,1,2,2-Tetrachloroethane (µg/L)	1,1,2-Trichloroethane (µg/L)	1,1-Dichloroethane (µg/L)	1,1-Dichloroethene (µg/L)	1,1-Dichloropropene (µg/L)	1,2,3-Trichlorobenzene (µg/L)	1,2,3-Trichloropropane (µg/L)	1,2,4-Trichloro-benzene (µg/L)	1,2,4-Trimethyl-benzene (µg/L)	1,2-Dibromo-3-chloropropane (µg/L)	1,2-Dibromo-ethane (µg/L)	1,2-Dichloro-benzene (µg/L)	1,2-Dichloro-ethane (µg/L)	1,2-Dichloro-propane (µg/L)	1,3,5-Trimethyl-benzene (µg/L)	1,3-Dichloro-benzene (µg/L)	1,3-Dichloro-propane (µg/L)
Marketing Tank Farm Area	MKTF-35	10/29/19	ND(1)	ND(1)	ND(2)	ND(1)	0.68	ND(1)	ND(1)	ND(1)	--	ND(1)	ND(1)	--	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		02/06/20	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(20)*	ND(10)	**240**	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	52	ND(10)	ND(10)
		09/16/20	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(20)*	ND(10)	**290**	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	7.4 J	ND(10)	ND(10)
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-36	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/18/20	*ND(20) UJ*	ND(20) UJ	*ND(40) UJ*	*ND(20) UJ*	ND(20) UJ	*ND(20) UJ*	ND(20) UJ	*ND(20) UJ*	*ND(40) UJ*	ND(20) UJ	**650 J**	*ND(40) UJ*	*ND(20) UJ*	ND(20) UJ	*ND(20) UJ*	*ND(20) UJ*	**170 J**	ND(20) UJ	ND(20) UJ
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-37	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/17/20	ND(5) UJ	2.3 J	ND(10) UJ	ND(5) UJ	8.1 J	**33 J**	ND(5) UJ	ND(5) UJ	*ND(10) UJ*	ND(5) UJ	**580 J**	*ND(10) UJ*	*ND(5) UJ*	ND(5) UJ	**5.4 J**	ND(5) UJ	30 J	ND(5) UJ	ND(5) UJ
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-38	4Q2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/05/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/19/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-39	11/05/19	ND(1)	ND(1)	ND(2)	ND(1)	0.49	ND(1)	ND(1)	ND(1)	--	ND(1)	1.7	--	*ND(1)*	ND(1)	ND(1)	ND(1)	0.26	ND(1)	ND(1)
		02/05/20	ND(2)	ND(2)	ND(4)	ND(2)	0.45 J	ND(2)	ND(2)	ND(2)	*ND(4)*	ND(2)	3.4	*ND(4)*	*ND(2)*	ND(2)	ND(2)	ND(2)	0.38 J	ND(2)	ND(2)
		09/19/20	ND(2)	ND(2)	ND(4)	ND(2)	0.63 J	ND(2)	ND(2)	ND(2)	*ND(4)*	ND(2)	12	*ND(4)*	*ND(2)*	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)
		12/16/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	6.59	*ND(5)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	MKTF-40	10/22/19	ND(1)	ND(1)	ND(2)	ND(1)	0.76	ND(1)	ND(1)	ND(1)	--	ND(1)	ND(1)	--	*ND(1)*	ND(1)	0.44	ND(1)	ND(1)	ND(1)	ND(1)
		02/28/20	ND(1)	ND(1)	ND(2)	ND(1)	0.64 J	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	0.37 J	ND(1)	ND(1)	ND(1)	ND(1)
		09/19/20	ND(1)	ND(1)	ND(2)	ND(1)	0.79 J	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/17/20	ND(1)	ND(1)	ND(1) UJ	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5) UJ*	ND(1)	ND(1)	*ND(5) UJ*	ND(0.0196) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	MKTF-41	10/23/19	ND(1)	ND(1)	ND(2)	0.63	3.1	3.8	ND(1)	ND(1)	--	ND(1)	0.36	--	*ND(1)*	ND(1)	3	ND(1)	ND(1)	ND(1)	ND(1)
		02/27/20	ND(1)	ND(1)	ND(2)	ND(1)	3.3	**7.6**	ND(1)	ND(1)	*ND(2)*	ND(1)	1.3	*ND(2)*	*ND(1)*	ND(1)	3.1	ND(1)	0.51 J	ND(1)	ND(1)
		09/21/20	ND(1)	ND(1)	ND(2)	0.65 J	5.2	**7.1**	ND(1)	ND(1)	*ND(2)*	ND(1)	1.9	*ND(2)*	*ND(1)*	ND(1)	4.1	ND(1)	0.75 J	ND(1)	ND(1)
		12/15/20	ND(1)	ND(1)	ND(1)	ND(5)	3.34	4.91	ND(1)	ND(1)	*ND(5)*	ND(1)	1.22	*ND(5) UJ*	ND(0.0198) UJ	ND(1)	2.99	ND(1)	ND(1)	ND(1)	ND(1)
	MKTF-42	10/23/19	ND(2)	ND(2)	ND(4)	ND(2)	1.1	0.9	ND(2)	ND(2)	--	ND(2)	6.3	--	*ND(2)*	ND(2)	2.3	ND(2)	2.5	ND(2)	ND(2)
		02/27/20	ND(1)	ND(1)	ND(2)	ND(1)	0.74 J	1.2	ND(1)	ND(1)	*ND(2)*	ND(1)	30	ND(2)	*ND(1)*	ND(1)	2.4	ND(1)	12	ND(1)	ND(1)
		09/21/20	ND(1)	ND(1)	ND(2)	ND(1)	1.2	2.9	ND(1)	ND(1)	*ND(2)*	ND(1)	47	ND(2)	*ND(1)*	ND(1)	4.3	ND(1)	15	ND(1)	ND(1)
		12/16/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	2.07	ND(1)	ND(1)	*ND(5)*	ND(1)	12.1 J	*ND(5)*	**0.183 J**	ND(1)	ND(1)	ND(1)	4.15 J	ND(1)	ND(1)
	MKTF-43	10/24/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	--	ND(1)	ND(1)	--	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		02/27/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/21/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/15/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	*ND(5) UJ*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	MKTF-44	10/24/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	--	ND(1)	ND(1)	--	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		03/05/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/21/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/23/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	*ND(5) UJ*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	MKTF-45	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-46	4Q2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/06/20	ND(1)	ND(1)	ND(2)	ND(1)	0.67 J	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/17/20	ND(1) UJ	ND(1) UJ	ND(2) UJ	ND(1) UJ	0.51 J	ND(1) UJ	ND(1) UJ	ND(1) UJ	*ND(2) UJ*	ND(1) UJ	ND(1) UJ	*ND(2) UJ*	*ND(1) UJ*	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ
		12/16/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	*ND(5)*	ND(0.0197) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	MKTF-47	03/06/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-48	2Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-49	03/05/20	ND(5)	ND(5)	ND(10)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	*ND(10)*	ND(5)	**690**	*ND(10)*	*ND(5)*	ND(5)	ND(5)	ND(5)	**210**	ND(5)	ND(5)
		09/20/20	*ND(50)*	ND(50)	*ND(100)*	*ND(50)*	*ND(50)*	*ND(50)*	ND(50)	*ND(50)*	*ND(100)*	ND(50)	**750**	*ND(100)*	*ND(50)*	ND(50)	*ND(50)*	*ND(50)*	**240**	ND(50)	ND(50)
		12/23/20	*ND(100)*	ND(100)	*ND(100)*	*ND(500)*	*ND(100)*	*ND(100)*	ND(100)	*ND(100)*	*ND(500)*	*ND(100)*	**637**	*ND(500)*	*ND(100)*	ND(100)	*ND(100)*	*ND(100)*	**216**	ND(100)	ND(100)
	MKTF-50	03/05/20	ND(5)	ND(5)	ND(10)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	*ND(10)*	ND(5)	30 J	*ND(10)*	*ND(5)*	ND(5)	ND(5)	ND(5)	11 J	ND(5)	ND(5)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	*ND(20)*	ND(20)	*ND(20)*	*ND(100)*	ND(20)	*ND(20)*	ND(20)	*ND(20)*	*ND(100)*	ND(20)	**107**	*ND(100)*	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	38.3	ND(20)	ND(20)
	Selected Screening Levels		5.74	200	10	5	25	7	NA	7	0.0084	70	56	0.0033	0.05	600	5	5	60	NA	370

TABLE 4-2. VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	1,4-Dichloro-benzene (µg/L)	1,4-Dioxane (µg/L)	2,2-Dichloro-propane (µg/L)	2-Butanone (µg/L)	2-Chlorotoluene (µg/L)	2-Hexanone (µg/L)	4-Chlorotoluene (µg/L)	4-Methyl-2-Pentanone (µg/L)	Acetone (µg/L)	Benzene (µg/L)	Bromobenzene (µg/L)	Bromodichloro-methane (µg/L)	Bromoform (µg/L)	Bromomethane (µg/L)	Carbon Disulfide (µg/L)	Carbon tetrachloride (µg/L)	Chlorobenzene (µg/L)	Chloroethane (µg/L)	Chloroform (µg/L)	Chloromethane (µg/L)	cis-1,2-Dichloro-ethene (µg/L)	Cis-1,3-dichloro-propene (µg/L)	Dibromo-chloromethane (µg/L)	Dibromomethane (µg/L)	Dichlorodifluoro-methane (µg/L)
Marketing Tank Farm Area	MKTF-35	10/29/19	4.1	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	**56**	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		02/06/20	3.7 J	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	ND(100)	**6100**	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(100)	*ND(10)*	ND(10)	ND(20)	ND(10)	*ND(30)*	ND(10)	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)
		09/16/20	3.1 J	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	27J/ND(100)U*	**4000**	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(100)	*ND(10)*	ND(10)	ND(20)	ND(10)	*ND(30)*	ND(10)	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-36	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/18/20	ND(20) UJ	--	ND(40) UJ	ND(200) UJ	ND(20) UJ	*ND(200) UJ*	ND(20) UJ	ND(200) UJ	ND(200) UJ	**9700 J**	ND(20) UJ	*ND(20) UJ*	ND(20) UJ	*ND(60) UJ*	ND(200) UJ	*ND(20) UJ*	ND(20) UJ	ND(40) UJ	ND(20) UJ	*ND(60) UJ*	ND(20) UJ	*ND(20) UJ*	*ND(20) UJ*	*ND(20) UJ*	ND(20) UJ
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-37	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/17/20	ND(5) UJ	--	ND(10) UJ	ND(50) UJ	ND(5) UJ	*ND(50) UJ*	ND(5) UJ	ND(50) UJ	ND(50) UJ	**1300 J**	ND(5) UJ	*ND(5) UJ*	ND(5) UJ	*ND(15) UJ*	ND(50) UJ	ND(5) UJ	ND(5) UJ	ND(10) UJ	ND(5) UJ	ND(15) UJ	ND(5) UJ	*ND(5) UJ*	*ND(5) UJ*	ND(5) UJ	ND(5) UJ
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-38	4Q2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/05/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	3.6J/ND(10)U*	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	0.53 J	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/19/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	0.8 J	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-39	11/05/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	**10**	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		02/05/20	ND(2)	--	ND(4)	ND(20)	ND(2)	ND(20)	ND(2)	ND(20)	3.6 J	**9.4**	ND(2)	*ND(2)*	ND(2)	ND(6)	ND(20)	ND(2)	ND(2)	ND(4)	ND(2)	ND(6)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)
		09/19/20	ND(2)	--	ND(4)	ND(20)	ND(2)	ND(20)	ND(2)	ND(20)	ND(20)	**18**	ND(2)	*ND(2)*	ND(2)	ND(6)	ND(20)	ND(2)	ND(2)	ND(4)	ND(2)	ND(6)	ND(2)	ND(2)	*ND(2)*	ND(2)	ND(2)
		12/16/20	ND(1)	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	**14.4**	--	ND(1)	ND(5)	ND(1) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1)
	MKTF-40	10/22/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	0.19	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		02/28/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	4J/ND(10)U*	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/19/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/17/20	ND(1)	--	ND(1)	ND(25)	ND(1)	ND(25) UJ	ND(1)	ND(25)	ND(25)	ND(1)	--	ND(1)	ND(5) UJ	ND(1) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5) UJ*	ND(1)	ND(5)	ND(1) UJ
	MKTF-41	10/23/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	0.2	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		02/27/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	3.9J/ND(10)U*	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	0.2 J	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/21/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/15/20	ND(1)	--	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	ND(1)	--	ND(1)	ND(5) UJ	ND(1) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1) UJ	ND(1)	*ND(5)*	ND(1) UJ	ND(5)	ND(1) UJ
	MKTF-42	10/23/19	ND(2)	--	ND(4)	ND(20)	ND(2)	ND(20)	ND(2)	ND(20)	15	**11**	ND(2)	*ND(2)*	ND(2)	ND(6)	ND(20)	ND(2)	ND(2)	ND(4)	ND(2)	ND(6)	ND(2)	ND(2)	*ND(2)*	ND(2)	ND(2)
		02/27/20	ND(1)	--	ND(2)	4.3 J	ND(1)	ND(10)	ND(1)	4 J	12 JB	**22**	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/21/20	ND(1)	--	ND(2)	2.5 J	ND(1)	ND(10)	ND(1)	3.1 J	12 JB	**29**	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/16/20	ND(1)	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	27.1	**14.2 J**	--	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1)
	MKTF-43	10/24/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	0.6	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		02/27/20	ND(1)	--	ND(2)	4.7 J	ND(1)	ND(10)	ND(1)	ND(10)	6.6J/ND(10)U*	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	0.6 J	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/21/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	0.36 J	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/15/20	ND(1)	--	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	ND(1)	--	ND(1)	ND(5) UJ	ND(1) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1) UJ	ND(1)	*ND(5)*	ND(1) UJ	ND(5)	ND(1) UJ
	MKTF-44	10/24/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		03/05/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	3.6J/ND(10)U*	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/21/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/23/20	ND(1)	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	ND(1)	--	ND(1)	ND(5) UJ	ND(1) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1) UJ	ND(5)	ND(1)
	MKTF-45	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-46	4Q2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/06/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	3.5J/ND(10)U*	0.4 J	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/17/20	ND(1) UJ	--	ND(2) UJ	ND(10) UJ	ND(1) UJ	ND(10) UJ	ND(1) UJ	ND(10) UJ	ND(10) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(3) UJ	ND(10) UJ	ND(1) UJ	ND(1) UJ	ND(2) UJ	ND(1) UJ	ND(3) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ
		12/16/20	ND(1)	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	ND(1)	--	ND(1)	ND(5)	ND(1) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1)
	MKTF-47	03/06/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	3.4J/ND(10)U*	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	0.23 J	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-48	2Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-49	03/05/20	ND(5)	--	ND(10)	26 J	ND(5)	*ND(50)*	ND(5)	7.9 J	32J/ND(50)U*	**20000**	ND(5)	*ND(5)*	ND(5)	*ND(15)*	ND(50)	ND(5)	ND(5)	ND(10)	ND(5)	ND(15)	ND(5)	*ND(5)*	*ND(5)*	ND(5)	ND(5)
		09/20/20	ND(50)	--	ND(100)	ND(500)	ND(50)	*ND(500)*	ND(50)	ND(500)	ND(500)	**23000**	ND(50)	*ND(50)*	*ND(50)*	*ND(150)*	ND(500)	*ND(50)*	ND(50)	ND(100)	ND(50)	*ND(150)*	ND(50)	*ND(50)*	*ND(50)*	*ND(50)*	ND(50)
	MKTF-50	03/05/20	ND(5)	--	ND(10)	ND(50)	ND(5)	*ND(50)*	ND(5)	ND(50)	29J/ND(50)U*	**12000**	ND(5)	*ND(5)*	ND(5)	ND(15)	ND(50)	ND(5)	ND(5)	ND(10)	ND(5)	ND(15)	ND(5)	*ND(5)*	*ND(5)*	ND(5)	ND(5)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	ND(20)	--	ND(20)	ND(500)	ND(20)	*ND(500)*	ND(20)	ND(500)	ND(500)	**5970**	--	*ND(20)*	*ND(100) UJ*	*ND(20)*	ND(20)	*ND(20)*	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	*ND(100)*	*ND(20) UJ*	*ND(100)*	ND(20) UJ
Selected Screening Levels			75	4.59	NA	5,565	240	38	250	6,300	14,064	5	62	1.34	32.9	7.54	810	5	77.6	21,000	100	20.32	70	4.71	1.68	8	197

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-2. VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Ethylbenzene (µg/L)	Hexachloro-butadiene (µg/L)	Isopropyl-benzene (µg/L)	Methylene Chloride (µg/L)	MTBE (µg/L)	n-Butyl-benzene (µg/L)	n-Propyl-benzene (µg/L)	p-Isopropyl-toluene (µg/L)	sec-Butylbenzene (µg/L)	Styrene (µg/L)	tert-Butyl-benzene (µg/L)	Tetrachloro-ethene (µg/L)	Toluene (µg/L)	trans-1,2-Dichloroethene (µg/L)	trans-1,3-Dichloropropene (µg/L)	Trichloroethene (µg/L)	Trichlorofluor-methane (µg/L)	Vinyl Chloride (µg/L)	Xylenes, Total (µg/L)
Marketing Tank Farm Area	MKTF-35	10/29/19 [illegible]	2.2	ND(1)	0.43	ND(3)	120	ND(3)	0.29	ND(1)	1.3	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		02/06/20	**800**	*ND(10)*	17	*ND(30)*	**320**	ND(30)	37	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	**5300**	ND(10)	*ND(10)*	*ND(10)*	*ND(10)*	*ND(10)*	**1800**
		09/16/20	640	*ND(10)*	20	*ND(30)*	**160**	ND(30)	54	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	130	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	**910**
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-36	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/18/20	**2100 J**	*ND(20) UJ*	73 J	*ND(60) UJ*	**940 J**	22 J	190 J	4.2 J	13 J	3.3 J	ND(20) UJ	*ND(20) UJ*	**22000 J**	ND(20) UJ	*ND(20) UJ*	*ND(20) UJ*	ND(20) UJ	*ND(20) UJ*	**4400 J**
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-37	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/17/20	81 J	*ND(5) UJ*	71 J	*ND(15) UJ*	33 J	39 J	89 J	7.1 J	14 J	ND(5) UJ	ND(5) UJ	ND(5) UJ	26 J	ND(5) UJ	*ND(5) UJ*	**96 J**	ND(5) UJ	*ND(5) UJ*	420 J
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-38	4Q2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/05/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	**1300**	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/19/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	0.57 J	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-39	11/05/19	41	ND(1)	19	ND(3)	ND(1)	5.5	26	0.98	13	ND(1)	0.45	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	1.4
		02/05/20	38	*ND(2)*	16	*ND(6)*	ND(2)	5.1 J	22	0.93 J	11	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(3)
		09/19/20	43	*ND(2)*	19	*ND(6)*	ND(2)	7.3	27	2.1	15	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	0.44 J	ND(3)
		12/16/20	33.4	*ND(5)*	12.2	ND(5)	ND(1)	3.32	16.1	1.09	7.74	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(10)
	MKTF-40	10/22/19	ND(1)	ND(1)	ND(1)	ND(3)	0.72	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		02/28/20	ND(1)	ND(1)	ND(1)	ND(3)	0.76 J	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/19/20	ND(1)	ND(1)	ND(1)	ND(3)	0.58 J	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/17/20	ND(1)	*ND(5)*	ND(1)	ND(5)	1.03	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1) UJ	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(10)
	MKTF-41	10/23/19	ND(1)	ND(1)	ND(1)	ND(3)	1.3	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		02/27/20	ND(1)	ND(1)	ND(1)	ND(3)	1.2	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	2.8
		09/21/20	0.36 J	ND(1)	ND(1)	ND(3)	1	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	4.3
		12/15/20	ND(1)	*ND(5) UJ*	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	ND(1) UJ	ND(10)
	MKTF-42	10/23/19	1.1	*ND(2)*	0.43	*ND(6)*	4.4	ND(6)	0.7	0.97	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	21
		02/27/20	3.7	ND(1)	2.5	ND(3)	4.2	0.8 J	2.8	2.1	0.87 J	ND(1)	ND(1)	ND(1)	).99J/ND(1)U	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	70
		09/21/20	3.7	ND(1)	3.3	ND(3)	3.5	1.4 J	3.9	1.6	1.2	ND(1)	ND(1)	ND(1)	1.1	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	80
		12/16/20	1.25 J	*ND(5)*	1.11 J	ND(5)	2.51	ND(1)	1.36 J	2.22	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	ND(1)	26.5 J
	MKTF-43	10/24/19	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		02/27/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/21/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/15/20	ND(1)	*ND(5) UJ*	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	ND(1) UJ	ND(10)
	MKTF-44	10/24/19	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		03/05/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/21/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/23/20	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5) UJ*	ND(1)	ND(1)	ND(1)	ND(10)
	MKTF-45	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-46	4Q2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/06/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/17/20	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(3) UJ	ND(1) UJ	ND(3) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1.5) UJ
		12/16/20	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(10)
	MKTF-47	03/06/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-48	2Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-49	03/05/20	**1300**	*ND(5)*	120	*ND(15)*	11	9.7 J	120	16	16	ND(5)	ND(5)	ND(5)	**8400**	ND(5)	*ND(5)*	ND(5)	ND(5)	*ND(5)*	**6800**
		09/20/20	**1500**	*ND(50)*	130	*ND(150)*	ND(50)	ND(150)	130	14 J	ND(50)	ND(50)	ND(50)	*ND(50)*	**9900**	ND(50)	*ND(50)*	*ND(50)*	ND(50)	*ND(50)*	**7500**
	MKTF-50	03/05/20	**1300**	*ND(5)*	82	*ND(15)*	4.5 J	13 J	130	1.7 J	13	ND(5)	ND(5)	ND(5)	42	ND(5)	*ND(5)*	ND(5)	ND(5)	*ND(5)*	81 J
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	**1130**	*ND(100)*	61.1	*ND(100)*	22.5	ND(20)	102	ND(20)	ND(20)	ND(20)	ND(20)	*ND(20)*	27.3	ND(20)	*ND(100)*	*ND(20)*	ND(20) UJ	*ND(20)*	286
	Selected Screening Levels		700	1.39	447	5	143	1,000	660	NA	2,000	100	690	5	1,000	100	4.71	5	1,137	2	620
		12/23/20	**1430**	*ND(500)*	116	*ND(500)*	ND(100)	ND(100)	123	ND(100)	ND(100)	ND(100)	ND(100)	*ND(100)*	**10000**	ND(100)	*ND(500)*	*ND(100)*	ND(100) UJ	*ND(100)*	**7450**

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-2. VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	1,1,1,2-Tetrachloroethane (µg/L)	1,1,1-Trichloroethane (µg/L)	1,1,2,2-Tetrachloroethane (µg/L)	1,1,2-Trichloroethane (µg/L)	1,1-Dichloroethane (µg/L)	1,1-Dichloroethene (µg/L)	1,1-Dichloropropene (µg/L)	1,2,3-Trichlorobenzene (µg/L)	1,2,3-Trichloropropane (µg/L)	1,2,4-Trichloro-benzene (µg/L)	1,2,4-Trimethyl-benzene (µg/L)	1,2-Dibromo-3-chloropropane (µg/L)	1,2-Dibromo-ethane (µg/L)	1,2-Dichloro-benzene (µg/L)	1,2-Dichloro-ethane (µg/L)	1,2-Dichloro-propane (µg/L)	1,3,5-Trimethyl-benzene (µg/L)	1,3-Dichloro-benzene (µg/L)	1,3-Dichloro-propane (µg/L)
Wastewater Treatment Area	KA-3	10/21/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	--	ND(1)	ND(1)	--	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		03/04/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/22/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/17/20	ND(1)	ND(1) UJ	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	*ND(5)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	LDU - East	11/19/19	ND(5)	ND(5)	ND(10)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	--	ND(5)	45	--	*ND(5)*	ND(5)	ND(5)	ND(5)	19	ND(5)	ND(5)
		03/10/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		3Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
		12/17/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5) UJ*	ND(1)	32.2	*ND(5) UJ*	*ND(1)*	ND(1)	ND(1)	ND(1)	24.1	ND(1)	ND(1)
	LDU - West	11/19/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	--	ND(1)	ND(1)	--	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		03/10/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		3Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
		12/17/20	ND(1)	ND(1) UJ	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	9.55	*ND(5)*	*ND(1)*	ND(1)	ND(1)	ND(1)	5.52	ND(1)	ND(1)
	NAPIS-1	4Q2019 - 3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/07/20	ND(1)	ND(1) UJ	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	9.55	*ND(5)*	*ND(1)*	ND(1)	ND(1)	ND(1)	5.52	ND(1)	ND(1)
	NAPIS-2	10/21/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	--	ND(1)	ND(1)	--	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		03/04/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	0.59 J	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/22/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/17/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5) UJ*	ND(1)	ND(1)	*ND(5) UJ*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	NAPIS-3	10/21/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	--	ND(1)	ND(1)	--	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		03/04/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/22/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/17/20	ND(1)	ND(1) UJ	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	*ND(5)*	ND(0.0203) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	OAPIS-1	10/21/19	ND(1)	ND(1)	ND(2)	ND(1)	1.1	ND(1)	ND(1)	ND(1)	--	ND(1)	9.4	--	*ND(1)*	ND(1)	0.53	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		03/04/20	ND(1)	ND(1)	ND(2)	ND(1)	0.86 J	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	1.9	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/22/20	ND(1)	ND(1)	ND(2)	ND(1)	1.3	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	2.2	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/17/20	ND(1)	ND(1)	ND(1)	ND(5)	1.04	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	*ND(5)*	ND(0.0198) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	STP1-NW	10/22/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	--	ND(1)	ND(1)	--	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		03/04/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		9/15/2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		12/23/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	*ND(5)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	STP1-SW	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
	Oil Sump LDU	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	GWM-2	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	GWM-3	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-59	10/15/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	--	ND(1)	ND(1)	--	*ND(1)*	ND(1)	0.39	ND(1)	ND(1)	ND(1)	ND(1)
		03/03/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/19/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/23/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	*ND(5) UJ*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	OW-60	10/15/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	--	ND(1)	ND(1)	--	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		03/03/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/21/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/11/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	*ND(5)*	ND(0.0205) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	MW-1	09/20/17	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	ND(1)	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		09/13/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	ND(1)	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		12/06/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	ND(1)	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		08/12/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/22/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	MW-2	09/20/17	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	ND(1)	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		09/13/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	ND(1)	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		12/06/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	ND(1)	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		08/13/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/19/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	MW-4	09/21/17	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	ND(1)	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		09/13/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	ND(1)	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		12/06/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	ND(1)	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
Land Treatment Unit		08/13/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/18/20	ND(1) UJ	ND(1) UJ	ND(2) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	*ND(2) UJ*	ND(1) UJ	ND(1) UJ	*ND(2) UJ*	*ND(1) UJ*	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ
	MW-5	09/11/17	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	ND(1)	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		09/17/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	ND(1)	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		12/06/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	ND(1)	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		08/14/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/21/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	SMW-2	09/11/17	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	ND(1)	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		09/18/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	ND(1)	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		08/22/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/19/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	SMW-4	09/11/17	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	ND(1)	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		09/12/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	ND(1)	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		12/06/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	ND(1)	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		08/13/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/20/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	Selected Screening Levels		5.74	200	10	5	25	7	NA	7	0.0084	70	56	0.0033	0.05	600	5	5	60	NA	370

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-2. VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	1,4-Dichloro-benzene (µg/L)	1,4-Dioxane (µg/L)	2,2-Dichloro-propane (µg/L)	2-Butanone (µg/L)	2-Chlorotoluene (µg/L)	2-Hexanone (µg/L)	4-Chlorotoluene (µg/L)	4-Methyl-2-Pentanone (µg/L)	Acetone (µg/L)	Benzene (µg/L)	Bromobenzene (µg/L)	Bromodichloro-methane (µg/L)	Bromoform (µg/L)	Bromomethane (µg/L)	Carbon Disulfide (µg/L)	Carbon tetrachloride (µg/L)	Chlorobenzene (µg/L)	Chloroethane (µg/L)	Chloroform (µg/L)	Chloromethane (µg/L)	cis-1,2-Dichloro-ethene (µg/L)	Cis-1,3-dichloro-propene (µg/L)	Dibromo-chloromethane (µg/L)	Dibromomethane (µg/L)	Dichlorodifluoro-methane (µg/L)
	RA-3	10/21/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	**57**	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		03/04/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	3.5J/ND(10)U*	**98**	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/22/20	--	--	--	--	--	--	--	--	--	**310**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/17/20	ND(1)	--	ND(1) UJ	ND(25)	ND(1)	ND(25) UJ	ND(1)	ND(25) UJ	ND(25) UJ	ND(1)	--	ND(1)	ND(5)	ND(1) UJ	ND(1)	ND(1) UJ	ND(1)	ND(1) UJ	ND(1)	ND(1) UJ	ND(1)	*ND(5)*	ND(1)	ND(1)	ND(1)
	LDU - East	11/19/19	ND(5)	--	ND(10)	ND(50)	ND(5)	*ND(50)*	ND(5)	ND(50)	ND(50)	**1300**	ND(5)	*ND(5)*	ND(5)	*ND(15)*	ND(50)	ND(5)	ND(5)	ND(10)	ND(5)	ND(15)	ND(5)	*ND(5)*	*ND(5)*	ND(5)	ND(5)
		03/10/20	--	--	--	--	--	--	--	--	--	**620**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		3Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
		12/17/20	ND(1)	--	ND(1) UJ	35.1	ND(1)	ND(25)	ND(1)	ND(25)	295	**285**	--	ND(1)	ND(5)	ND(1)	43.1	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(5) UJ	ND(1)
	LDU - West	11/19/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	2.3	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		03/10/20	--	--	--	--	--	--	--	--	--	**150**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		3Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
		12/17/20	ND(1)	--	ND(1) UJ	ND(25)	ND(1)	ND(25) UJ	ND(1)	ND(25) UJ	ND(25) UJ	**66.5**	NS - SPH	ND(1)	ND(5)	ND(1) UJ	ND(1)	ND(1) UJ	ND(1)	ND(1) UJ	ND(1)	ND(1) UJ	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1)
	NAPIS-1	4Q2019 - 3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/07/20	ND(1)	--	ND(1) UJ	ND(25)	ND(1)	ND(25) UJ	ND(1)	ND(25) UJ	ND(25) UJ	**66.5**	--	ND(1)	ND(5)	ND(1) UJ	ND(1)	ND(1) UJ	ND(1)	ND(1) UJ	ND(1)	ND(1) UJ	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1)
Wastewater Treatment Area	NAPIS-2	10/21/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	**210**	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		03/04/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	7.3J/ND(10)U*	**330**	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/22/20	--	--	--	--	--	--	--	--	--	**290**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/17/20	ND(1)	--	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	**204**	--	ND(1)	ND(5)	ND(1)	8.09	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(5) UJ	ND(1)
	NAPIS-3	10/21/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		03/04/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	2.6J/ND(10)U*	4.7	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/22/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	3.4J/ND(10)U*	1.4	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/17/20	ND(1)	--	ND(1) UJ	ND(25)	ND(1)	ND(25) UJ	ND(1)	ND(25) UJ	ND(25) UJ	**42.8**	--	ND(1)	ND(5)	ND(1) UJ	ND(1)	ND(1) UJ	ND(1)	ND(1) UJ	ND(1)	ND(1) UJ	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1)
	OAPIS-1	10/21/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	**170**	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		03/04/20	ND(1)	--	ND(2)	4.7 J	ND(1)	ND(10)	ND(1)	ND(10)	26 JB	**46**	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/22/20	ND(1)	--	ND(2)	6.9 J	ND(1)	ND(10)	ND(1)	ND(10)	54	**84**	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/17/20	ND(1)	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	27.9	**53.8**	--	ND(1)	ND(5)	ND(1) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1)
	STP1-NW	10/22/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		03/04/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	4.1J/ND(10)U*	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		9/15/2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		12/23/20	ND(1)	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	ND(1)	--	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(5) UJ	ND(1)
	STP1-SW	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
	Oil Sump LDU	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
	GWM-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	GWM-2	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	GWM-3	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-59	10/15/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		03/03/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	3.9J/ND(10)U*	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/19/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	2.4J/ND(10)U*	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
Solid Waste Management Unit 1		12/23/20	ND(1)	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	ND(1)	--	ND(1)	ND(5) UJ	ND(1) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1) UJ	ND(5)	ND(1)
	OW-60	10/15/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	3.8	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		03/03/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	3.6J/ND(10)U*	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/21/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/11/20	ND(1)	--	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	ND(1)	--	ND(1)	ND(5) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1) UJ
	MW-1	09/20/17	--	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	4.4	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/13/18	--	*ND(10)*	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/06/18	--	*ND(50)*	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		08/12/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/22/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	MW-2	09/20/17	--	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	4.3	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/13/18	--	*ND(10)*	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/06/18	--	*ND(50)*	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		08/13/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/19/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	2.8J/ND(10)U*	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	MW-4	09/21/17	--	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	3.7	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/13/18	--	*ND(10)*	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/06/18	--	*ND(50)*	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
Land Treatment Unit		08/13/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/18/20	ND(1) UJ	--	ND(2) UJ	ND(10) UJ	ND(1) UJ	ND(10) UJ	ND(1) UJ	ND(10) UJ	ND(10) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(3) UJ	ND(10) UJ	ND(1) UJ	ND(1) UJ	ND(2) UJ	ND(1) UJ	ND(3) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ
	MW-5	09/11/17	--	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	5	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/17/18	--	*ND(10)*	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	0.99	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/06/18	--	*ND(50)*	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		08/14/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/21/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	13 JB	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	SMW-2	09/11/17	--	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	6.2	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/18/18	--	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	6.7	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		08/22/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	0.23	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/19/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	2.8J/ND(10)U*	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	SMW-4	09/11/17	--	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	3.9	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/12/18	--	*ND(10)*	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	4.5	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/06/18	--	*ND(50)*	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		08/13/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/20/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	Selected Screening Levels		75	4.59	NA	5,565	240	38	250	6,300	14,064	5	62	1.34	32.9	7.54	810	5	77.6	21,000	100	20.32	70	4.71	1.68	8	197

TABLE 4-2. VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Ethylbenzene (µg/L)	Hexachloro-butadiene (µg/L)	Isopropyl-benzene (µg/L)	Methylene Chloride (µg/L)	MTBE (µg/L)	n-Butyl-benzene (µg/L)	n-Propyl-benzene (µg/L)	p-Isopropyl-toluene (µg/L)	sec-Butylbenzene (µg/L)	Styrene (µg/L)	tert-Butyl-benzene (µg/L)	Tetrachloro-ethene (µg/L)	Toluene (µg/L)	trans-1,2-Dichloroethene (µg/L)	trans-1,3-Dichloropropene (µg/L)	Trichloroethene (µg/L)	Trichlorofluor-methane (µg/L)	Vinyl Chloride (µg/L)	Xylenes, Total (µg/L)
Wastewater Treatment Area	RA-3	10/21/19	6.2	ND(1)	0.57	ND(3)	56	ND(3)	0.48	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		03/04/20	2.2	ND(1)	ND(1)	ND(3)	64	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/22/20	27	--	--	--	59	--	--	--	--	--	--	--	ND(1)	--	--	--	--	--	0.64 J
		12/17/20	3.03	*ND(5)*	ND(1)	ND(5)	43.6	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5) UJ*	ND(1)	ND(1)	ND(1)	ND(10)
	LDU - East	11/19/19	82	*ND(5)*	11	*ND(15)*	ND(5)	3.1	14	3.9	3.6	ND(5)	ND(5)	ND(5)	360	ND(5)	*ND(5)*	ND(5)	ND(5)	*ND(5)*	210
		03/10/20	50	--	--	--	ND(5)	--	--	--	--	--	--	--	38	--	--	--	--	--	57
		3Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
		12/17/20	56	*ND(5)*	9.47	ND(5)	3.5	ND(1)	12.1	4.48	4.09	ND(1)	ND(1)	ND(1)	52.1	ND(1)	*ND(5)*	ND(1)	ND(1)	ND(1)	93.2
	LDU - West	11/19/19	ND(1)	ND(1)	ND(1)	ND(3)	2.7	ND(3)	ND(1)	ND(1)	0.37	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	0.22	ND(1)	ND(1)	ND(1.5)
		03/10/20	14	--	--	--	2.1 J	--	--	--	--	--	--	--	41	--	--	--	--	--	44
		3Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
		12/17/20	9.37	*ND(5)*	1.5	ND(5)	1.74	ND(1)	1.22	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	5.91	ND(1)	*ND(5) UJ*	ND(1)	ND(1)	ND(1)	16.1
	NAPIS-1	4Q2019 - 3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/07/20	9.37	*ND(5)*	1.5	ND(5)	1.74	ND(1)	1.22	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	5.91	ND(1)	*ND(5) UJ*	ND(1)	ND(1)	ND(1)	16.1
	NAPIS-2	10/21/19	24	ND(1)	6.6	ND(3)	100	0.53	2.8	ND(1)	2.1	ND(1)	0.34	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		03/04/20	40	ND(1)	6.3	ND(3)	69	0.69 J	3.1	ND(1)	2.1	ND(1)	0.42 J	ND(1)	0.6J/ND(1)UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	2.1
		09/22/20	140	--	--	--	57	--	--	--	--	--	--	--	0.52 J	--	--	--	--	--	1.5
		12/17/20	50.4	*ND(5)*	5.3	ND(5)	73.6	ND(1)	2.04	ND(1)	1.16	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(10)
	NAPIS-3	10/21/19	ND(1)	ND(1)	ND(1)	ND(3)	28	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		03/04/20	3	ND(1)	0.37 J	ND(3)	48	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/22/20	4.6	ND(1)	0.53 J	ND(3)	59	ND(3)	0.21 J	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/17/20	4.13	*ND(5)*	ND(1)	ND(5)	41.9	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5) UJ*	ND(1)	ND(1)	ND(1)	ND(10)
	OAPIS-1	10/21/19	21	ND(1)	2	ND(3)	**250**	ND(3)	2.5	0.67	0.42	ND(1)	ND(1)	ND(1)	1.5	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	7.4
		03/04/20	5.2	ND(1)	0.55 J	ND(3)	**270**	ND(3)	0.64 J	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	):39J/ND(1)U	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	1.7
		09/22/20	11	ND(1)	1.1	ND(3)	**250**	ND(3)	1.3	0.34 J	ND(1)	ND(1)	ND(1)	ND(1)	0.55 J	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	2.9
		12/17/20	5.49	*ND(5)*	ND(1)	ND(5)	**260**	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(10)
	STP1-NW	10/22/19	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		03/04/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		9/15/2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		12/23/20	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1) UJ	ND(1)	ND(10)
	STP1-SW	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
	Oil Sump LDU	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	GWM-2	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	GWM-3	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-59	10/15/19	ND(1)	ND(1)	ND(1)	ND(3)	9.2	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		03/03/20	ND(1)	ND(1)	ND(1)	ND(3)	11	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/19/20	ND(1)	ND(1)	ND(1)	ND(3)	12	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/23/20	ND(1)	*ND(5)*	ND(1)	ND(5)	9.99	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5) UJ*	ND(1)	ND(1)	ND(1)	ND(10)
	OW-60	10/15/19	ND(1)	ND(1)	ND(1)	ND(3)	0.75	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		03/03/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/21/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/11/20	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(10)
	MW-1	09/20/17	ND(1)	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/13/18	ND(1)	--	ND(1)	0.41	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/06/18	ND(1)	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		08/12/19	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/22/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
	MW-2	09/20/17	ND(1)	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/13/18	ND(1)	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/06/18	ND(1)	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		08/13/19	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/19/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
	MW-4	09/21/17	ND(1)	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/13/18	ND(1)	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/06/18	ND(1)	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
Land Treatment Unit		08/13/19	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/18/20	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(3) UJ	ND(1) UJ	ND(3) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1.5) UJ
	MW-5	09/11/17	ND(1)	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/17/18	ND(1)	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/06/18	ND(1)	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		08/14/19	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/21/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
	SMW-2	09/11/17	ND(1)	--	ND(1)	ND(3)	11	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/18/18	ND(1)	--	ND(1)	ND(3)	11	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		08/22/19	ND(1)	ND(1)	ND(1)	ND(3)	12	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/19/20	ND(1)	ND(1)	ND(1)	ND(3)	13	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
	SMW-4	09/11/17	ND(1)	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/12/18	ND(1)	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/06/18	ND(1)	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		08/13/19	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/20/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
	Selected Screening Levels		700	1.39	447	5	143	1,000	660	NA	2,000	100	690	5	1,000	100	4.71	5	1,137	2	620

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-2. VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	1,1,1,2-Tetrachloroethane (µg/L)	1,1,1-Trichloroethane (µg/L)	1,1,2,2-Tetrachloroethane (µg/L)	1,1,2-Trichloroethane (µg/L)	1,1-Dichloroethane (µg/L)	1,1-Dichloroethene (µg/L)	1,1-Dichloropropene (µg/L)	1,2,3-Trichlorobenzene (µg/L)	1,2,3-Trichloropropane (µg/L)	1,2,4-Trichloro-benzene (µg/L)	1,2,4-Trimethyl-benzene (µg/L)	1,2-Dibromo-3-chloropropane (µg/L)	1,2-Dibromo-ethane (µg/L)	1,2-Dichloro-benzene (µg/L)	1,2-Dichloro-ethane (µg/L)	1,2-Dichloro-propane (µg/L)	1,3,5-Trimethyl-benzene (µg/L)	1,3-Dichloro-benzene (µg/L)	1,3-Dichloro-propane (µg/L)
Evaporation Ponds	EP-2	09/06/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	0.53	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		04/30/19	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(20)*	ND(10)	ND(10)	*ND(20)*	*ND(10)*	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		11/21/19	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(10)*	--	ND(10)	ND(10)	--	*ND(10)*	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		09/16/20	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	*ND(20)*	ND(10)	ND(10)	*ND(20)*	*ND(10)*	ND(10)	ND(10)	ND(5)	*ND(10)*	ND(10)	ND(10)
		09/17/20	ND(1) UJ	ND(1) UJ	ND(2) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	*ND(2) UJ*	ND(1) UJ	ND(1) UJ	*ND(2) UJ*	*ND(1) UJ*	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ
		12/21/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	*ND(5)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	EP-3	09/06/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	ND(1)	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		04/30/19	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(20)*	ND(10)	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)
		11/20/19	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(10)*	--	ND(10)	ND(10)	--	*ND(10)*	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		09/16/20	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(20)*	ND(10)	ND(10)	*ND(20)*	*ND(10)*	ND(10)	ND(0.5)	*ND(10)*	ND(10)	ND(10)	ND(10)
		12/21/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	EP-4	09/06/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	ND(1)	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		04/30/19	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(20)*	ND(10)	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)
		09/17/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/21/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	*ND(5)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	EP-5	09/06/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	ND(1)	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		04/30/19	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(20)*	ND(10)	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)
		09/17/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/21/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	*ND(5)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	EP-6	09/07/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	ND(1)	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		04/29/19	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(20)*	ND(10)	ND(10)	*ND(20)*	*ND(10)*	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		09/17/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/21/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	*ND(5)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	EP-7	09/07/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	0.47	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		04/29/19	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(20)*	ND(10)	ND(10)	*ND(20)*	*ND(10)*	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		11/20/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	--	ND(1)	0.55	--	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/17/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	0.35 J	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/21/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	*ND(5)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	EP-8	09/07/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	ND(1)	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		04/29/19	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(20)*	ND(10)	ND(10)	*ND(20)*	*ND(10)*	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		11/20/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	--	ND(1)	0.5	--	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/17/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	0.4 J	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/22/20	ND(1) UJ	ND(1)	ND(1)	ND(5) UJ	ND(1)	ND(1)	ND(1)	ND(1) UJ	*ND(5)*	ND(1) UJ	ND(1)	*ND(5) UJ*	*ND(1) UJ*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1) UJ
	EP-9	09/07/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	ND(1)	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		04/29/19	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(20)*	ND(10)	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)
		11/20/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	--	ND(1)	ND(1)	--	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/17/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	0.4 J	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/21/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	*ND(5)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	EP-11	09/07/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	1.2	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		04/29/19	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(20)*	ND(10)	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)
		12/22/20	ND(1) UJ	ND(1)	ND(1)	ND(5) UJ	ND(1)	ND(1)	ND(1)	ND(1) UJ	*ND(5)*	ND(1) UJ	ND(1)	*ND(5) UJ*	*ND(1) UJ*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1) UJ
	EP-12A	09/07/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	ND(1)	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		11/21/19	ND(5)	ND(5)	ND(10)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	--	ND(5)	ND(5)	--	*ND(5)*	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
		12/22/20	ND(1) UJ	ND(1)	ND(1)	ND(5) UJ	ND(1)	ND(1)	ND(1)	ND(1) UJ	*ND(5)*	ND(1) UJ	ND(1)	*ND(5) UJ*	*ND(1) UJ*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1) UJ
	EP-12B	09/07/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	ND(1)	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		04/29/19	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(20)*	ND(10)	ND(10)	*ND(20)*	*ND(10)*	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		11/19/19	ND(5)	ND(5)	ND(10)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	--	ND(5)	ND(5)	--	*ND(5)*	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
		09/18/20	ND(1) UJ	ND(1) UJ	ND(2) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	*ND(2) UJ*	ND(1) UJ	ND(1) UJ	*ND(2) UJ*	*ND(1) UJ*	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ
		12/21/20	ND(1) UJ	ND(1)	ND(1)	ND(1) UJ	ND(1)	ND(1)	ND(1)	ND(1) UJ	*ND(5)*	ND(1) UJ	ND(1)	*ND(5) UJ*	*ND(1) UJ*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1) UJ
	STP-1 to EP-2	08/31/18	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(20)*	ND(10)	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)
		11/08/18	ND(5)	ND(5)	ND(10)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	*ND(10)*	ND(5)	ND(5)	*ND(10)*	*ND(5)*	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
		02/07/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		05/29/19	*ND(20)*	ND(20)	*ND(40)*	*ND(20)*	ND(20)	*ND(20)*	ND(20)	*ND(20)*	*ND(40)*	ND(20)	ND(20)	*ND(40)*	*ND(20)*	ND(20)	ND(20)	*ND(20)*	*ND(20)*	ND(20)	ND(20)
		10/09/19	ND(2)	ND(2)	ND(4)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	*ND(4)*	ND(2)	0.59	*ND(4)*	*ND(2)*	ND(2)	0.77	ND(2)	ND(2)	ND(2)	ND(2)
		11/21/19	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(10)*	--	ND(10)	ND(10)	--	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)
		09/16/20	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(20)*	ND(10)	ND(10)	*ND(20)*	*ND(10)*	ND(10)	ND(5)	*ND(10)*	ND(10)	ND(10)	ND(10)
		12/21/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	*ND(5)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
Selected Screening Levels			5.74	200	10	5	25	7	NA	7	0.0084	70	56	0.0033	0.05	600	5	5	60	NA	370

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-2. VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	1,4-Dichloro-benzene (µg/L)	1,4-Dioxane (µg/L)	2,2-Dichloro-propane (µg/L)	2-Butanone (µg/L)	2-Chlorotoluene (µg/L)	2-Hexanone (µg/L)	4-Chlorotoluene (µg/L)	4-Methyl-2-Pentanone (µg/L)	Acetone (µg/L)	Benzene (µg/L)	Bromobenzene (µg/L)	Bromodichloro-methane (µg/L)	Bromoform (µg/L)	Bromomethane (µg/L)	Carbon Disulfide (µg/L)	Carbon tetrachloride (µg/L)	Chlorobenzene (µg/L)	Chloroethane (µg/L)	Chloroform (µg/L)	Chloromethane (µg/L)	cis-1,2-Dichloro-ethene (µg/L)	Cis-1,3-dichloro-propene (µg/L)	Dibromo-chloromethane (µg/L)	Dibromomethane (µg/L)	Dichlorodifluoro-methane (µg/L)
Evaporation Ponds	EP-2	09/06/18	--	--	ND(2)	5.4	ND(1)	ND(10)	ND(1)	ND(10)	110	1.2	ND(1)	ND(1)	ND(1)	ND(3)	2.3	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		04/30/19	ND(10)	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	ND(100)	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(30)*	4.9	*ND(10)*	ND(10)	ND(20)	ND(10)	*ND(30)*	ND(10)	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)
		11/21/19	ND(10)	--	ND(20)	46	ND(10)	*ND(100)*	ND(10)	ND(100)	ND(100)	**18**	ND(10)	*ND(10)*	ND(10)	**11**	ND(100)	*ND(10)*	ND(10)	ND(20)	ND(10)	*ND(30)*	ND(10)	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)
		09/16/20	ND(10)	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	590	ND(5)	ND(10)	ND(10)	ND(10)	*ND(30)*	ND(100)	*ND(10)*	ND(10)	ND(20)	ND(10)	*ND(30)*	ND(10)	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)
		09/17/20	ND(1) UJ	--	ND(2) UJ	3.4 J	ND(1) UJ	ND(10) UJ	ND(1) UJ	ND(10) UJ	2.4 J	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(3) UJ	ND(10) UJ	ND(1) UJ	ND(1) UJ	ND(2) UJ	ND(1) UJ	ND(3) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ
		12/21/20	ND(1)	--	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	ND(1)	--	ND(1)	ND(5)	ND(1)	5.75	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(5) UJ	ND(1)
	EP-3	09/06/18	--	--	ND(2)	4.6	ND(1)	ND(10)	ND(1)	ND(10)	65	0.39	ND(1)	ND(1)	ND(1)	ND(3)	3.5	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		04/30/19	ND(10)	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	ND(100)	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(30)*	6.4	*ND(10)*	ND(10)	ND(20)	ND(10)	*ND(30)*	ND(10)	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)
		11/20/19	ND(10)	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	180	ND(5)	ND(10)	*ND(10)*	ND(10)	*ND(30)*	29	*ND(10)*	ND(10)	ND(20)	ND(10)	*ND(30)*	ND(10)	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)
		09/16/20	ND(10)	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	500	ND(5)	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(100)	*ND(10)*	ND(10)	ND(20)	ND(10)	*ND(30)*	ND(10)	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)
		12/21/20	ND(1)	--	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	ND(1)	--	ND(1)	ND(5)	ND(1)	1.54	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(5) UJ	ND(1)
	EP-4	09/06/18	--	--	ND(2)	3.3	ND(1)	ND(10)	ND(1)	ND(10)	27	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	5.2	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		04/30/19	ND(10)	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	ND(100)	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(30)*	5.8	*ND(10)*	ND(10)	ND(20)	ND(10)	*ND(30)*	ND(10)	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)
		09/17/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	16/ND(16)U*	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	2.1 J	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/21/20	ND(1)	--	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	ND(1)	--	ND(1)	ND(5)	ND(1)	1.06	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(5) UJ	ND(1)
	EP-5	09/06/18	--	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	5.2	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	1.7	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		04/30/19	ND(10)	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	ND(100)	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(100)	*ND(10)*	ND(10)	ND(20)	ND(10)	*ND(30)*	ND(10)	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)
		09/17/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	5.2J/ND(10)U*	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/21/20	ND(1)	--	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	ND(1)	--	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(5) UJ	ND(1)
	EP-6	09/07/18	--	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	2	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		04/29/19	ND(10)	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	ND(100)	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(30)*	13	*ND(10)*	ND(10)	ND(20)	ND(10)	*ND(30)*	ND(10)	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)
		09/17/20	ND(1)	--	ND(2)	1.3J/ND(10)U*	ND(1)	ND(10)	ND(1)	ND(10)	3.6J/ND(10)U*	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/21/20	ND(1)	--	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	ND(1)	--	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(5) UJ	ND(1)
	EP-7	09/07/18	--	--	ND(2)	1.7	ND(1)	ND(10)	ND(1)	0.58	27	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	2.1	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		04/29/19	ND(10)	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	16	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(100)	*ND(10)*	ND(10)	ND(20)	ND(10)	4.7	ND(10)	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)
		11/20/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	58	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	0.9	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/17/20	ND(1)	--	ND(2)	5.7J/ND(10)U*	ND(1)	ND(10)	ND(1)	ND(10)	58 JB	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	1.3 J	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/21/20	ND(1)	--	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	44.6	ND(1)	--	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	3.01	ND(1)	*ND(5)*	ND(1)	ND(5) UJ	ND(1)
	EP-8	09/07/18	--	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	8.3	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	1.2	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		04/29/19	ND(10)	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	ND(100)	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(100)	*ND(10)*	ND(10)	ND(20)	ND(10)	4.2	ND(10)	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)
		11/20/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	45	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	1.3	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/17/20	ND(1)	--	ND(2)	5.8J/ND(10)U*	ND(1)	ND(10)	ND(1)	ND(10)	69 JB	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	4.4	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/22/20	ND(1)	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1) UJ	ND(25)	ND(25)	ND(1)	--	ND(1) UJ	ND(5) UJ	ND(1)	ND(1)	ND(1)	ND(1) UJ	ND(1)	ND(1)	2.41	ND(1)	*ND(5)*	ND(1) UJ	ND(5)	ND(1) UJ
	EP-9	09/07/18	--	--	ND(2)	1.5	ND(1)	ND(10)	ND(1)	0.47	16	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	2.5	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		04/29/19	ND(10)	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	ND(100)	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(100)	*ND(10)*	ND(10)	ND(20)	ND(10)	5.2	ND(10)	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)
		11/20/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	1.4	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/17/20	ND(1)	--	ND(2)	5.2J/ND(10)U*	ND(1)	ND(10)	ND(1)	ND(10)	56 JB	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	1.4 J	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/21/20	ND(1)	--	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	42.2	ND(1)	--	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	1.67	ND(1)	*ND(5)*	ND(1)	ND(5) UJ	ND(1)
	EP-11	09/07/18	--	--	ND(2)	48	ND(1)	ND(10)	ND(1)	2.8	66	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	0.6	ND(1)	ND(1)	ND(2)	ND(1)	**31**	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		04/29/19	ND(10)	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	ND(100)	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(100)	*ND(10)*	ND(10)	ND(20)	ND(10)	4.6	ND(10)	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)
		12/22/20	ND(1)	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1) UJ	ND(25)	36.1	ND(1)	--	ND(1) UJ	ND(5) UJ	ND(1)	2.27	ND(1)	ND(1) UJ	ND(1)	ND(1)	11.1	ND(1)	*ND(5)*	ND(1) UJ	ND(5)	ND(1) UJ
	EP-12A	09/07/18	--	--	ND(2)	8.3	ND(1)	ND(10)	ND(1)	1.6	98	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	0.77	ND(1)	ND(1)	ND(2)	ND(1)	1.4	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		11/21/19	ND(5)	--	ND(10)	15	ND(5)	*ND(50)*	ND(5)	ND(50)	140	ND(5)	ND(5)	*ND(5)*	ND(5)	*ND(15)*	32	ND(5)	ND(5)	ND(10)	ND(5)	ND(15)	ND(5)	*ND(5)*	*ND(5)*	ND(5)	ND(5)
		12/22/20	ND(1)	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1) UJ	ND(25)	37.4	ND(1)	--	ND(1) UJ	ND(5) UJ	ND(1)	ND(1)	ND(1)	ND(1) UJ	ND(1)	ND(1)	4.2	ND(1)	*ND(5)*	ND(1) UJ	ND(5)	ND(1) UJ
	EP-12B	09/07/18	--	--	ND(2)	4.3	ND(1)	ND(10)	ND(1)	ND(10)	51	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	23	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		04/29/19	ND(10)	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	ND(100)	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(100)	*ND(10)*	ND(10)	ND(20)	ND(10)	*ND(30)*	ND(10)	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)
		11/21/19	ND(5)	--	ND(10)	17	ND(5)	*ND(50)*	ND(5)	ND(50)	1.2	ND(5)	ND(5)	*ND(15)*	ND(5)	ND(15)	31	ND(5)	ND(5)	ND(10)	ND(5)	ND(15)	ND(5)	*ND(5)*	*ND(5)*	ND(5)	ND(5)
		09/18/20	ND(1) UJ	--	ND(2) UJ	1.8 J	ND(1) UJ	ND(10) UJ	ND(1) UJ	ND(10) UJ	24 J	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(3) UJ	ND(10) UJ	ND(1) UJ	ND(1) UJ	ND(2) UJ	ND(1) UJ	ND(3) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ
STP-1 to EP-2		08/31/18	ND(10)	--	ND(20)	170	ND(10)	*ND(100)*	ND(10)	ND(100)	1200	*ND(10)*	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(100)	*ND(10)*	ND(10)	ND(20)	ND(10)	*ND(30)*	ND(10)	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)
		11/08/18	ND(5)	--	ND(10)	920	ND(5)	*ND(50)*	ND(5)	ND(50)	ND(50)	ND(5)	ND(5)	*ND(5)*	ND(5)	*ND(15)*	ND(50)	ND(5)	ND(5)	ND(10)	ND(5)	ND(15)	ND(5)	*ND(5)*	*ND(5)*	ND(5)	ND(5)
		02/07/19	ND(1)	--	ND(2)	16	ND(1)	ND(10)	ND(1)	ND(10)	530	**15**	ND(1)	ND(1)	ND(1)	ND(3)	1.2	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		05/29/19	ND(20)	--	ND(40)	46	ND(20)	*ND(200)*	ND(20)	ND(200)	760	*ND(20)*	ND(20)	*ND(20)*	ND(20)	*ND(60)*	ND(200)	*ND(20)*	ND(20)	ND(40)	ND(20)	*ND(60)*	ND(20)	*ND(20)*	*ND(20)*	*ND(20)*	ND(20)
		10/09/19	ND(2)	--	ND(4)	12	ND(2)	ND(20)	ND(2)	ND(20)	760	3.9	ND(2)	*ND(2)*	ND(2)	ND(6)	3.3	ND(2)	ND(2)	2.5	ND(2)	2.7	ND(2)	ND(2)	ND(2)	*ND(2)*	ND(2)
		11/21/19	ND(10)	--	ND(20)	47	ND(10)	*ND(100)*	ND(10)	ND(100)	ND(100)	**22**	ND(10)	*ND(10)*	ND(10)	**16**	ND(100)	*ND(10)*	ND(10)	ND(20)	ND(10)	*ND(30)*	ND(10)	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)
		09/16/20	ND(10)	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	12000	ND(5)	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(100)	*ND(10)*	ND(10)	ND(20)	ND(10)	*ND(30)*	ND(10)	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)
		12/21/20	ND(1)	--	ND(1)	31	ND(1)	ND(25)	ND(1)	ND(25)	104	ND(1)	--	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1) UJ
Selected Screening Levels			75	4.59	NA	5,565	240	38	250	6,300	14,064	5	62	1.34	32.9	7.54	810	5	77.6	21,000	100	20.32	70	4.71	1.68	8	197

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-2. VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Ethylbenzene (µg/L)	Hexachloro-butadiene (µg/L)	Isopropyl-benzene (µg/L)	Methylene Chloride (µg/L)	MTBE (µg/L)	n-Butyl-benzene (µg/L)	n-Propyl-benzene (µg/L)	p-Isopropyl-toluene (µg/L)	sec-Butylbenzene (µg/L)	Styrene (µg/L)	tert-Butyl-benzene (µg/L)	Tetrachloro-ethene (µg/L)	Toluene (µg/L)	trans-1,2-Dichloroethene (µg/L)	trans-1,3-Dichloropropene (µg/L)	Trichloroethene (µg/L)	Trichlorofluor-methane (µg/L)	Vinyl Chloride (µg/L)	Xylenes, Total (µg/L)
Evaporation Ponds	EP-2	09/06/18	ND(1)	--	ND(1)	0.57	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	1.8
		04/30/19	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(10)	ND(30)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		11/21/19	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(10)	ND(30)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	9.9	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		09/16/20	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(10)	ND(30)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		09/17/20	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(3) UJ	ND(1) UJ	ND(3) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1.5) UJ
		12/21/20	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1) UJ	ND(1)	ND(10)
	EP-3	09/06/18	ND(1)	--	ND(1)	0.64	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	0.54	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		04/30/19	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(10)	ND(30)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		11/20/19	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(10)	ND(30)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		09/16/20	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(10)	ND(30)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		12/21/20	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1) UJ	ND(1)	ND(10)
	EP-4	09/06/18	ND(1)	--	ND(1)	0.54	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		04/30/19	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(10)	ND(30)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		09/17/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/21/20	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1) UJ	ND(1)	ND(10)
	EP-5	09/06/18	ND(1)	--	ND(1)	0.5	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		04/30/19	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(10)	ND(30)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		09/17/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/21/20	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1) UJ	ND(1)	ND(10)
	EP-6	09/07/18	ND(1)	--	ND(1)	0.47	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		04/29/19	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(10)	ND(30)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		09/17/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/21/20	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1) UJ	ND(1)	ND(10)
	EP-7	09/07/18	ND(1)	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		04/29/19	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(10)	ND(30)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		11/20/19	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/17/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/21/20	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1) UJ	ND(1)	ND(10)
	EP-8	09/07/18	ND(1)	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		04/29/19	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(10)	ND(30)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		11/20/19	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/17/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/22/20	ND(1)	*ND(5) UJ*	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1) UJ	ND(1) UJ	ND(1)	ND(1) UJ	ND(1)	*ND(5) UJ*	ND(1)	ND(1)	ND(1)	ND(10) UJ
	EP-9	09/07/18	ND(1)	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		04/29/19	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(10)	ND(30)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		11/20/19	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/17/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/21/20	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1) UJ	ND(1)	ND(10)
	EP-11	09/07/18	ND(1)	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	1
		04/29/19	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(10)	ND(30)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		12/22/20	ND(1)	*ND(5) UJ*	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1) UJ	ND(1) UJ	ND(1)	ND(1) UJ	ND(1)	*ND(5) UJ*	ND(1)	ND(1)	ND(1)	ND(10) UJ
	EP-12A	09/07/18	ND(1)	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		11/21/19	ND(5)	*ND(5)*	ND(5)	*ND(15)*	ND(5)	ND(15)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	*ND(5)*	ND(5)	ND(5)	*ND(5)*	ND(7.5)
		12/22/20	ND(1)	*ND(5) UJ*	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1) UJ	ND(1) UJ	ND(1)	ND(1) UJ	ND(1)	*ND(5) UJ*	ND(1)	ND(1)	ND(1)	ND(10) UJ
	EP-12B	09/07/18	ND(1)	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		04/29/19	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(10)	ND(30)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		11/21/19	ND(5)	*ND(5)*	ND(5)	*ND(15)*	ND(5)	ND(15)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	*ND(5)*	ND(5)	ND(5)	*ND(5)*	ND(7.5)
		09/18/20	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(3) UJ	ND(1) UJ	ND(3) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1) UJ	ND(1.5) UJ
		12/22/20	ND(1)	*ND(5) UJ*	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1) UJ	ND(1) UJ	ND(1)	ND(1) UJ	ND(1)	*ND(5) UJ*	ND(1)	ND(1)	ND(1)	ND(10) UJ
	STP-1 to EP-2	08/31/18	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(10)	ND(30)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		11/08/18	ND(5)	*ND(5)*	ND(5)	*ND(15)*	ND(5)	ND(15)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	*ND(5)*	ND(5)	ND(5)	*ND(5)*	ND(7.5)
		02/07/19	0.28	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	8.9	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	1.7
		05/29/19	ND(20)	*ND(20)*	ND(20)	*ND(60)*	ND(20)	ND(60)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	*ND(20)*	ND(20)	ND(20)	*ND(20)*	*ND(20)*	ND(20)	*ND(20)*	ND(30)
		10/09/19	ND(2)	*ND(2)*	ND(2)	0.45	ND(2)	ND(6)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	1.1	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(3)
		11/21/19	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(10)	ND(30)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	13	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		09/16/20	ND(10)	*ND(10)*	ND(10)	*ND(30)*	ND(10)	ND(30)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		12/21/20	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	ND(1) UJ	ND(10)
Selected Screening Levels			700	1.39	447	5	143	1,000	660	NA	2,000	100	690	5	1,000	100	4.71	5	1,137	2	620

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-2. VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	1,1,1,2-Tetrachloroethane (µg/L)	1,1,1-Trichloroethane (µg/L)	1,1,2,2-Tetrachloroethane (µg/L)	1,1,2-Trichloroethane (µg/L)	1,1-Dichloroethane (µg/L)	1,1-Dichloroethene (µg/L)	1,1-Dichloropropene (µg/L)	1,2,3-Trichlorobenzene (µg/L)	1,2,3-Trichloropropane (µg/L)	1,2,4-Trichloro-benzene (µg/L)	1,2,4-Trimethyl-benzene (µg/L)	1,2-Dibromo-3-chloropropane (µg/L)	1,2-Dibromo-ethane (µg/L)	1,2-Dichloro-benzene (µg/L)	1,2-Dichloro-ethane (µg/L)	1,2-Dichloro-propane (µg/L)	1,3,5-Trimethyl-benzene (µg/L)	1,3-Dichloro-benzene (µg/L)	1,3-Dichloro-propane (µg/L)
Western Boundary	BW-1A	3Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-1B	3Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-1C	09/13/17	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/12/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		08/14/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/20/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	BW-2A	09/13/17	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/12/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		08/14/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/20/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	BW-2B	09/13/17	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/12/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		08/14/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/21/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	BW-2C	09/13/17	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/18/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		08/14/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/22/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	BW-3A	09/14/20	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-3B	09/13/17	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/12/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		08/14/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/21/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	BW-3C	09/13/17	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/18/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		08/14/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/22/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	BW-4A	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-4B	03/10/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/28/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1) UJ	ND(1) UJ	*ND(5) UJ*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1) UJ	ND(1)	ND(1)
	BW-5A	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-5B	10/16/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	--	ND(1)	ND(1)	--	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		03/05/20	ND(1)	ND(1)	ND(2)	ND(1)	0.48 J	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/20/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/11/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	*ND(5)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	BW-5C	10/16/19	ND(1)	ND(1)	ND(2)	ND(1)	0.82	ND(1)	ND(1)	ND(1)	--	ND(1)	ND(1)	--	*ND(1)*	ND(1)	0.67	ND(1)	ND(1)	ND(1)	ND(1)
		03/05/20	ND(1)	ND(1)	ND(2)	ND(1)	0.76 J	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	0.64 J	ND(1)	ND(1)	ND(1)	ND(1)
		09/19/20	ND(1)	ND(1)	ND(2)	ND(1)	0.95 J	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	0.55 J	ND(1)	ND(1)	ND(1)	ND(1)
		12/09/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	*ND(5)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	OW-01	10/16/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	--	ND(1)	ND(1)	--	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		03/09/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/20/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/11/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	*ND(5)*	ND(0.021) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	OW-10	10/17/19	ND(1)	ND(1)	ND(2)	ND(1)	0.83	0.59	ND(1)	ND(1)	--	ND(1)	ND(1)	--	*ND(1)*	ND(1)	0.54	ND(1)	ND(1)	ND(1)	ND(1)
		03/04/20	ND(1)	ND(1)	ND(2)	ND(1)	0.69 J	0.6 J	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/20/20	ND(1)	ND(1)	ND(2)	ND(1)	1.4	0.75 J	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	0.37 J	ND(1)	ND(1)	ND(1)	ND(1)
		12/11/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	*ND(5)*	ND(0.022) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	OW-11	09/18/17	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/18/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		08/20/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	0.31	*ND(2)*	*ND(1)*	ND(1)	0.38	ND(1)	ND(1)	ND(1)	ND(1)
		09/20/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	OW-12	09/19/17	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/19/18	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
Deep		3Q2019	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		09/17/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	OW-13	10/14/19	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	--	ND(1)	ND(1)	--	*ND(1)*	ND(1)	0.8	ND(1)	ND(1)	ND(1)	ND(1)
		03/02/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	0.75 J	ND(1)	ND(1)	ND(1)	ND(1)
		09/17/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	0.66 J	ND(1)	ND(1)	ND(1)	ND(1)
		12/09/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	*ND(5)*	ND(0.0197) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	PW-2	09/10/14	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	ND(1)	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		09/18/17	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--	ND(1)	*ND(2)*	*ND(1)*	--	ND(1)	ND(1)	ND(1)	--	ND(1)
		09/21/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/28/20	ND(1) R	ND(1) R	ND(1) R	ND(5) R	ND(1) R	ND(1) R	ND(1) R	ND(1) R	*ND(5) R*	ND(1) R	ND(1) R	*ND(5) R*	*ND(1) R*	ND(1) R	ND(1) R	ND(1) R	ND(1) R	ND(1) R	ND(1) R
	PW-3	08/28/19	ND (1)	ND (1)	ND (2)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	*ND (2)*	ND (1)	ND (1)	*ND (2)*	*ND (1)*	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
		09/21/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/28/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1) UJ	ND(1) UJ	*ND(5) UJ*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1) UJ	ND(1)	ND(1)
	PW-4	08/27/19	ND (1)	ND (1)	ND (2)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	*ND (2)*	ND (1)	ND (1)	*ND (2)*	*ND (1)*	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
		09/21/20	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/28/20	ND(1)	ND(1)	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1) UJ	ND(1) UJ	*ND(5) UJ*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1) UJ	ND(1)	ND(1)
	Selected Screening Levels		5.74	200	10	5	25	7	NA	7	0.0084	70	56	0.0033	0.05	600	5	5	60	NA	370

Notes:
-- = Not Measured
MTBE = methyl tert butyl ether
NA = Not Applicable
ND(x) = Not detected, where x = the reporting limit
NS = Not sampled
NS - Dry = Not sampled due to dry well
NS - H2S = Not sampled due to presense of Hydrogen Sulfide
NS - RW = Not sampled due to recovery well in place
NS - SPH = Not sampled due to presense of Separate Phase Hydrocarbons
Q = Quarter
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the selected screening levels.
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
J = Estimated concentration
J- = Estimated concentration, possibly biased low
JB = Estimated concentration due to blank contamination
R = Rejected, Data not usable
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-2. VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	1,4-Dichloro-benzene (µg/L)	1,4-Dioxane (µg/L)	2,2-Dichloro-propane (µg/L)	2-Butanone (µg/L)	2-Chlorotoluene (µg/L)	2-Hexanone (µg/L)	4-Chlorotoluene (µg/L)	4-Methyl-2-Pentanone (µg/L)	Acetone (µg/L)	Benzene (µg/L)	Bromobenzene (µg/L)	Bromodichloro-methane (µg/L)	Bromoform (µg/L)	Bromomethane (µg/L)	Carbon Disulfide (µg/L)	Carbon tetrachloride (µg/L)	Chlorobenzene (µg/L)	Chloroethane (µg/L)	Chloroform (µg/L)	Chloromethane (µg/L)	cis-1,2-Dichloro-ethene (µg/L)	Cis-1,3-dichloro-propene (µg/L)	Dibromo-chloromethane (µg/L)	Dibromomethane (µg/L)	Dichlorodifluoro-methane (µg/L)
Western Boundary	BW-1A	3Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-1B	3Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-1C	09/13/17	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	3.6	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/12/18	ND(1)	*ND(10)*	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	4.5	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		08/14/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/20/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	BW-2A	09/13/17	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	9.1	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/12/18	ND(1)	*ND(10)*	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		08/14/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/20/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	BW-2B	09/13/17	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	6.1	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/12/18	ND(1)	*ND(10)*	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	4.2	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		08/14/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/21/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	BW-2C	09/13/17	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	6.9	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/18/18	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	4.1	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		08/14/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/22/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	BW-3A	09/14/20	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-3B	09/13/17	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	8.6	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/12/18	ND(1)	*ND(10)*	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	3.5	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		08/14/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/21/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	BW-3C	09/13/17	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	3.8	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/18/18	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	1.9	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		08/14/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/22/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	BW-4A	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-4B	03/10/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/28/20	ND(1)	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1) UJ	ND(25)	ND(25)	ND(1)	--	ND(1)	ND(5) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1) UJ	ND(5)	ND(1)
	BW-5A	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-5B	10/16/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		03/05/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	2.4J/ND(10)U*	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/20/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/11/20	ND(1)	--	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	ND(1)	--	ND(1)	ND(5) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1) UJ
	BW-5C	10/16/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		03/05/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	2.9J/ND(10)U*	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/19/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/09/20	ND(1)	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	ND(1)	--	ND(1)	ND(5) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1) UJ
	OW-01	10/16/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		03/09/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/20/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/11/20	ND(1)	ND(1)	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	ND(1)	--	ND(1)	ND(5) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1) UJ
	OW-10	10/17/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	5.8	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		03/04/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	3.2J/ND(10)U*	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/20/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/11/20	ND(1)	2.27	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	ND(1)	--	ND(1)	ND(5) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1) UJ
	OW-11	09/18/17	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	5.9	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/18/18	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		08/20/19	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	0.48	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/20/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	OW-12	09/19/17	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	1.8	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/19/18	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	4.2	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
Deep		3Q2019	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		09/17/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	**29**	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	OW-13	10/14/19	ND(1)	--	ND(2)	3.7	ND(1)	ND(10)	ND(1)	ND(10)	6.4	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		03/02/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	3J/ND(10)U*	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/17/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/09/20	ND(1)	ND(1)	ND(1)	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	ND(1)	--	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1)
	PW-2	09/10/14	--	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/18/17	--	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	24	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/21/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/28/20	ND(1) R	ND(1)	ND(1) R	ND(25) R	ND(1) R	ND(25) R	ND(1) R	ND(25) R	ND(25) R	ND(1) R	--	ND(1) R	ND(5) R	ND(1) R	ND(1) R	ND(1) R	ND(1) R	ND(1) R	ND(1) R	ND(1) R	ND(1) R	*ND(5) R*	ND(1) R	ND(5) R	ND(1) R
	PW-3	08/28/19	ND (1)	--	ND (2)	ND (10)	ND (1)	ND (10)	--	ND (10)	2	ND (1)	ND (1)	ND (1)	ND (1)	ND (3)	ND (10)	ND (1)	ND (1)	ND (2)	ND (1)	ND (3)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
		09/21/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/28/20	ND(1)	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1) UJ	ND(25)	ND(25)	ND(1)	--	ND(1)	ND(5) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1) UJ	ND(5)	ND(1)
	PW-4	08/27/19	ND (1)	--	ND (2)	ND (10)	ND (1)	ND (10)	--	ND (10)	ND (10)	ND (1)	ND (1)	ND (1)	ND (1)	ND (3)	ND (10)	ND (1)	ND (1)	ND (2)	ND (1)	ND (3)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
		09/21/20	ND(1)	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(3)	ND(10)	ND(1)	ND(1)	ND(2)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/28/20	ND(1)	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1) UJ	ND(25)	ND(25)	ND(1)	--	ND(1)	ND(5) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1) UJ	ND(5)	ND(1)
	Selected Screening Levels		75	4.59	NA	5,565	240	38	250	6,300	14,064	5	62	1.34	32.9	7.54	810	5	77.6	21,000	100	20.32	70	4.71	1.68	8	197

Notes:
-- = Not Measured
MTBE = methyl tert butyl ether
NA = Not Applicable
ND(x) = Not detected, where x = the reporting limit
NS = Not sampled
NS - Dry = Not sampled due to dry well
NS - H2S = Not sampled due to presense of Hydrogen Sulfide
NS - RW = Not sampled due to recovery well in place
NS - SPH = Not sampled due to presense of Separate Phase Hydrocarbons
Q = Quarter
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the selected screening levels.
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
J = Estimated concentration
J- = Estimated concentration, possibly biased low
JB = Estimated concentration due to blank contamination
R = Rejected, Data not usable
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-2. VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Ethylbenzene (µg/L)	Hexachloro-butadiene (µg/L)	Isopropyl-benzene (µg/L)	Methylene Chloride (µg/L)	MTBE (µg/L)	n-Butyl-benzene (µg/L)	n-Propyl-benzene (µg/L)	p-Isopropyl-toluene (µg/L)	sec-Butylbenzene (µg/L)	Styrene (µg/L)	tert-Butyl-benzene (µg/L)	Tetrachloro-ethene (µg/L)	Toluene (µg/L)	trans-1,2-Dichloroethene (µg/L)	trans-1,3-Dichloropropene (µg/L)	Trichloroethene (µg/L)	Trichlorofluor-methane (µg/L)	Vinyl Chloride (µg/L)	Xylenes, Total (µg/L)
Western Boundary	BW-1A	3Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-1B	3Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-1C	09/13/17	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/12/18	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		08/14/19	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/20/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
	BW-2A	09/13/17	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/12/18	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		08/14/19	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/20/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
	BW-2B	09/13/17	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/12/18	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		08/14/19	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/21/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
	BW-2C	09/13/17	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/18/18	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		08/14/19	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/22/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
	BW-3A	09/14/20	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-3B	09/13/17	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/12/18	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		08/14/19	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/21/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
	BW-3C	09/13/17	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/18/18	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		08/14/19	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/22/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
	BW-4A	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-4B	03/10/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/28/20	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1) UJ	ND(1)	ND(1)	ND(1)	*ND(5) UJ*	ND(1)	ND(1)	ND(1)	ND(10)
	BW-5A	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-5B	10/16/19	ND(1)	ND(1)	ND(1)	ND(3)	1.2	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		03/05/20	ND(1)	ND(1)	ND(1)	ND(3)	11	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/20/20	ND(1)	ND(1)	ND(1)	ND(3)	12	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/11/20	ND(1)	*ND(5)*	ND(1)	ND(5)	9.57	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(10)
	BW-5C	10/16/19	ND(1)	ND(1)	ND(1)	ND(3)	24	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		03/05/20	ND(1)	ND(1)	ND(1)	ND(3)	27	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/19/20	ND(1)	ND(1)	ND(1)	ND(3)	28	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/09/20	ND(1)	*ND(5)*	ND(1)	ND(5)	35	ND(1) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(10)
	OW-01	10/16/19	ND(1)	ND(1)	ND(1)	ND(3)	1.7	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		03/09/20	ND(1)	ND(1)	ND(1)	ND(3)	1.6	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/20/20	ND(1)	ND(1)	ND(1)	ND(3)	2.3	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/11/20	ND(1)	*ND(5)*	ND(1)	ND(5)	1.91	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(10)
	OW-10	10/17/19	ND(1)	ND(1)	ND(1)	ND(3)	10	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		03/04/20	ND(1)	ND(1)	ND(1)	ND(3)	9.7	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/20/20	ND(1)	ND(1)	ND(1)	ND(3)	15	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/11/20	ND(1)	*ND(5)*	ND(1)	ND(5)	7.64	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(10)
	OW-11	09/18/17	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/18/18	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		08/20/19	0.41	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/20/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
	OW-12	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/19/18	ND(1)	ND(1)	ND(1)	ND(3)	0.51	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
Deep		3Q2019	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		09/17/20	1.9	ND(1)	ND(1)	ND(3)	1.5	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	31	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	6.7
	OW-13	10/14/19	ND(1)	ND(1)	ND(1)	ND(3)	77	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		03/02/20	ND(1)	ND(1)	ND(1)	ND(3)	86	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/17/20	ND(1)	ND(1)	ND(1)	ND(3)	95	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/09/20	ND(1)	*ND(5)*	ND(1)	ND(5)	134	ND(1) UJ	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(10)
	PW-2	09/10/14	ND(1)	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/18/17	ND(1)	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		09/21/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/28/20	ND(1) R	*ND(5) R*	ND(1) R	ND(5) R	ND(1) R	ND(1) R	ND(1) R	ND(1) R	ND(1) R	ND(1) R	ND(1) R	ND(1) R	ND(1) R	ND(1) R	ND(1) R	*ND(5) R*	ND(1) R	ND(1) R	ND(1) R	ND(10) R
	PW-3	08/28/19	ND (1)	ND (1)	ND (1)	ND (3)	ND (1)	ND (3)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	**87**	ND (1)	ND (1)	ND (1)	ND (1.5)
		09/21/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/28/20	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1) UJ	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5) UJ*	ND(1)	ND(1)	ND(1)	ND(10)
	PW-4	08/27/19	ND (1)	ND (1)	ND (1)	ND (3)	ND (1)	ND (3)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1.5)
		09/21/20	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.5)
		12/28/20	ND(1)	*ND(5)*	ND(1)	ND(5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1) UJ	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5) UJ*	ND(1)	ND(1)	ND(1)	ND(10)
	Selected Screening Levels		700	1.39	447	5	143	1,000	660	NA	2,000	100	690	5	1,000	100	4.71	5	1,137	2	620

Notes:
-- = Not Measured
MTBE = methyl tert butyl ether
NA = Not Applicable
ND(x) = Not detected, where x = the reporting limit
NS = Not sampled
NS - Dry = Not sampled due to dry well
NS - H2S = Not sampled due to presense of Hydrogen Sulfide
NS - RW = Not sampled due to recovery well in place
NS - SPH = Not sampled due to presense of Separate Phase Hydrocarbons
Q = Quarter
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the selected screening levels.
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
J = Estimated concentration
J- = Estimated concentration, possibly biased low
JB = Estimated concentration due to blank contamination
R = Rejected, Data not usable
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	1,2,4-Trichloro-benzene (ug/L)	1,2-Dichloro-benzene (ug/L)	1,3-Dichloro-benzene (ug/L)	1,4-Dichloro-benzene (ug/L)	1,4-Dioxane (ug/L)	1-Methylnaphthalene (ug/L)	2,4,5-Trichlorophenol (ug/L)	2,4,6-Trichlorophenol (ug/L)	2,4-Dichlorophenol (ug/L)	2,4-Dimethylphenol (ug/L)
Eastern Boundary	OW-14	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-29	02/24/20	--	--	--	--	1.3	--	--	--	--	--
		09/17/20	--	--	--	--	0.3 J	--	--	--	--	--
	OW-30	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-54	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-55	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-56	10/15/19	ND(10)	ND(10)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(20)	ND(10)
		03/02/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	0.8 J	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/21/20	--	--	--	--	**6.1 J**	--	--	--	--	--
Tank Farm	OW-57	11/05/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(10)*	**120**	ND(0.5)	ND(0.5)	ND(0.5)	6.9
	OW-57	03/05/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(5)*	**120**	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
	OW-58	11/18/19	ND(1)	ND(1)	ND(1)	ND(1)	3.3	**86**	ND(1)	ND(1)	ND(1)	12
	OW-58A	03/06/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(5)*	**130**	ND(2.5)	ND(2.5)	ND(2.5)	14
	OW-61	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-62	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-63	11/18/19	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(5)*	**78**	ND(2.5)	ND(2.5)	ND(2.5)	13
		03/04/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(5)*	**66**	ND(2.5)	ND(2.5)	ND(2.5)	19
		09/16/20	ND(5)	ND(5)	ND(5)	ND(5)	*ND(5)*	**70**	ND(5)	ND(5)	ND(5)	17
		12/11/20	ND(9.24)	ND(9.24)	ND(9.24)	ND(9.24)	--	--	ND(9.24)	ND(9.24)	ND(9.24)	15.5
	OW-64	11/18/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	1.9	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/04/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(5)*	2.1 J	ND(0.5)	ND(0.5)	ND(0.5)	1.8
		09/22/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	1.7	ND(0.51)	ND(0.51)	ND(0.51)	1.6
		12/11/20	ND(9.41)	ND(9.41)	ND(9.41)	ND(9.41)	--	--	ND(9.41)	ND(9.41)	ND(9.41)	ND(9.41)
	OW-65	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-2	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		12/8/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-01	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-02	11/19/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	**40**	6.1	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	**5.9 J-**	**48**	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		09/21/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	**11**	**34 J**	ND(2.5)	ND(2.5)	ND(2.5)	4.6
		12/18/20	ND(11.4)	ND(11.4)	ND(11.4)	ND(11.4)	--	--	ND(11.4)	ND(11.4) UJ	ND(11.4) UJ	ND(11.4)
	MKTF-03	10/30/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		3/5/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		9/15/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/3/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-04	10/30/19	ND(5)	ND(5)	ND(5)	ND(5)	**11**	**130**	ND(5)	ND(5)	ND(5)	ND(5)
		03/03/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	**18**	**130 J**	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-05	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-06	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-07	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-08	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Marketing Tank Farm Area	MKTF-09	11/18/19	ND(1)	ND(1)	ND(1)	ND(1)	**12**	**110**	ND(1)	ND(1)	ND(1)	1.1
		03/03/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	**9.1**	**58**	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-10	10/30/19	ND(5)	ND(5)	ND(5)	ND(5)	*ND(10)*	**57**	ND(5)	ND(5)	ND(5)	14
		03/03/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	**6.6**	**54**	ND(2.5)	ND(2.5)	ND(2.5)	3.2
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	ND(10.2)	ND(10.2)	ND(10.2)	ND(10.2)	--	--	ND(10.2)	ND(10.2) UJ	ND(10.2) UJ	26.6
	MKTF-11	10/30/19	ND(5)	ND(5)	ND(5)	ND(5)	*ND(10)*	11	ND(5)	ND(5)	ND(5)	19
		03/03/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	**20**	7.8	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-12	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-13	10/29/19	ND(5)	ND(5)	ND(5)	ND(5)	*ND(10)*	**73**	ND(5)	ND(5)	ND(5)	15
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-14	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-15	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-16	10/30/19	ND(5)	ND(5)	ND(5)	ND(5)	**53**	**25**	ND(5)	ND(5)	ND(5)	13
		2/5/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		9/14/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/23/2020	--	--	--	--	--	--	--	--	--	--
	MKTF-17	10/29/19	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	**22**	ND(10)	ND(10)	ND(10)	300
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	Selected Screening Levels		70	600	NA	75	4.59	11.38	1,166	11.9	45.3	354

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	2,4-Dinitrophenol (ug/L)	2,4-Dinitrotoluene (ug/L)	2,6-Dinitrotoluene (ug/L)	2-Chloronaphthalene (ug/L)	2-Chlorophenol (ug/L)	2-Methylnaphthalene (ug/L)	2-Methylphenol (ug/L)	2-Nitroaniline (ug/L)	2-Nitrophenol (ug/L)	3,3'-Dichlorobenzidine (ug/L)
Eastern Boundary	OW-14	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-29	02/24/20	--	--	--	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--	--	--	--
	OW-30	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-54	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-55	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-56	10/15/19	ND(20)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*
		03/02/20	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/21/20	--	--	--	--	--	--	--	--	--	--
Tank Farm	OW-57	11/05/19	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	**62**	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	OW-57	03/05/20	ND(2.5)	*ND(2.5)*	*ND(1)*	ND(2.5)	ND(2.5)	**58**	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*
	OW-58	11/18/19	ND(1)	ND(1)	ND(0.4)	ND(1)	ND(1)	**72**	ND(1)	ND(1)	ND(1)	ND(1)
	OW-58A	03/06/20	ND(2.5)	*ND(2.5)*	*ND(1)*	ND(2.5)	ND(2.5)	**190 J**	19	ND(2.5)	ND(2.5)	*ND(2.5)*
	OW-61	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-62	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-63	11/18/19	ND(2.5)	*ND(2.5)*	*ND(1)*	ND(2.5)	ND(2.5)	**130**	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*
		03/04/20	ND(2.5)	*ND(2.5)*	*ND(1)*	ND(2.5)	ND(2.5)	**90**	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*
		09/16/20	ND(5)	*ND(5)*	ND(0.2)	ND(5)	ND(5)	**100**	ND(5)	ND(5)	ND(5)	*ND(5)*
		12/11/20	ND(27.7)	*ND(9.24)*	*ND(9.24)*	ND(9.24)	ND(9.24)	--	ND(9.24)	ND(9.24)	ND(9.24)	*ND(9.24)*
	OW-64	11/18/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/04/20	ND(0.5)	ND(0.2)	*ND(0.5)*	ND(0.5)	ND(0.5)	0.94	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/22/20	ND(0.51) UJ	ND(0.51)	ND(0.21)	ND(0.51)	ND(0.51)	0.86	1.1	ND(0.51)	ND(0.51)	ND(0.51)
		12/11/20	ND(28.2)	*ND(9.41)*	*ND(9.41)*	ND(9.41)	ND(9.41)	--	ND(9.41)	ND(9.41)	ND(9.41)	*ND(9.41)*
	OW-65	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-2	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		12/8/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-02	11/19/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(2.5)	*ND(2.5)*	*ND(1)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*
		09/21/20	ND(2.5)	*ND(2.5)*	*ND(1)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*
		12/18/20	ND(34.1)	*ND(11.4) UJ*	*ND(11.4)*	ND(11.4)	ND(11.4)	--	ND(11.4)	ND(11.4)	ND(11.4) UJ	*ND(11.4)*
	MKTF-03	10/30/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		3/5/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		9/15/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/3/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-04	10/30/19	ND(5)	*ND(5)*	*ND(2)*	ND(5)	ND(5)	**140**	ND(5)	ND(5)	ND(5)	*ND(5)*
		03/03/20	ND(2.5)	*ND(2.5)*	*ND(1)*	ND(2.5)	ND(2.5)	**120**	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-05	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-06	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-07	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-08	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-09	11/18/19	ND(1)	ND(1)	ND(0.4)	ND(1)	ND(1)	19	ND(1)	ND(1)	ND(1)	ND(1)
		03/03/20	ND(2.5)	*ND(2.5)*	*ND(1)*	ND(2.5)	ND(2.5)	7.5	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-10	10/30/19	ND(5)	*ND(5)*	*ND(2)*	ND(5)	ND(5)	**84**	ND(5)	ND(5)	ND(5)	*ND(5)*
		03/03/20	ND(2.5)	*ND(2.5)*	*ND(1)*	ND(2.5)	ND(2.5)	**84**	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	ND(30.5)	*ND(10.2) UJ*	*ND(10.2)*	ND(10.2)	ND(10.2)	--	ND(10.2)	ND(10.2)	ND(10.2) UJ	*ND(10.2)*
	MKTF-11	10/30/19	ND(5)	*ND(5)*	*ND(2)*	ND(5)	ND(5)	11	21	ND(5)	ND(5)	*ND(5)*
		03/03/20	ND(0.5)	*ND(2.5)*	*ND(1)*	ND(2.5)	ND(2.5)	7.4	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-12	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-13	10/29/19	ND(5)	*ND(5)*	*ND(4)*	ND(5)	ND(5)	**99**	ND(5)	ND(5)	ND(5)	*ND(5)*
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-14	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-15	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-16	10/30/19	ND(5)	*ND(5)*	*ND(2)*	ND(5)	ND(5)	31	ND(5)	ND(5)	ND(5)	*ND(5)*
		2/5/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		9/14/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/23/2020	--	--	--	--	--	--	--	--	--	--
	MKTF-17	10/29/19	ND(10)	*ND(10)*	*ND(8)*	ND(10)	ND(10)	ND(10)	710	ND(10)	ND(10)	*ND(10)*
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	Selected Screening Levels		38.7	2.38	0.485	733	91	35.1	NA	NA	NA	1.25

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	3,4-Methylphenol (ug/L)	3-Nitroaniline (ug/L)	2-Methyl-4,6-dinitrophenol (ug/L)	4-Bromophenylphenylether (ug/L)	4-Chloro-3-Methylphenol (ug/L)	4-Chloroaniline (ug/L)	4-Chlorophenyl-phenylether (ug/L)	4-Nitroaniline (ug/L)	4-Nitrophenol (ug/L)	Acenaphthene (ug/L)
Eastern Boundary	OW-14	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-29	02/24/20	--	--	--	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--	--	--	--
	OW-30	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-54	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-55	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-56	10/15/19	ND(10)	ND(10)	ND(20)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(10)
		03/02/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/21/20	--	--	--	--	--	--	--	--	--	--
Tank Farm	OW-57	11/05/19	1	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	OW-57	03/05/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	1.48 J
	OW-58	11/18/19	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	--	ND(1)	ND(1)	ND(1)	2.3
	OW-58A	03/06/20	17	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	5.3
	OW-61	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-62	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-63	11/18/19	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		03/04/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		09/16/20	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
		12/11/20	--	ND(9.24)	ND(9.24)	ND(9.24)	ND(9.24)	ND(9.24)	ND(9.24)	ND(9.24)	ND(9.24)	ND(9.24)
	OW-64	11/18/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/04/20	0.28 J	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/22/20	3.7	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	0.14 J
		12/11/20	--	ND(9.41)	ND(9.41)	ND(9.41)	ND(9.41)	ND(9.41)	ND(9.41)	ND(9.41)	ND(9.41)	ND(9.41)
	OW-65	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-2	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		12/8/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-02	11/19/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		09/21/20	3.4	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	0.75 J
		12/18/20	--	ND(11.4)	ND(11.4)	ND(11.4) UJ	ND(11.4)	ND(11.4)	ND(11.4) UJ	ND(11.4)	ND(11.4)	ND(11.4)
	MKTF-03	10/30/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		3/5/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		9/15/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/3/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-04	10/30/19	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	--	ND(5)	ND(5)	ND(5)	ND(5)
		03/03/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	4.5
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-05	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-06	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-07	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-08	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-09	11/18/19	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	--	ND(1)	ND(1)	ND(1)	6.6
		03/03/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	4.4
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-10	10/30/19	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	--	ND(5)	ND(5)	ND(5)	ND(5)
		03/03/20	4.3	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	0.9 J
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	--	ND(10.2)	ND(10.2)	ND(10.2) UJ	ND(10.2)	ND(10.2)	ND(10.2) UJ	ND(10.2)	ND(10.2)	ND(10.2)
	MKTF-11	10/30/19	17	ND(5)	ND(5)	ND(5)	ND(5)	--	ND(5)	ND(5)	ND(5)	ND(5)
		03/03/20	28	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-12	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-13	10/29/19	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	--	ND(5)	ND(5)	ND(5)	ND(5)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-14	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-15	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-16	10/30/19	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	--	ND(5)	ND(5)	ND(5)	ND(5)
		2/5/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		9/14/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/23/2020	--	--	--	--	--	--	--	--	--	--
	MKTF-17	10/29/19	680	ND(10)	ND(10)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(10)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	Selected Screening Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	535

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Acenaphthylene (ug/L)	Aniline (ug/L)	Anthracene (ug/L)	Azobenzene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluor-anthene (ug/L)	Benzo(ghi)perylene (ug/L)	Benzo(k)fluor-anthene (ug/L)	Benzoic Acid (ug/L)	Benzyl Alcohol (ug/L)
Eastern Boundary	OW-14	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-29	02/24/20	--	--	--	--	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--	--	--	--	--
	OW-30	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-54	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-55	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-56	10/15/19	ND(10)	ND(10)	ND(10)	--	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(20)	ND(10)
		03/02/20	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/21/20	--	--	--	--	--	--	--	--	--	--	--
Tank Farm	OW-57	11/05/19	1.5	ND(0.5)	ND(0.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(10)	ND(0.5)
	OW-57	03/05/20	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
	OW-58	11/18/19	ND(1)	ND(1)	ND(1)	--	ND(0.2)	ND(0.2)	ND(0.2)	ND(1)	ND(1)	ND(1)	ND(1)
	OW-58A	03/06/20	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
	OW-61	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-62	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-63	11/18/19	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		03/04/20	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		09/16/20	ND(5)	ND(5)	ND(5)	--	ND(1)	ND(1)	*ND(1)*	ND(5)	*ND(5)*	ND(5)	ND(5)
		12/11/20	ND(9.24)	ND(9.24)	ND(9.24)	ND(9.24)	ND(9.24)	*ND(9.24)*	*ND(9.24)*	ND(9.24)	*ND(9.24)*	ND(27.7)	ND(9.24)
	OW-64	11/18/19	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/04/20	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(2.5)	ND(0.5)
		09/22/20	ND(0.51)	ND(0.51)	ND(0.51)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/11/20	ND(9.41)	ND(9.41)	ND(9.41)	ND(9.41)	ND(9.41)	*ND(9.41)*	*ND(9.41)*	ND(9.41)	*ND(9.41)*	ND(28.2)	ND(9.41)
	OW-65	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-2	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		12/8/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-02	11/19/19	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		09/21/20	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		12/18/20	ND(11.4)	ND(11.4) R	ND(11.4)	ND(11.4)	ND(11.4)	*ND(11.4)*	*ND(11.4)*	ND(11.4)	*ND(11.4)*	ND(34.1)	ND(11.4)
	MKTF-03	10/30/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		3/5/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		9/15/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/3/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-04	10/30/19	ND(5)	ND(5)	ND(5)	--	ND(1)	*ND(1)*	*ND(1)*	ND(5)	*ND(5)*	ND(5)	ND(5)
		03/03/20	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-05	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-06	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-07	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-08	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-09	11/18/19	ND(1)	ND(1)	ND(1)	--	ND(0.2)	ND(0.2)	ND(0.2)	ND(1)	ND(1)	ND(1)	ND(1)
		03/03/20	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-10	10/30/19	ND(5)	ND(5)	ND(5)	--	ND(1)	*ND(1)*	*ND(1)*	ND(5)	*ND(5)*	45	ND(5)
		03/03/20	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	ND(10.2)	ND(10.2) R	ND(10.2)	ND(10.2)	ND(10.2)	*ND(10.2)*	*ND(10.2)*	ND(10.2)	*ND(10.2)*	ND(30.5)	ND(10.2)
	MKTF-11	10/30/19	ND(5)	ND(5)	ND(5)	--	ND(1)	*ND(1)*	*ND(1)*	ND(5)	*ND(5)*	ND(5)	ND(5)
		03/03/20	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(0.5)	*ND(2.5)*	*ND(0.5)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-12	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-13	10/29/19	ND(5)	ND(5)	ND(5)	--	ND(1)	*ND(1)*	*ND(1)*	ND(5)	*ND(5)*	ND(5)	ND(5)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-14	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-15	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-16	10/30/19	ND(5)	ND(5)	ND(5)	--	ND(1)	*ND(1)*	*ND(1)*	ND(5)	*ND(5)*	ND(5)	ND(5)
		2/5/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		9/14/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/23/2020	--	--	--	--	--	--	--	--	--	--	--
	MKTF-17	10/29/19	ND(10)	ND(10)	ND(10)	--	ND(2)	*ND(2)*	*ND(2)*	ND(10)	*ND(10)*	ND(5)	ND(10)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	Selected Screening Levels		NA	NA	1,721	NA	NA	0.2	0.34	NA	3.43	NA	NA

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Bis(2chloro ethoxy)methane (ug/L)	Bis(2-chloro ethyl)ether (ug/L)	Bis(2chloro isopropyl)ether (ug/L)	Bis(2-ethyl hexyl)phthalate (ug/L)	Benzyl Butyl Phthalate (ug/L)	Carbazole (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Dibenzofuran (ug/L)	Diethylphthalate (ug/L)	Dimethyl Phthalate (ug/L)
Eastern Boundary	OW-14	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-29	02/24/20	--	--	--	--	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--	--	--	--	--
	OW-30	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-54	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-55	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-56	10/15/19	ND(10)	--	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		03/02/20	ND(0.5)	--	ND(0.5)	0.84	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		09/21/20	--	--	--	--	--	--	--	--	--	--	--
Tank Farm	OW-57	11/05/19	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
	OW-57	03/05/20	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	6.4	ND(2.5)	*ND(0.12)*	ND(2.5)	ND(2.5)	ND(2.5)
	OW-58	11/18/19	ND(1)	--	ND(1)	ND(1)	ND(1)	3.2	ND(1)	*ND(0.05)*	1.4	ND(1)	ND(1)
	OW-58A	03/06/20	ND(2.5)	--	ND(2.5)	1.5 J	ND(2.5)	ND(2.5)	ND(2.5)	*ND(0.12)*	2.49 J	ND(2.5)	ND(2.5)
	OW-61	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-62	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-63	11/18/19	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	6.6	ND(2.5)	*ND(0.125)*	ND(2.5)	ND(2.5)	ND(2.5)
		03/04/20	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	7.1	ND(2.5)	*ND(0.12)*	ND(2.5)	ND(2.5)	ND(2.5)
		09/16/20	ND(5)	*ND(5)*	ND(5)	ND(5)	ND(5)	5.6	ND(5)	*ND(0.3)*	ND(5)	ND(5)	ND(5)
		12/11/20	ND(9.24)	*ND(9.24)*	ND(9.24)	ND(9.24)	ND(9.24)	11.4	ND(9.24)	*ND(9.24)*	ND(9.24)	ND(9.24)	ND(9.24)
	OW-64	11/18/19	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		03/04/20	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		09/22/20	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.031)	0.12 J	ND(0.51)	ND(0.51)
		12/11/20	ND(9.41)	*ND(9.41)*	ND(9.41)	ND(9.41)	ND(9.41)	ND(9.41)	ND(9.41)	*ND(9.41)*	ND(9.41)	ND(9.41)	ND(9.41)
	OW-65	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-2	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		12/8/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-02	11/19/19	ND(0.5)	--	ND(0.5)	1.8	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(2.5)	--	ND(2.5)	1.26 J	ND(2.5)	ND(2.5)	ND(2.5)	*ND(0.12)*	ND(2.5)	ND(2.5)	ND(2.5)
		09/21/20	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(0.15)*	ND(2.5)	ND(2.5)	ND(2.5)
		12/18/20	ND(11.4)	*ND(11.4)*	*ND(11.4)*	ND(11.4)	ND(11.4)	ND(11.4)	ND(11.4)	*ND(11.4)*	ND(11.4)	ND(11.4)	ND(11.4)
	MKTF-03	10/30/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		3/5/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		9/15/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/3/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-04	10/30/19	ND(5)	--	ND(5)	ND(5)	ND(5)	18	ND(5)	*ND(0.25)*	ND(5)	ND(5)	ND(5)
		03/03/20	ND(2.5)	--	ND(2.5)	8.7	ND(2.5)	12	ND(2.5)	*ND(0.12)*	ND(2.5)	ND(2.5)	ND(2.5)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-05	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-06	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-07	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-08	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-09	11/18/19	ND(1)	--	ND(1)	ND(1)	ND(1)	18	ND(1)	*ND(0.05)*	3	ND(1)	ND(1)
		03/03/20	ND(2.5)	--	ND(2.5)	1.1 J	ND(2.5)	5.6	ND(2.5)	*ND(0.12)*	2 J	ND(2.5)	ND(2.5)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-10	10/30/19	ND(5)	--	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	*ND(0.25)*	ND(5)	ND(5)	ND(5)
		03/03/20	ND(2.5)	--	ND(2.5)	1.21 J	ND(2.5)	2.8	ND(2.5)	*ND(0.12)*	1.33 J	ND(2.5)	ND(2.5)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	ND(10.2)	*ND(10.2)*	*ND(10.2)*	ND(10.2)	ND(10.2)	ND(10.2)	ND(10.2)	*ND(10.2)*	ND(10.2)	ND(10.2)	ND(10.2)
	MKTF-11	10/30/19	ND(5)	--	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	*ND(0.25)*	ND(5)	ND(5)	ND(5)
		03/03/20	ND(2.5)	--	ND(2.5)	4.3	ND(2.5)	1.25 J	ND(2.5)	*ND(0.12)*	0.67 J	ND(2.5)	ND(2.5)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-12	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-13	10/29/19	ND(5)	--	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	*ND(0.25)*	ND(5)	ND(5)	ND(5)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-14	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-15	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-16	10/30/19	ND(5)	--	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	*ND(0.25)*	ND(5)	ND(5)	ND(5)
		2/5/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		9/14/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/23/2020	--	--	--	--	--	--	--	--	--	--	--
	MKTF-17	10/29/19	ND(10)	--	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	*ND(0.5)*	ND(10)	ND(10)	ND(10)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	Selected Screening Levels		NA	0.137	9.81	55.64	NA	NA	34.3	0.034	NA	14,801	612

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Di-n-butyl-phthalate (ug/L)	Di-n-octyl-phthalate (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Hexachloro-benzene (ug/L)	Hexachloro-butadiene (ug/L)	Hexachloro-cyclopentadiene (ug/L)	Hexachloro-ethane (ug/L)	Indeno-(1,2,3-cd) pyrene (ug/L)	Isophorone (ug/L)	Naphthalene (ug/L)	Nitrobenzene (ug/L)	N-Nitroso-dimethylamine (ug/L)
Eastern Boundary	OW-14	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-29	02/24/20	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--	--	--	--	--	--	--
	OW-30	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-54	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-55	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-56	10/15/19	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*	--
		03/02/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		09/21/20	--	--	--	--	--	--	--	--	--	--	--	--	--
Tank Farm	OW-57	11/05/19	ND(0.5)	ND(0.5)	ND(0.5)	2.4	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	**140**	ND(0.5)	--
	OW-57	03/05/20	ND(2.5)	ND(2.5)	ND(2.5)	3.3	*ND(2.5)*	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(1)	ND(2.5)	**130**	*ND(2.5)*	--
	OW-58	11/18/19	ND(1)	ND(1)	ND(1)	3.6	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(0.4)	ND(1)	**180**	ND(1)	--
	OW-58A	03/06/20	ND(2.5)	ND(2.5)	ND(2.5)	6.9	*ND(2.5)*	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(1)	ND(2.5)	**250 J**	*ND(2.5)*	--
	OW-61	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-62	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-63	11/18/19	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(1)	ND(2.5)	**350**	*ND(2.5)*	--
		03/04/20	ND(2.5)	ND(2.5)	ND(2.5)	1.44 J	*ND(2.5)*	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(1)	ND(2.5)	**250 J**	*ND(2.5)*	--
		09/16/20	ND(5)	ND(5)	ND(5)	ND(5)	*ND(5) UJ*	ND(5)	*ND(5)*	*ND(5)*	ND(2)	ND(5)	**260**	*ND(5)*	*ND(5)*
		12/11/20	ND(9.24)	ND(9.24)	ND(9.24)	ND(9.24)	*ND(9.24)*	--	*ND(18.5) R*	*ND(9.24)*	ND(9.24)	ND(9.24)	**256 J**	*ND(9.24)*	*ND(9.24)*
	OW-64	11/18/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	2.3	ND(0.5)	--
		03/04/20	ND(0.5)	ND(0.5)	0.28 J	0.25 J	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	4.6 J	ND(0.5)	--
		09/22/20	ND(0.51)	ND(0.51)	0.27 J	0.27 J	*ND(0.51)*	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.21)	ND(0.51)	6	ND(0.51)	*ND(0.51)*
		12/11/20	ND(9.41)	ND(9.41)	ND(9.41)	ND(9.41)	*ND(9.41)*	--	*ND(18.8) R*	*ND(9.41)*	ND(9.41)	ND(9.41)	ND(9.41)	*ND(9.41)*	*ND(9.41)*
	OW-65	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-2	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		12/8/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-02	11/19/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	0.66	ND(0.5)	--
		02/25/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(1)	ND(2.5)	15	*ND(2.5)*	--
		09/21/20	ND(2.5)	ND(2.5)	ND(2.5)	0.65 J	*ND(2.5)*	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(1)	ND(2.5)	4	*ND(2.5)*	*ND(2.5)*
		12/18/20	ND(11.4)	ND(11.4)	ND(11.4)	ND(11.4)	*ND(11.4) UJ*	--	*ND(22.7)*	*ND(11.4)*	ND(11.4)	ND(11.4)	ND(11.4)	*ND(11.4)*	*ND(11.4)*
	MKTF-03	10/30/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		3/5/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		9/15/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/3/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-04	10/30/19	ND(5)	ND(5)	ND(5)	6.2	*ND(5)*	ND(5)	*ND(5)*	*ND(5)*	ND(2)	ND(5)	**220**	*ND(5)*	--
		03/03/20	ND(2.5)	ND(2.5)	ND(2.5)	5.4	*ND(2.5)*	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(1)	ND(2.5)	**200 J**	*ND(2.5)*	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-05	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-06	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-07	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-08	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-09	11/18/19	ND(1)	ND(1)	ND(1)	9.2	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(0.4)	ND(1)	**75**	ND(1)	--
		03/03/20	ND(2.5)	ND(2.5)	ND(2.5)	6.2	*ND(2.5)*	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(1)	ND(2.5)	**34**	*ND(2.5)*	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-10	10/30/19	ND(5)	ND(5)	ND(5)	ND(5)	*ND(5)*	ND(5)	*ND(5)*	*ND(5)*	ND(2)	ND(5)	**140**	*ND(5)*	--
		03/03/20	ND(2.5)	ND(2.5)	ND(2.5)	2.12 J	*ND(2.5)*	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(1)	ND(2.5)	**150 J**	*ND(2.5)*	--
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	ND(10.2)	ND(10.2)	ND(10.2)	ND(10.2)	*ND(10.2) UJ*	--	*ND(20.3)*	*ND(10.2)*	ND(10.2)	ND(10.2)	**104 J**	*ND(10.2)*	*ND(10.2)*
	MKTF-11	10/30/19	ND(5)	ND(5)	ND(5)	ND(5)	*ND(5)*	ND(5)	*ND(5)*	ND(5)	ND(2)	ND(5)	**49**	*ND(5)*	--
		03/03/20	ND(2.5)	ND(2.5)	ND(2.5)	0.68 J	*ND(2.5)*	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(1)	ND(2.5)	27	*ND(2.5)*	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-12	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-13	10/29/19	ND(5)	ND(5)	ND(5)	7.2	*ND(5)*	ND(5)	*ND(5)*	*ND(5)*	ND(2)	ND(5)	**130**	*ND(5)*	--
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-14	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-15	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-16	10/30/19	ND(5)	ND(5)	ND(5)	ND(5)	*ND(5)*	ND(5)	*ND(5)*	*ND(5)*	ND(2)	ND(5)	**120**	*ND(5)*	--
		2/5/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		9/14/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/23/2020	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-17	10/29/19	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(4)	ND(10)	**66**	*ND(10)*	--
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	Selected Screening Levels		885	NA	802	288	0.0976	NA	0.41	3.28	NA	781	30	1.4	0.0049

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	N-Nitrosodi-n-propylamine (ug/L)	N-Nitrosodiphenyl-amine (ug/L)	Pentachloro-phenol (ug/L)	Phenanthrene (ug/L)	Phenol (ug/L)	Pyrene (ug/L)	Pyridine (ug/L)	Benzidine (ug/L)	2,3,4,6-Tetrachlorophenol (ug/L)	2,3,5,6-Tetrachlorophenol (ug/L)	Dibenz(a,h)acridine (ug/L)	7,12-Dimethyl benz(a)anthracene (ug/L)	1,2-Diphenyl hydrazine (ug/L)	Quinoline (ug/L)	Thiophenol (Benzenethiol) (ug/L)
Eastern Boundary	OW-14	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-29	02/24/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	OW-30	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-54	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-55	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-56	10/15/19	--	ND(10)	*ND(20)*	ND(10)	ND(10)	ND(10)	ND(10)	--	--	--	--	--	--	--	--
		03/02/20	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tank Farm	OW-57	11/05/19	--	ND(0.5)	ND(0.5)	7.5	91	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
	OW-57	03/05/20	--	ND(2.5)	*ND(2.5)*	8	89	ND(2.5)	ND(2.5)	--	--	--	--	--	--	--	--
	OW-58	11/18/19	--	ND(1)	ND(1)	3.6	97	ND(1)	ND(1)	--	--	--	--	--	--	--	--
	OW-58A	03/06/20	--	ND(2.5)	*ND(2.5)*	6.1	58	ND(2.5)	ND(2.5)	--	--	--	--	--	--	--	--
	OW-61	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-62	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-63	11/18/19	--	ND(2.5)	*ND(2.5)*	ND(2.5)	44	ND(2.5)	ND(2.5)	--	--	--	--	--	--	--	--
		03/04/20	--	ND(2.5)	*ND(2.5)*	1.4 J	50	ND(2.5)	ND(2.5)	--	--	--	--	--	--	--	--
		09/16/20	*ND(5)*	ND(5)	*ND(5)*	ND(5)	46	ND(5)	ND(5)	*ND(5)*	ND(5)	ND(5)	--	--	--	--	--
		12/11/20	*ND(9.24)*	ND(9.24)	*ND(18.5)*	ND(9.24)	53.9	ND(9.24)	ND(9.24)	--	--	--	--	--	--	--	--
	OW-64	11/18/19	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		03/04/20	--	ND(0.5)	ND(0.5)	1.3	0.62	0.21 J	ND(0.5)	--	--	--	--	--	--	--	--
		09/22/20	*ND(0.51)*	ND(0.51)	ND(0.51)	0.88	3.1	0.18 J	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	--	--	--	--	--
		12/11/20	*ND(9.41)*	ND(9.41)	*ND(18.8)*	ND(9.41)	ND(9.41)	ND(9.41)	ND(9.41)	--	--	--	--	--	--	--	--
	OW-65	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-2	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		12/8/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-02	11/19/19	--	ND(0.5)	ND(0.5)	ND(0.5)	4.9	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		02/25/20	--	ND(2.5)	*ND(2.5)*	ND(2.5)	7.7	ND(2.5)	ND(2.5)	--	--	--	--	--	--	--	--
		09/21/20	*ND(2.5)*	ND(2.5)	*ND(2.5)*	ND(2.5)	20	ND(2.5)	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(2.5)	--	--	--	--	--
		12/18/20	*ND(11.4)*	ND(11.4)	*ND(22.7)*	ND(11.4)	20.1	ND(11.4)	ND(11.4) R	--	--	--	--	--	--	--	--
	MKTF-03	10/30/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		3/5/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		9/15/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/3/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-04	10/30/19	--	ND(5)	*ND(5)*	5.9	ND(5)	ND(5)	ND(5)	--	--	--	--	--	--	--	--
		03/03/20	--	ND(2.5)	*ND(2.5)*	4	10	ND(2.5)	ND(2.5)	--	--	--	--	--	--	--	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-05	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-07	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-08	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-09	11/18/19	--	ND(1)	ND(1)	11	26	ND(1)	ND(1)	--	--	--	--	--	--	--	--
		03/03/20	--	ND(2.5)	*ND(2.5)*	6.9	43	ND(2.5)	ND(2.5)	--	--	--	--	--	--	--	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-10	10/30/19	--	ND(5)	*ND(5)*	ND(5)	5.4	ND(5)	ND(5)	--	--	--	--	--	--	--	--
		03/03/20	--	ND(2.5)	*ND(2.5)*	1.72 J	64	ND(2.5)	ND(2.5)	--	--	--	--	--	--	--	--
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	*ND(10.2)*	ND(10.2)	*ND(20.3)*	ND(10.2)	30.1	ND(10.2)	ND(10.2) R	--	--	--	--	--	--	--	--
	MKTF-11	10/30/19	--	ND(5)	*ND(5)*	ND(5)	18	ND(5)	ND(5)	--	--	--	--	--	--	--	--
		03/03/20	--	ND(2.5)	*ND(2.5)*	ND(2.5)	99	ND(2.5)	ND(2.5)	--	--	--	--	--	--	--	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-12	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-13	10/29/19	--	ND(5)	*ND(5)*	7.8	38	ND(5)	ND(5)	--	--	--	--	--	--	--	--
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-14	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-15	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-16	10/30/19	--	ND(5)	*ND(5)*	ND(5)	44	ND(5)	ND(5)	--	--	--	--	--	--	--	--
		2/5/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		9/14/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/23/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-17	10/29/19	--	ND(10)	*ND(10)*	ND(10)	100	ND(10)	ND(10)	--	--	--	--	--	--	--	--
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	Selected Screening Levels		0.027	122	1	170	5,761	117	NA	0.0011	NA	NA	NA	NA	0.780	NA	NA

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Aldrin (ug/L)	alpha-BHC (ug/L)	beta-BHC (ug/L)	delta-BHC (ug/L)	Lindane (ug/L)	Chlordane (ug/L)	4,4'-DDD (ug/L)	4,4'-DDE (ug/L)	2,4-DDE (ug/L)	4,4'-DDT (ug/L)	Dieldrin (ug/L)	Endosulfan I (ug/L)	Endosulfan II (ug/L)	Endosulfan Sulfate (ug/L)	Endrin (ug/L)	Endrin Aldehyde (ug/L)	Heptachlor (ug/L)	Heptachlor Epoxide (ug/L)	Methyoxy-chlor (ug/L)	Toxaphene (ug/L)
Eastern Boundary	OW-14	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-29	02/24/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	OW-30	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-54	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-55	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-56	10/15/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		03/02/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tank Farm	OW-57	11/05/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	OW-57	03/05/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	OW-58	11/18/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	OW-58A	03/06/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	OW-61	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-62	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-63	11/18/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		03/04/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/16/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/11/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	OW-64	11/18/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		03/04/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/22/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/11/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	OW-65	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-2	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		12/8/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-02	11/19/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		02/25/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/18/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-03	10/30/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		3/5/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		9/15/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/3/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-04	10/30/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		03/03/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-05	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-06	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-07	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-08	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-09	11/18/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		03/03/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-10	10/30/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		03/03/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-11	10/30/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		03/03/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-12	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-13	10/29/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-14	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-15	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-16	10/30/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		2/5/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		9/14/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/23/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-17	10/29/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	Selected Screening Levels		0.002	0.069	0.243	NA	0.415	0.448	0.317	0.462	0.462	2.29	0.018	98.7	98.7	NA	2.23	NA	0.0221	0.2	40	0.158

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	1,2,4-Trichloro-benzene (ug/L)	1,2-Dichloro-benzene (ug/L)	1,3-Dichloro-benzene (ug/L)	1,4-Dichloro-benzene (ug/L)	1,4-Dioxane (ug/L)	1-Methylnaphthalene (ug/L)	2,4,5-Trichlorophenol (ug/L)	2,4,6-Trichlorophenol (ug/L)	2,4-Dichlorophenol (ug/L)	2,4-Dimethylphenol (ug/L)
Marketing Tank Farm Area	MKTF-18	10/29/19	ND(1)	ND(1)	ND(1)	ND(1)	**10**	**81**	ND(1)	ND(1)	ND(1)	ND(1)
		02/06/20	ND(1)	ND(1)	ND(1)	ND(1)	**11**	**55**	ND(1)	ND(1)	ND(1)	ND(1)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	ND(10.9)	ND(10.9)	ND(10.9)	ND(10.9)	--	--	ND(10.9)	ND(10.9)	ND(10.9)	ND(10.9)
	MKTF-19	10/29/19	ND(5)	ND(5)	ND(5)	ND(5)	**43**	**150**	ND(5)	ND(5)	ND(5)	ND(5)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-20	11/05/19	ND(5)	ND(5)	ND(5)	ND(5)	*ND(10)*	8.6	ND(5)	ND(5)	ND(5)	ND(5)
		2/5/2021	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-21	11/05/19	ND(5)	ND(5)	ND(5)	ND(5)	*ND(10)*	**49**	ND(5)	**19**	ND(5)	260
		2/5/2021	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
		9/15/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-22	10/24/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	**15**	**41**	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		2/27/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		9/14/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-23	10/29/19	ND(30)	ND(30)	ND(30)	ND(30)	*ND(50)*	**2400**	ND(30)	*ND(30)*	ND(30)	ND(30)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-24	10/23/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	**31**	5.4	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	**40 J-**	8.1	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/19/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	**31**	3.6	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/18/20	ND(10)	ND(10)	ND(10)	ND(10)	--	--	ND(10)	ND(10) UJ	ND(10) UJ	ND(10)
	MKTF-25	10/23/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	**100**	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/27/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	**100**	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	ND(11.2)	ND(11.2)	ND(11.2)	ND(11.2)	--	--	ND(11.2)	ND(11.2) UJ	ND(11.2) UJ	ND(11.2)
	MKTF-26	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-27	10/23/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	**6.8**	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	2.1 J-	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	4.1	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/18/20	ND(12.3)	ND(12.3)	ND(12.3)	ND(12.3)	--	--	ND(12.3)	*ND(12.3) UJ*	ND(12.3) UJ	ND(12.3)
	MKTF-28	10/22/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	0.42 J-	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	0.27 J	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/18/20	ND(12.1)	ND(12.1)	ND(12.1)	ND(12.1)	--	--	ND(12.1)	*ND(12.1) UJ*	ND(12.1) UJ	ND(12.1)
	MKTF-29	10/22/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	2.2	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	3.1 J-	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	2.6	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/15/20	ND(11)	ND(11)	ND(11)	ND(11)	--	--	ND(11)	ND(11)	ND(11)	ND(11)
	MKTF-30	10/23/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	**43**	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/27/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	**35**	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	**35**	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/15/20	ND(11.2)	ND(11.2)	ND(11.2)	ND(11.2)	--	--	ND(11.2)	ND(11.2)	ND(11.2)	ND(11.2)
	MKTF-31	10/22/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	**140**	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	**210 J-**	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/19/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	**150**	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/18/20	ND(11.6)	ND(11.6)	ND(11.6)	ND(11.6)	--	--	ND(11.6)	ND(11.6) UJ	ND(11.6) UJ	ND(11.6)
	MKTF-32	10/23/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	**97**	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/27/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	**87**	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/21/20	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	**68 J**	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/15/20	ND(10.9)	ND(10.9)	ND(10.9)	ND(10.9)	--	--	ND(10.9)	ND(10.9)	ND(10.9)	ND(10.9)
	MKTF-33	10/24/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/28/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	3.4	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-34	10/29/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	3	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/05/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	0.7 J	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/28/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/16/20	ND(1)	ND(1)	ND(1)	ND(1)	2	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	MKTF-35	10/29/19	ND(0.5)	ND(0.5)	ND(0.5)	3.2	2.6	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/06/20	ND(2.5)	ND(2.5)	ND(2.5)	4.7	3.3 J	5.5	ND(2.5)	ND(2.5)	ND(2.5)	25
		09/16/20	ND(5)	ND(5)	ND(5)	ND(5)	2 J	7.1	ND(5)	ND(5)	ND(5)	ND(5)
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-36	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/18/20	ND(5) UJ	ND(5) UJ	ND(5) UJ	ND(5) UJ	*ND(5) UJ*	**440 J**	ND(5) UJ	ND(5) UJ	ND(5) UJ	100 J
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-37	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/17/20	ND(4.2) UJ	ND(4.2) UJ	ND(4.2) UJ	ND(4.2) UJ	**46 J**	**79 J**	ND(4.2) UJ	ND(4.2) UJ	ND(4.2) UJ	ND(4.2) UJ
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Selected Screening Levels			70	600	NA	75	4.59	11.38	1,166	11.9	45.3	354

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	2,4-Dinitrophenol (ug/L)	2,4-Dinitrotoluene (ug/L)	2,6-Dinitrotoluene (ug/L)	2-Chloronaphthalene (ug/L)	2-Chlorophenol (ug/L)	2-Methylnaphthalene (ug/L)	2-Methylphenol (ug/L)	2-Nitroaniline (ug/L)	2-Nitrophenol (ug/L)	3,3'-Dichlorobenzidine (ug/L)
Marketing Tank Farm Area	MKTF-18	10/29/19	ND(1)	ND(1)	ND(0.4)	ND(1)	ND(1)	26	ND(1)	ND(1)	ND(1)	ND(1)
		02/06/20	ND(1)	ND(1)	ND(0.4)	ND(1)	ND(1)	8.3	ND(1)	ND(1)	ND(1)	ND(1)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	ND(32.6) UJ	*ND(10.9)*	*ND(10.9)*	ND(10.9) UJ	ND(10.9)	--	ND(10.9)	ND(10.9)	ND(10.9)	*ND(10.9)*
	MKTF-19	10/29/19	ND(5)	*ND(5)*	*ND(4)*	ND(5)	ND(5)	**230**	ND(5)	ND(5)	ND(5)	*ND(5)*
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-20	11/05/19	ND(5)	ND(2)	*ND(5)*	ND(5)	ND(5)	11	ND(5)	ND(5)	ND(5)	*ND(5)*
		2/5/2021	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-21	11/05/19	ND(5)	ND(2)	*ND(5)*	ND(5)	ND(5)	**57**	ND(5)	ND(5)	ND(5)	*ND(5)*
		2/5/2021	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
		9/15/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-22	10/24/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	1.5	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		2/27/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		9/14/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-23	10/29/19	ND(30)	*ND(30)*	*ND(30)*	ND(30)	ND(30)	**3500**	ND(30)	ND(30)	ND(30)	*ND(30)*
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-24	10/23/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/19/20	ND(0.51)	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/18/20	ND(30.1)	*ND(10) UJ*	*ND(10)*	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10) UJ	*ND(10)*
	MKTF-25	10/23/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/27/20	ND(2.5)	*ND(2.5)*	*ND(1)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	ND(33.6)	*ND(11.2) UJ*	*ND(11.2)*	ND(11.2)	ND(11.2)	--	ND(11.2)	ND(11.2)	ND(11.2) UJ	*ND(11.2)*
	MKTF-26	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-27	10/23/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	ND(0.51)	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/18/20	ND(37)	*ND(12.3) UJ*	*ND(12.3)*	ND(12.3)	ND(12.3)	--	ND(12.3)	ND(12.3)	ND(12.3) UJ	*ND(12.3)*
	MKTF-28	10/22/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	ND(0.51)	ND(0.51)	ND(0.21)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/18/20	ND(36.3)	*ND(12.1) UJ*	*ND(12.1)*	ND(12.1)	ND(12.1)	--	ND(12.1)	ND(12.1)	ND(12.1) UJ	*ND(12.1)*
	MKTF-29	10/22/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	ND(0.51)	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/15/20	ND(33.1)	*ND(11)*	*ND(11)*	ND(11) UJ	ND(11)	--	ND(11)	ND(11)	ND(11)	*ND(11)*
	MKTF-30	10/23/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/27/20	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	ND(0.51)	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/15/20	ND(33.7)	*ND(11.2)*	*ND(11.2)*	ND(11.2) UJ	ND(11.2)	--	ND(11.2)	ND(11.2)	ND(11.2)	*ND(11.2)*
	MKTF-31	10/22/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/19/20	ND(0.51)	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/18/20	ND(34.7)	*ND(11.6) UJ*	*ND(11.6)*	ND(11.6)	ND(11.6)	--	ND(11.6)	ND(11.6)	ND(11.6) UJ	*ND(11.6)*
	MKTF-32	10/23/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/27/20	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/21/20	ND(0.52)	ND(0.52)	ND(0.21)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/15/20	ND(32.8)	*ND(10.9)*	*ND(10.9)*	ND(10.9) UJ	ND(10.9)	--	ND(10.9)	ND(10.9)	ND(10.9)	*ND(10.9)*
	MKTF-33	10/24/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/28/20	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-34	10/29/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/05/20	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/28/20	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/16/20	ND(1)	ND(1)	ND(0.4)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	MKTF-35	10/29/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/06/20	ND(2.5)	*ND(2.5)*	*ND(1)*	ND(2.5)	ND(2.5)	5	30	ND(2.5)	ND(2.5)	*ND(2.5)*
		09/16/20	ND(5)	*ND(5)*	*ND(2)*	ND(5)	ND(5)	6.7	ND(5)	ND(5)	ND(5)	*ND(5)*
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-36	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/18/20	ND(5) UJ	*ND(5) UJ*	*ND(2) UJ*	ND(5) UJ	ND(5) UJ	**780 J**	ND(5) UJ	ND(5) UJ	ND(5) UJ	*ND(5) UJ*
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-37	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/17/20	ND(4.2) UJ	*ND(4.2) UJ*	*ND(1.7) UJ*	ND(4.2) UJ	ND(4.2) UJ	**100 J**	ND(4.2) UJ	ND(4.2) UJ	ND(4.2) UJ	*ND(4.2) UJ*
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Selected Screening Levels			38.7	2.38	0.485	733	91	35.1	NA	NA	NA	1.25

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	3,4-Methylphenol (ug/L)	3-Nitroaniline (ug/L)	2-Methyl-4,6-dinitrophenol (ug/L)	4-Bromophenylphenylether (ug/L)	4-Chloro-3-Methylphenol (ug/L)	4-Chloroaniline (ug/L)	4-Chlorophenyl-phenylether (ug/L)	4-Nitroaniline (ug/L)	4-Nitrophenol (ug/L)	Acenaphthene (ug/L)
Marketing Tank Farm Area	MKTF-18	10/29/19	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	--	ND(1)	ND(1)	ND(1)	6.9
		02/06/20	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	--	ND(1)	ND(1)	ND(1)	7
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	--	ND(10.9)	ND(10.9) UJ	ND(10.9)	ND(10.9)	ND(10.9)	ND(10.9)	ND(10.9)	ND(10.9) UJ	ND(10.9) UJ
	MKTF-19	10/29/19	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	--	ND(5)	ND(5)	ND(5)	ND(5)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-20	11/05/19	28	ND(5)	ND(5)	ND(5)	ND(5)	--	ND(5)	ND(5)	ND(5)	ND(5)
		2/5/2021	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-21	11/05/19	30	ND(5)	ND(5)	ND(5)	ND(5)	--	ND(5)	ND(5)	ND(5)	ND(5)
		2/5/2021	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
		9/15/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-22	10/24/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	3.6
		2/27/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		9/14/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-23	10/29/19	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	--	ND(30)	ND(30)	ND(30)	80
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-24	10/23/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	0.55
		02/25/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/19/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	0.31 J
		12/18/20	--	ND(10)	ND(10)	ND(10) UJ	ND(10)	ND(10)	ND(10) UJ	ND(10)	ND(10)	ND(10)
	MKTF-25	10/23/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/27/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	--	ND(11.2)	ND(11.2)	ND(11.2) UJ	ND(11.2)	ND(11.2)	ND(11.2) UJ	ND(11.2)	ND(11.2)	ND(11.2)
	MKTF-26	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-27	10/23/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/18/20	--	ND(12.3)	ND(12.3)	ND(12.3) UJ	ND(12.3)	ND(12.3)	ND(12.3) UJ	ND(12.3)	ND(12.3)	ND(12.3)
	MKTF-28	10/22/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/18/20	--	ND(12.1)	ND(12.1)	ND(12.1) UJ	ND(12.1)	ND(12.1)	ND(12.1) UJ	ND(12.1)	ND(12.1)	ND(12.1)
	MKTF-29	10/22/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/15/20	--	ND(11)	ND(11) UJ	ND(11)	ND(11)	ND(11)	ND(11)	ND(11)	ND(11) UJ	ND(11) UJ
	MKTF-30	10/23/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/27/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/15/20	--	ND(11.2)	ND(11.2) UJ	ND(11.2)	ND(11.2)	ND(11.2)	ND(11.2)	ND(11.2)	ND(11.2) UJ	ND(11.2) UJ
	MKTF-31	10/22/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/19/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/18/20	--	ND(11.6)	ND(11.6)	ND(11.6) UJ	ND(11.6)	ND(11.6)	ND(11.6) UJ	ND(11.6)	ND(11.6)	ND(11.6)
	MKTF-32	10/23/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/27/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/21/20	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/15/20	--	ND(10.9)	ND(10.9) UJ	ND(10.9)	ND(10.9)	ND(10.9)	ND(10.9)	ND(10.9)	ND(10.9) UJ	ND(10.9) UJ
	MKTF-33	10/24/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/28/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-34	10/29/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/05/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/28/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/16/20	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	MKTF-35	10/29/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	1.2
		02/06/20	13	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	1.57
		09/16/20	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-36	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/18/20	240 J	ND(5) UJ	ND(5) UJ	ND(5) UJ	ND(5) UJ	ND(5) UJ	ND(5) UJ	ND(5) UJ	ND(5) UJ	12 J
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-37	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/17/20	10 J	ND(4.2) UJ	ND(4.2) UJ	ND(4.2) UJ	ND(4.2) UJ	ND(4.2) UJ	ND(4.2) UJ	ND(4.2) UJ	ND(4.2) UJ	ND(4.2) UJ
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Selected Screening Levels			NA	NA	NA	NA	NA	NA	NA	NA	NA	535

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Acenaphthylene (ug/L)	Aniline (ug/L)	Anthracene (ug/L)	Azobenzene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluor-anthene (ug/L)	Benzo(ghi)perylene (ug/L)	Benzo(k)fluor-anthene (ug/L)	Benzoic Acid (ug/L)	Benzyl Alcohol (ug/L)
Marketing Tank Farm Area	MKTF-18	10/29/19	ND(1)	ND(1)	ND(1)	--	ND(0.2)	ND(0.1)	ND(0.2)	ND(1)	ND(1)	ND(5)	ND(1)
		02/06/20	ND(1)	ND(1)	ND(1)	--	ND(0.2)	ND(0.2)	ND(0.2)	ND(1)	ND(1)	ND(1)	ND(1)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	ND(10.9)	ND(10.9)	ND(10.9)	ND(10.9) UJ	ND(10.9)	*ND(10.9)*	*ND(10.9)*	ND(10.9)	*ND(10.9)*	ND(32.6) R	ND(10.9)
	MKTF-19	10/29/19	ND(5)	ND(5)	ND(5)	--	ND(1)	*ND(1)*	*ND(1)*	ND(5)	*ND(5)*	ND(5)	ND(5)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-20	11/05/19	ND(5)	ND(5)	ND(5)	--	ND(1)	*ND(1)*	*ND(1)*	ND(5)	*ND(5)*	ND(10)	ND(5)
		2/5/2021	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-21	11/05/19	ND(5)	ND(5)	ND(5)	--	ND(1)	*ND(1)*	*ND(1)*	ND(5)	*ND(5)*	ND(10)	ND(5)
		2/5/2021	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
		9/15/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-22	10/24/19	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		2/27/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		9/14/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-23	10/29/19	ND(30)	ND(30)	ND(30)	--	ND(30)	*ND(30)*	*ND(30)*	ND(30)	*ND(30)*	ND(25)	ND(30)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-24	10/23/19	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/19/20	ND(0.51)	ND(0.51)	ND(0.51)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/18/20	*ND(10)*	*ND(10) R*	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(30.1)	ND(10)
	MKTF-25	10/23/19	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/27/20	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	*ND(11.2)*	*ND(11.2) R*	ND(11.2)	*ND(11.2)*	ND(11.2)	*ND(11.2)*	*ND(11.2)*	ND(11.2)	*ND(11.2)*	ND(33.6)	ND(11.2)
	MKTF-26	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-27	10/23/19	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	ND(0.51)	ND(0.51)	ND(0.51)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/18/20	ND(12.3)	ND(12.3) R	ND(12.3)	ND(12.3)	ND(12.3)	*ND(12.3)*	*ND(12.3)*	ND(12.3)	*ND(12.3)*	ND(37)	ND(12.3)
	MKTF-28	10/22/19	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	ND(0.51)	ND(0.51)	ND(0.51)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/18/20	ND(12.1)	ND(12.1) R	ND(12.1)	ND(12.1)	ND(12.1)	*ND(12.1)*	*ND(12.1)*	ND(12.1)	*ND(12.1)*	ND(36.3)	ND(12.1)
	MKTF-29	10/22/19	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	ND(0.51)	ND(0.51)	ND(0.51)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/15/20	ND(11)	ND(11)	ND(11)	ND(11) UJ	ND(11)	*ND(11)*	*ND(11)*	ND(11)	*ND(11)*	ND(33.1) R	ND(11)
	MKTF-30	10/23/19	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/27/20	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	ND(0.51)	ND(0.51)	ND(0.51)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/15/20	ND(11.2)	ND(11.2)	ND(11.2)	ND(11.2) UJ	ND(11.2)	*ND(11.2)*	*ND(11.2)*	ND(11.2)	*ND(11.2)*	ND(33.7) R	ND(11.2)
	MKTF-31	10/22/19	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/19/20	ND(0.51)	ND(0.51)	ND(0.51)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/18/20	ND(11.6)	ND(11.6) R	ND(11.6)	ND(11.6)	ND(11.6)	*ND(11.6)*	*ND(11.6)*	ND(11.6)	*ND(11.6)*	ND(34.7)	ND(11.6)
	MKTF-32	10/23/19	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/27/20	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/21/20	ND(0.52)	ND(0.52)	ND(0.52)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/15/20	ND(10.9)	ND(10.9)	ND(10.9)	ND(10.9) UJ	ND(10.9)	*ND(10.9)*	*ND(10.9)*	ND(10.9)	*ND(10.9)*	ND(32.8) R	ND(10.9)
	MKTF-33	10/24/19	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/28/20	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-34	10/29/19	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/05/20	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/28/20	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/16/20	ND(1)	ND(1)	ND(1)	--	ND(0.2)	ND(0.2)	ND(0.2)	ND(1)	ND(1)	ND(1)	ND(1)
	MKTF-35	10/29/19	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/06/20	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(2.5)	ND(2.5)	2.3 J	ND(2.5)
		09/16/20	ND(5)	ND(5)	ND(5)	--	ND(1)	*ND(1)*	*ND(1)*	ND(5)	*ND(5)*	ND(5)	ND(5)
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-36	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/18/20	3.6 J	ND(5) UJ	ND(5) UJ	--	ND(1) UJ	*ND(1) UJ*	*ND(1) UJ*	ND(5) UJ	*ND(5) UJ*	ND(5) UJ	ND(5) UJ
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-37	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/17/20	ND(4.2) UJ	ND(4.2) UJ	ND(4.2) UJ	--	ND(0.83) UJ	*ND(0.83) UJ*	*ND(0.83) UJ*	ND(4.2) UJ	*ND(4.2) UJ*	ND(4.2) UJ	ND(4.2) UJ
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Selected Screening Levels			NA	NA	1,721	NA	NA	0.2	0.34	NA	3.43	NA	NA

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Bis(2chloro ethoxy)methane (ug/L)	Bis(2-chloro ethyl)ether (ug/L)	Bis(2chloro isopropyl)ether (ug/L)	Bis(2-ethyl hexyl)phthalate (ug/L)	Benzyl Butyl Phthalate (ug/L)	Carbazole (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Dibenzofuran (ug/L)	Diethylphthalate (ug/L)	Dimethyl Phthalate (ug/L)
Marketing Tank Farm Area	MKTF-18	10/29/19	ND(1)	--	ND(1)	ND(1)	ND(1)	1.8	ND(1)	*ND(0.12)*	2.7	ND(1)	ND(1)
		02/06/20	ND(1)	--	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(0.025)	ND(1)	ND(1)	ND(1)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	ND(10.9) UJ	*ND(10.9)*	*ND(10.9)*	ND(10.9)	ND(10.9)	ND(10.9) UJ	ND(10.9)	*ND(10.9)*	ND(10.9)	ND(10.9)	ND(10.9)
	MKTF-19	10/29/19	ND(5)	--	ND(5)	ND(5)	ND(5)	8.6	ND(5)	*ND(0.5)*	ND(5)	ND(5)	ND(5)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-20	11/05/19	ND(5)	--	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	*ND(0.25)*	ND(5)	ND(5)	ND(5)
		2/5/2021	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-21	11/05/19	ND(5)	--	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	*ND(0.25)*	ND(5)	ND(5)	ND(5)
		2/5/2021	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
		9/15/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-22	10/24/19	ND(0.5)	--	ND(0.5)	2.3	ND(0.5)	12	ND(0.5)	*ND(0.025)*	2.4	ND(0.5)	ND(0.5)
		2/27/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		9/14/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-23	10/29/19	ND(30)	--	*ND(30)*	ND(30)	ND(30)	ND(30)	ND(30)	*ND(1)*	ND(30)	ND(30)	ND(30)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-24	10/23/19	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(0.5)	--	ND(0.5)	1.8	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		09/19/20	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	0.22 J	ND(0.51)	ND(0.031)	ND(0.51)	ND(0.51)	ND(0.51)
		12/18/20	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
	MKTF-25	10/23/19	ND(0.5)	--	ND(0.5)	1.4	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		02/27/20	ND(2.5)	--	ND(2.5)	1.42 J	ND(2.5)	ND(2.5)	ND(2.5)	*ND(0.12)*	ND(2.5)	ND(2.5)	ND(2.5)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	ND(11.2)	*ND(11.2)*	*ND(11.2)*	ND(11.2)	ND(11.2)	ND(11.2)	ND(11.2)	*ND(11.2)*	ND(11.2)	ND(11.2)	ND(11.2)
	MKTF-26	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-27	10/23/19	ND(0.5)	--	ND(0.5)	2.4	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(0.5)	--	ND(0.5)	0.36 J	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.03)	ND(0.51)	ND(0.51)	ND(0.51)
		12/18/20	ND(12.3)	*ND(12.3)*	*ND(12.3)*	ND(12.3)	ND(12.3)	ND(12.3)	ND(12.3)	*ND(12.3)*	ND(12.3)	ND(12.3)	ND(12.3)
	MKTF-28	10/22/19	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(0.5)	--	ND(0.5)	0.37 J	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.031)	ND(0.51)	ND(0.51)	ND(0.51)
		12/18/20	ND(12.1)	*ND(12.1)*	*ND(12.1)*	ND(12.1)	ND(12.1)	ND(12.1)	ND(12.1)	*ND(12.1)*	ND(12.1)	ND(12.1)	ND(12.1)
	MKTF-29	10/22/19	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(0.5)	--	ND(0.5)	0.54	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.031)	ND(0.51)	ND(0.51)	ND(0.51)
		12/15/20	ND(11) UJ	*ND(11)*	*ND(11)*	ND(11)	ND(11)	ND(11) UJ	ND(11)	*ND(11)*	ND(11)	ND(11)	ND(11)
	MKTF-30	10/23/19	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		02/27/20	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.031)	ND(0.51)	ND(0.51)	ND(0.51)
		12/15/20	ND(11.2) UJ	*ND(11.2)*	*ND(11.2)*	ND(11.2)	ND(11.2)	ND(11.2) UJ	ND(11.2)	*ND(11.2)*	ND(11.2)	ND(11.2)	ND(11.2)
	MKTF-31	10/22/19	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		02/25/20	ND(0.5)	--	ND(0.5)	0.36 J	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		09/19/20	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.031)	ND(0.51)	ND(0.51)	ND(0.51)
		12/18/20	ND(11.6)	*ND(11.6)*	*ND(11.6)*	ND(11.6)	ND(11.6)	ND(11.6)	ND(11.6)	*ND(11.6)*	ND(11.6)	ND(11.6)	ND(11.6)
	MKTF-32	10/23/19	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		02/27/20	ND(0.5)	--	ND(0.5)	0.32 J	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		09/21/20	ND(0.52)	*ND(0.52)*	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.031)	ND(0.52)	ND(0.52)	ND(0.52)
		12/15/20	ND(10.9) UJ	*ND(10.9)*	*ND(10.9)*	ND(10.9)	ND(10.9)	ND(10.9) UJ	ND(10.9)	*ND(10.9)*	ND(10.9)	ND(10.9)	ND(10.9)
	MKTF-33	10/24/19	ND(0.5)	--	ND(0.5)	1.9	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		02/28/20	ND(0.5)	--	ND(0.5)	0.48 J	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-34	10/29/19	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.01)	ND(0.5)	ND(0.5)	ND(0.5)
		02/05/20	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		02/28/20	ND(0.5)	--	ND(0.5)	0.32 J	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		09/16/20	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(0.06)*	ND(1)	ND(1)	ND(1)
	MKTF-35	10/29/19	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.01)	1.1	ND(0.5)	ND(0.5)
		02/06/20	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(0.12)*	1.67	ND(2.5)	ND(2.5)
		09/16/20	ND(5)	*ND(5)*	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	*ND(0.3)*	ND(5)	ND(5)	ND(5)
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-36	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/18/20	ND(5) UJ	*ND(5) UJ*	ND(5) UJ	4.7 J	ND(5) UJ	ND(5) UJ	ND(5) UJ	*ND(0.3) UJ*	ND(5) UJ	3.1 J	ND(5) UJ
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-37	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/17/20	ND(4.2) UJ	*ND(4.2) UJ*	ND(4.2) UJ	40 J	ND(4.2) UJ	ND(4.2) UJ	ND(4.2) UJ	*ND(4.2) UJ*	ND(0.25) UJ	2.2 J	ND(4.2) UJ
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Selected Screening Levels			NA	0.137	9.81	55.64	NA	NA	34.3	0.034	NA	14,801	612

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Di-n-butyl-phthalate (ug/L)	Di-n-octyl-phthalate (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Hexachloro-benzene (ug/L)	Hexachloro-butadiene (ug/L)	Hexachloro-cyclopentadiene (ug/L)	Hexachloro-ethane (ug/L)	Indeno-(1,2,3-cd) pyrene (ug/L)	Isophorone (ug/L)	Naphthalene (ug/L)	Nitrobenzene (ug/L)	N-Nitroso-dimethylamine (ug/L)
Marketing Tank Farm Area	MKTF-18	10/29/19	ND(1)	ND(1)	ND(1)	6.9	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(0.4)	ND(1)	18	ND(1)	--
		02/06/20	ND(1)	ND(1)	ND(1)	6.8	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(0.4)	ND(1)	11	ND(1)	--
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	ND(10.9)	ND(10.9)	ND(10.9)	ND(10.9)	*ND(10.9)*	--	*ND(21.8) UJ*	*ND(10.9)*	ND(10.9)	ND(10.9) UJ	12.5	*ND(10.9) UJ*	*ND(10.9)*
	MKTF-19	10/29/19	ND(5)	ND(5)	ND(5)	6.7	*ND(5)*	ND(5)	*ND(5)*	*ND(5)*	ND(2)	ND(5)	8	*ND(5)*	--
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-20	11/05/19	ND(5)	ND(5)	ND(5)	ND(5)	*ND(5)*	ND(5)	*ND(5)*	*ND(5)*	ND(2)	ND(5)	**35**	*ND(5)*	--
		2/5/2021	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-21	11/05/19	ND(5)	ND(5)	ND(5)	ND(5)	*ND(5)*	ND(5)	*ND(5)*	*ND(5)*	ND(2)	ND(5)	**220**	*ND(5)*	--
		2/5/2021	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
		9/15/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-22	10/24/19	ND(0.5)	ND(0.5)	ND(0.5)	5	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	11	ND(0.5)	--
		2/27/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		9/14/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-23	10/29/19	ND(30)	ND(30)	ND(30)	200	*ND(30)*	ND(30)	*ND(30)*	*ND(30)*	ND(30)	ND(30)	**1200**	*ND(30)*	--
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-24	10/23/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	1	ND(0.5)	--
		02/25/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	1.6	ND(0.5)	--
		09/19/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.2)	ND(0.51)	0.78	ND(0.51)	*ND(0.51)*
		12/18/20	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10) UJ*	--	*ND(20.1)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*
	MKTF-25	10/23/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		02/27/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(1)	ND(2.5)	ND(2.5)	*ND(2.5)*	--
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	ND(11.2)	ND(11.2)	ND(11.2)	ND(11.2)	*ND(11.2) UJ*	--	*ND(22.4)*	*ND(11.2)*	ND(11.2)	ND(11.2)	ND(11.2)	*ND(11.2)*	*ND(11.2)*
	MKTF-26	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-27	10/23/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		02/25/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		09/20/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*
		12/18/20	ND(12.3)	ND(12.3)	ND(12.3)	ND(12.3)	*ND(12.3) UJ*	--	*ND(24.7)*	*ND(12.3)*	ND(12.3)	ND(12.3)	ND(12.3)	*ND(12.3)*	*ND(12.3)*
	MKTF-28	10/22/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		02/25/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		09/20/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.21)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*
		12/18/20	ND(12.1)	ND(12.1)	ND(12.1)	ND(12.1)	*ND(12.1) UJ*	--	*ND(24.2)*	*ND(12.1)*	ND(12.1)	ND(12.1)	ND(12.1)	*ND(12.1)*	*ND(12.1)*
	MKTF-29	10/22/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		02/25/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		09/20/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*
		12/15/20	ND(11)	ND(11) UJ	ND(11)	ND(11)	*ND(11)*	--	*ND(22) UJ*	*ND(11)*	ND(11)	ND(11) UJ	ND(11)	*ND(11) UJ*	*ND(11)*
	MKTF-30	10/23/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		02/27/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		09/20/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*
		12/15/20	ND(11.2)	ND(11.2) UJ	ND(11.2)	ND(11.2)	*ND(11.2)*	--	*ND(22.4) UJ*	*ND(11.2)*	ND(11.2)	ND(11.2) UJ	ND(11.2)	*ND(11.2) UJ*	*ND(11.2)*
	MKTF-31	10/22/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		02/25/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		09/19/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*
		12/18/20	ND(11.6)	ND(11.6)	ND(11.6)	ND(11.6)	*ND(11.6) UJ*	--	*ND(23.1)*	*ND(11.6)*	ND(11.6)	ND(11.6)	ND(11.6)	*ND(11.6)*	*ND(11.6)*
	MKTF-32	10/23/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.8)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		02/27/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		09/21/20	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	*ND(0.52)*	ND(0.52)	*ND(0.52)*	ND(0.52)	ND(0.21)	ND(0.52)	ND(0.52)	ND(0.52)	*ND(0.52)*
		12/15/20	ND(10.9)	ND(10.9) UJ	ND(10.9)	ND(10.9)	*ND(10.9)*	--	*ND(21.8) UJ*	*ND(10.9)*	ND(10.9)	ND(10.9) UJ	ND(10.9)	*ND(10.9) UJ*	*ND(10.9)*
	MKTF-33	10/24/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.8)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		02/28/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-34	10/29/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		02/05/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		02/28/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		09/16/20	ND(1)	ND(1)	ND(1)	ND(1)	*ND(1) UJ*	ND(1)	*ND(1)*	ND(1)	ND(0.4)	ND(1)	ND(1)	ND(1)	*ND(1)*
	MKTF-35	10/29/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		02/06/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(1)	ND(2.5)	**93**	*ND(2.5)*	--
		09/16/20	ND(5)	ND(5)	ND(5)	ND(5)	*ND(5) UJ*	ND(5)	*ND(5)*	*ND(5)*	ND(2)	ND(5)	**53**	*ND(5)*	*ND(5)*
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-36	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/18/20	ND(5) UJ	ND(5) UJ	ND(5) UJ	24 J	*ND(5) UJ*	ND(5) UJ	*ND(5) UJ*	*ND(5) UJ*	ND(2) UJ	ND(5) UJ	**810 J**	*ND(5) UJ*	*ND(5) UJ*
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-37	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/17/20	ND(4.2) UJ	ND(4.2) UJ	ND(4.2) UJ	ND(4.2) UJ	*ND(4.2) UJ*	ND(4.2) UJ	*ND(4.2) UJ*	*ND(4.2) UJ*	ND(1.7) UJ	ND(4.2) UJ	**290 J**	*ND(4.2) UJ*	*ND(4.2) UJ*
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Selected Screening Levels			885	NA	802	288	0.0976	NA	0.41	3.28	NA	781	30	1.4	0.0049

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	N-Nitrosodi-n-propylamine (ug/L)	N-Nitrosodiphenyl-amine (ug/L)	Pentachloro-phenol (ug/L)	Phenanthrene (ug/L)	Phenol (ug/L)	Pyrene (ug/L)	Pyridine (ug/L)	Benzidine (ug/L)	2,3,4,6-Tetrachlorophenol (ug/L)	2,3,5,6-Tetrachlorophenol (ug/L)	Dibenz(a,h)acridine (ug/L)	7,12-Dimethyl benz(a)anthracene (ug/L)	1,2-Diphenyl hydrazine (ug/L)	Quinoline (ug/L)	Thiophenol (Benzenethiol) (ug/L)
	MKTF-18	10/29/19	--	ND(1)	ND(1)	4.4	1.8	ND(1)	ND(1)	--	--	--	--	--	--	--	--
		02/06/20	--	ND(1)	ND(1)	2.5	1.9	ND(1)	ND(1)	--	--	--	--	--	--	--	--
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	*ND(10.9)*	ND(10.9) UJ	*ND(21.8) UJ*	ND(10.9)	ND(10.9) UJ	ND(10.9)	ND(10.9) UJ	--	--	--	--	--	--	--	--
	MKTF-19	10/29/19	--	ND(5)	*ND(5)*	5.8	27	ND(5)	ND(5)	--	--	--	--	--	--	--	--
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-20	11/05/19	--	ND(5)	*ND(5)*	ND(5)	30	ND(5)	ND(5)	--	--	--	--	--	--	--	--
		2/5/2021	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-21	11/05/19	--	ND(5)	*ND(5)*	ND(5)	95	ND(5)	ND(5)	--	--	--	--	--	--	--	--
		2/5/2021	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
		9/15/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-22	10/24/19	--	ND(0.5)	ND(0.5)	0.59	36	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		2/27/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		9/14/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-23	10/29/19	--	ND(30)	*ND(30)*	**340**	ND(30)	61	ND(30)	--	--	--	--	--	--	--	--
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-24	10/23/19	--	ND(0.5)	ND(0.5)	ND(0.5)	21	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		02/25/20	--	ND(0.5)	ND(0.5)	ND(0.5)	31 J	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		09/19/20	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	72	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	--	--	--	--	--
		12/18/20	*ND(10)*	ND(10)	*ND(20.1)*	ND(10)	54.8	ND(10)	ND(10) R	--	--	--	--	--	--	--	--
	MKTF-25	10/23/19	--	ND(0.5)	ND(0.5)	ND(0.5)	21	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		02/27/20	--	ND(2.5)	*ND(2.5)*	ND(2.5)	17	ND(2.5)	ND(2.5)	--	--	--	--	--	--	--	--
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	*ND(11.2)*	ND(11.2)	*ND(22.4)*	ND(11.2)	21.4	ND(11.2)	ND(11.2) R	--	--	--	--	--	--	--	--
	MKTF-26	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-27	10/23/19	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		02/25/20	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		09/20/20	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	--	--	--	--	--
		12/18/20	*ND(12.3)*	ND(12.3)	*ND(24.7)*	ND(12.3)	ND(12.3)	ND(12.3)	ND(12.3) R	--	--	--	--	--	--	--	--
	MKTF-28	10/22/19	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
Marketing		02/25/20	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
Tank Farm		09/20/20	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	--	--	--	--	--
Area		12/18/20	*ND(12.1)*	ND(12.1)	*ND(24.2)*	ND(12.1)	ND(12.1)	ND(12.1)	ND(12.1) R	--	--	--	--	--	--	--	--
	MKTF-29	10/22/19	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		02/25/20	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		09/20/20	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	--	--	--	--	--
		12/15/20	*ND(11)*	ND(11) UJ	*ND(22) UJ*	ND(11)	ND(11) UJ	ND(11)	ND(11) UJ	--	--	--	--	--	--	--	--
	MKTF-30	10/23/19	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		02/27/20	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		09/20/20	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	--	--	--	--	--
		12/15/20	*ND(11.2)*	ND(11.2) UJ	*ND(22.4) UJ*	ND(11.2)	ND(11.2) UJ	ND(11.2)	ND(11.2) UJ	--	--	--	--	--	--	--	--
	MKTF-31	10/22/19	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		02/25/20	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		09/19/20	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	--	--	--	--	--
		12/18/20	*ND(11.6)*	ND(11.6)	*ND(23.1)*	ND(11.6)	ND(11.6)	ND(11.6)	ND(11.6) R	--	--	--	--	--	--	--	--
	MKTF-32	10/23/19	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		02/27/20	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		09/21/20	*ND(0.52)*	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	*ND(0.52)*	ND(0.52)	ND(0.52)	--	--	--	--	--
		12/15/20	*ND(10.9)*	ND(10.9) UJ	*ND(21.8) UJ*	ND(10.9)	ND(10.9) UJ	ND(10.9)	ND(10.9) UJ	--	--	--	--	--	--	--	--
	MKTF-33	10/24/19	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		02/28/20	--	ND(0.5)	ND(0.5)	ND(0.5)	2.6	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-34	10/29/19	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		02/05/20	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		02/28/20	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		09/16/20	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	--	--	--	--	--
	MKTF-35	10/29/19	--	ND(0.5)	ND(0.5)	ND(0.5)	3.2	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		02/06/20	--	ND(2.5)	*ND(2.5)*	ND(2.5)	25	ND(2.5)	ND(2.5)	--	--	--	--	--	--	--	--
		09/16/20	*ND(5)*	ND(5)	*ND(5)*	ND(5)	25 J	ND(5)	ND(5)	*ND(5)*	ND(5)	ND(5)	--	--	--	--	--
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-36	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/18/20	*ND(5) UJ*	ND(5) UJ	*ND(5) UJ*	23 J	770 J	ND(5) UJ	ND(5) UJ	*ND(5) UJ*	ND(5) UJ	ND(5) UJ	--	--	--	--	--
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-37	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/17/20	*ND(4.2) UJ*	ND(4.2) UJ	*ND(4.2) UJ*	ND(4.2) UJ	21 J	ND(4.2) UJ	ND(4.2) UJ	*ND(4.2) UJ*	ND(4.2) UJ	ND(4.2) UJ	--	--	--	--	--
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Selected Screening Levels			0.027	122	1	170	5,761	117	NA	0.0011	NA	NA	NA	NA	0.780	NA	NA

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Aldrin (ug/L)	alpha-BHC (ug/L)	beta-BHC (ug/L)	delta-BHC (ug/L)	Lindane (ug/L)	Chlordane (ug/L)	4,4'-DDD (ug/L)	4,4'-DDE (ug/L)	2,4-DDE (ug/L)	4,4'-DDT (ug/L)	Dieldrin (ug/L)	Endosulfan I (ug/L)	Endosulfan II (ug/L)	Endosulfan Sulfate (ug/L)	Endrin (ug/L)	Endrin Aldehyde (ug/L)	Heptachlor (ug/L)	Heptachlor Epoxide (ug/L)	Methoxy-chlor (ug/L)	Toxaphene (ug/L)
	MKTF-18	10/29/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		02/06/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-19	10/29/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-20	11/05/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		2/5/2021	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-21	11/05/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		2/5/2021	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
		9/15/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-22	10/24/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		2/27/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		9/14/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-23	10/29/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-24	10/23/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		02/25/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/19/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/18/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-25	10/23/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		02/27/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-26	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-27	10/23/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		02/25/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/20/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/18/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-28	10/22/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Marketing		02/25/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tank Farm		09/20/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Area		12/18/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-29	10/22/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		02/25/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/20/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/18/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-30	10/23/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		02/27/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/20/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/15/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-31	10/22/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		02/25/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/19/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/18/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-32	10/23/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		02/27/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/15/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-33	10/24/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		02/28/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-34	10/29/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		02/05/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		02/28/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/16/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-35	10/29/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		02/06/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/16/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-36	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/18/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-37	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/17/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	Selected Screening Levels		0.002	0.069	0.243	NA	0.415	0.448	0.317	0.462	0.462	2.29	0.018	98.7	98.7	NA	2.23	NA	0.0221	0.2	40	0.158

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	1,2,4-Trichloro-benzene (ug/L)	1,2-Dichloro-benzene (ug/L)	1,3-Dichloro-benzene (ug/L)	1,4-Dichloro-benzene (ug/L)	1,4-Dioxane (ug/L)	1-Methylnaphthalene (ug/L)	2,4,5-Trichlorophenol (ug/L)	2,4,6-Trichlorophenol (ug/L)	2,4-Dichlorophenol (ug/L)	2,4-Dimethylphenol (ug/L)
Marketing Tank Farm Area	MKTF-38	4Q2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/05/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	1.1	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/19/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	1.2	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-39	11/05/19	ND(5)	ND(5)	ND(5)	ND(5)	**11**	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
		02/05/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	**19**	**87**	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		09/19/20	ND(5)	ND(5)	ND(5)	ND(5)	**13**	**160**	ND(5)	ND(5)	ND(5)	ND(5)
		12/16/20	ND(11.3)	ND(11.3)	ND(11.3)	ND(11.3)	--	--	ND(11.3)	ND(11.3)	ND(11.3)	ND(11.3)
	MKTF-40	10/22/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	**8.7**	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/28/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	**8.2**	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/19/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	**10**	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/17/20	ND(11.3)	ND(11.3)	ND(11.3)	ND(11.3)	--	--	ND(11.3)	ND(11.3)	ND(11.3) UJ	ND(11.3)
	MKTF-41	10/23/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	4	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/27/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	3.5	1.9	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/21/20	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	3	1.9	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/15/20	ND(10.9)	ND(10.9)	ND(10.9)	ND(10.9)	--	--	ND(10.9)	ND(10.9)	ND(10.9)	ND(10.9)
	MKTF-42	10/23/19	ND(5)	ND(5)	ND(5)	ND(5)	*ND(10)*	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
		02/27/20	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	**81**	ND(50)	*ND(50)*	*ND(50)*	ND(50)
		09/21/20	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	**4.7**	**27 J**	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)
		12/16/20	ND(55.1)	ND(55.1)	ND(55.1)	ND(55.1)	--	--	ND(55.1)	*ND(55.1)*	*ND(55.1)*	ND(55.1)
	MKTF-43	10/24/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/27/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/21/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	0.26J/ND(0.51)U*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/15/20	ND(11.4) R	ND(11.4) R	ND(11.4) R	ND(11.4) R	--	--	ND(11.4) R	ND(11.4) R	ND(11.4) R	ND(11.4) R
	MKTF-44	10/24/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/05/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(1)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		09/21/20	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/23/20	ND(12.2) UJ	ND(12.2)	ND(12.2)	ND(12.2)	--	--	ND(12.2) UJ	*ND(12.2) UJ*	ND(12.2) UJ	ND(12.2)
	MKTF-45	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-46	10/28/2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/06/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	1.5	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/17/20	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	1.7 J	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ
		12/16/20	ND(9.68)	ND(9.68)	ND(9.68)	ND(9.68)	--	--	ND(9.68)	ND(9.68)	ND(9.68)	ND(9.68)
	MKTF-47	03/06/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	2.4	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-48	2Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-49	03/05/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(5)*	5.5	ND(2.5)	ND(2.5)	ND(2.5)	24
		09/20/20	ND(5)	ND(5)	ND(5)	ND(5)	1.8 J	5.2	ND(5)	ND(5)	ND(5)	12
		12/23/20	ND(10.6) UJ	ND(10.6)	ND(10.6)	ND(10.6)	--	--	ND(10.6) UJ	ND(10.6) UJ	ND(10.6) UJ	19.2
	MKTF-50	03/05/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(5)*	**45 J**	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	ND(11.6)	ND(11.6)	ND(11.6)	ND(11.6)	--	--	ND(11.6)	ND(11.6)	ND(11.6)	ND(11.6)
Wastewater Treatment	KA-3	10/21/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	2.2	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/04/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(1000)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		09/22/20	ND(0.56)	ND(0.56)	ND(0.56)	ND(0.56)	2.8	**24**	ND(0.56)	ND(0.56)	ND(0.56)	ND(0.56)
		12/17/20	ND(11)	ND(11)	ND(11)	ND(11)	--	--	ND(11)	ND(11)	ND(11) UJ	ND(11)
	NAPIS-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	NAPIS-2	10/21/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	2.3	**23**	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/04/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	2.81 J	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		09/22/20	ND(0.67)	ND(0.67)	ND(0.67)	ND(0.67)	4.2	**19**	ND(0.67)	ND(0.67)	ND(0.67)	ND(0.67)
		12/17/20	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	NAPIS-3	10/21/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/04/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	0.75 J	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/22/20	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	1.7	0.11 J	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/17/20	ND(11.2)	ND(11.2)	ND(11.2)	ND(11.2)	--	--	ND(11.2)	ND(11.2)	ND(11.2) UJ	ND(11.2)
	OAPIS-1	10/21/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	3.5	**58**	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/04/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	3.88 J	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		09/22/20	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	2.4	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)
		12/17/20	ND(10.6)	ND(10.6)	ND(10.6)	ND(10.6)	--	--	ND(10.6)	ND(10.6)	ND(10.6) UJ	ND(10.6)
	STP1-NW	10/22/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/04/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		3Q2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		12/23/20	ND(13.3) UJ	ND(13.3)	ND(13.3)	ND(13.3)	--	--	ND(13.3) UJ	*ND(13.3) UJ*	ND(13.3) UJ	ND(13.3)
	STP1-SW	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
	Oil Sump LDU	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	GWM-2	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	GWM-3	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-59	10/15/19	ND(10)	ND(10)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(20)	ND(10)
		03/03/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	**6.2**	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/19/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	**8.8**	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		12/23/20	ND(11.6) UJ	ND(11.6)	ND(11.6)	ND(11.6)	--	--	ND(11.6) UJ	ND(11.6) UJ	ND(11.6) UJ	ND(11.6)
	OW-60	10/15/19	ND(10)	ND(10)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(20)	ND(10)
		03/03/20	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		09/21/20	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	0.37 J	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/11/20	ND(9.88)	ND(9.88)	ND(9.88)	ND(9.88)	--	--	ND(9.88)	ND(9.88)	ND(9.88)	ND(9.88)
	Selected Screening Levels		70	600	NA	75	4.59	11.38	1,166	11.9	45.3	354

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	2,4-Dinitrophenol (ug/L)	2,4-Dinitrotoluene (ug/L)	2,6-Dinitrotoluene (ug/L)	2-Chloronaphthalene (ug/L)	2-Chlorophenol (ug/L)	2-Methylnaphthalene (ug/L)	2-Methylphenol (ug/L)	2-Nitroaniline (ug/L)	2-Nitrophenol (ug/L)	3,3'-Dichlorobenzidine (ug/L)
Marketing Tank Farm Area	MKTF-38	4Q2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/05/20	ND(0.5)	ND(0.2)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	120	ND(0.5)	ND(0.5)	ND(0.5)
		09/19/20	ND(0.51)	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-39	11/05/19	ND(5)	ND(2)	*ND(5)*	ND(5)	ND(5)	10	ND(5)	ND(5)	ND(5)	*ND(5)*
		02/05/20	ND(2.5)	*ND(2.5)*	*ND(1)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*
		09/19/20	ND(5)	*ND(5)*	*ND(2)*	ND(5)	ND(5)	20	ND(5)	ND(5)	ND(5)	*ND(5)*
		12/16/20	ND(33.9) UJ	*ND(11.3)*	*ND(11.3)*	ND(11.3) UJ	ND(11.3)	--	ND(11.3)	ND(11.3)	ND(11.3)	*ND(11.3)*
	MKTF-40	10/22/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/28/20	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/19/20	ND(0.51)	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/17/20	ND(33.8)	*ND(11.3) UJ*	*ND(11.3)*	ND(11.3)	ND(11.3)	--	ND(11.3)	ND(11.3)	ND(11.3) UJ	*ND(11.3)*
	MKTF-41	10/23/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/27/20	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	2.1	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/21/20	ND(0.52)	ND(0.52)	ND(0.21)	ND(0.52)	ND(0.52)	2.1	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/15/20	ND(32.6)	*ND(10.9)*	*ND(10.9)*	ND(10.9) UJ	ND(10.9)	--	ND(10.9)	ND(10.9)	ND(10.9)	*ND(10.9)*
	MKTF-42	10/23/19	ND(5)	*ND(5)*	*ND(2)*	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	*ND(5)*
		02/27/20	*ND(50)*	*ND(50)*	*ND(20)*	ND(50)	ND(50)	**73**	ND(50)	ND(50)	ND(50)	*ND(50)*
		09/21/20	ND(2.1)	ND(2.1)	*ND(0.82)*	ND(2.1)	ND(2.1)	22 J	ND(2.1)	ND(2.1)	ND(2.1)	*ND(2.1)*
		12/16/20	*ND(165) UJ*	*ND(55.1)*	*ND(55.1)*	ND(55.1) UJ	ND(55.1)	--	ND(55.1)	ND(55.1)	ND(55.1)	*ND(55.1)*
	MKTF-43	10/24/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/27/20	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/21/20	ND(0.51)	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/15/20	ND(34.2) R	*ND(11.4) R*	*ND(11.4) R*	ND(11.4) R	ND(11.4) R	--	ND(11.4) R	ND(11.4) R	ND(11.4) R	*ND(11.4) R*
	MKTF-44	10/24/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/05/20	ND(2.5)	*ND(2.5)*	*ND(1)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*
		09/21/20	ND(0.52)	ND(0.52)	ND(0.21)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/23/20	ND(36.5)	*ND(12.2) UJ*	*ND(12.2) UJ*	ND(12.2) UJ	ND(12.2)	--	ND(12.2)	ND(12.2)	ND(12.2) UJ	*ND(12.2)*
	MKTF-45	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-46	10/28/2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/06/20	ND(0.5)	ND(0.2)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/17/20	ND(0.51) UJ	ND(0.51) UJ	ND(0.21) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ
		12/16/20	ND(29) UJ	*ND(9.68)*	*ND(9.68)*	ND(9.68) UJ	ND(9.68)	--	ND(9.68)	ND(9.68)	ND(9.68)	*ND(9.68)*
	MKTF-47	03/06/20	ND(0.5)	ND(0.2)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-48	2Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-49	03/05/20	ND(2.5)	*ND(2.5)*	*ND(1)*	ND(2.5)	ND(2.5)	7	21	ND(2.5)	ND(2.5)	*ND(2.5)*
		09/20/20	ND(5)	*ND(5)*	*ND(2)*	ND(5)	ND(5)	6.2	ND(5)	ND(5)	ND(5)	*ND(5)*
		12/23/20	ND(31.7)	*ND(10.6) UJ*	*ND(10.6) UJ*	ND(10.6) UJ	ND(10.6)	--	25.1	ND(10.6)	ND(10.6) UJ	*ND(10.6)*
	MKTF-50	03/05/20	ND(2.5)	*ND(2.5)*	*ND(1)*	ND(2.5)	ND(2.5)	**51 J**	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	ND(34.9) UJ	*ND(11.6)*	*ND(11.6)*	ND(11.6) UJ	ND(11.6)	--	ND(11.6)	ND(11.6)	ND(11.6)	*ND(11.6)*
Wastewater Treatment	KA-3	10/21/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	1	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/04/20	ND(2.5)	*ND(2.5)*	*ND(1)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*
		09/22/20	ND(0.56) UJ	ND(0.56)	ND(0.22)	ND(0.56)	ND(0.56)	10	ND(0.56)	ND(0.56)	ND(0.56)	ND(0.56)
		12/17/20	ND(32.9)	*ND(11) UJ*	*ND(11)*	ND(11)	ND(11)	--	ND(11)	ND(11)	ND(11) UJ	*ND(11)*
	NAPIS-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	NAPIS-2	10/21/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	3.8	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/04/20	ND(2.5)	*ND(2.5)*	*ND(1)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*
		09/22/20	ND(0.67) UJ	ND(0.67)	ND(0.27)	ND(0.67)	ND(0.67)	2	ND(0.67)	ND(0.67)	ND(0.67)	ND(0.67)
		12/17/20	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	NAPIS-3	10/21/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/04/20	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/22/20	ND(0.52) UJ	ND(0.52)	ND(0.21)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/17/20	ND(33.7)	*ND(11.2) UJ*	*ND(11.2)*	ND(11.2)	ND(11.2)	--	ND(11.2)	ND(11.2)	ND(11.2) UJ	*ND(11.2)*
	OAPIS-1	10/21/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/04/20	ND(2.5)	*ND(2.5)*	*ND(1)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*
		09/22/20	ND(2.1) UJ	ND(2.1)	*ND(0.82)*	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	*ND(2.1)*
		12/17/20	ND(31.8)	*ND(10.6) UJ*	*ND(10.6)*	ND(10.6)	ND(10.6)	--	ND(10.6)	ND(10.6)	ND(10.6) UJ	*ND(10.6)*
	STP1-NW	10/22/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(3)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/04/20	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		3Q2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		12/23/20	*ND(40)*	*ND(13.3) UJ*	*ND(13.3) UJ*	ND(13.3) UJ	ND(13.3)	--	ND(13.3)	ND(13.3)	ND(13.3) UJ	*ND(13.3)*
	STP1-SW	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
	Oil Sump LDU	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	GWM-2	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	GWM-3	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-59	10/15/19	ND(20)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*
		03/03/20	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/19/20	ND(2.5)	*ND(2.5)*	*ND(1)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*
		12/23/20	ND(34.7)	*ND(11.6) UJ*	*ND(11.6) UJ*	ND(11.6) UJ	ND(11.6)	--	ND(11.6)	ND(11.6)	ND(11.6) UJ	*ND(11.6)*
	OW-60	10/15/19	ND(20)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*
		03/03/20	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		09/21/20	ND(0.52)	ND(0.52)	ND(0.21)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/11/20	ND(29.6)	*ND(9.88)*	*ND(9.88)*	ND(9.88)	ND(9.88)	--	ND(9.88)	ND(9.88)	ND(9.88)	*ND(9.88)*
	Selected Screening Levels		38.7	2.38	0.485	733	91	35.1	NA	NA	NA	1.25

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	3,4-Methylphenol (ug/L)	3-Nitroaniline (ug/L)	2-Methyl-4,6-dinitrophenol (ug/L)	4-Bromophenylphenylether (ug/L)	4-Chloro-3-Methylphenol (ug/L)	4-Chloroaniline (ug/L)	4-Chlorophenyl-phenylether (ug/L)	4-Nitroaniline (ug/L)	4-Nitrophenol (ug/L)	Acenaphthene (ug/L)
Marketing Tank Farm Area	MKTF-38	4Q2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/05/20	8.8	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/19/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-39	11/05/19	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	--	ND(5)	ND(5)	ND(5)	ND(5)
		02/05/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	2.15
		09/19/20	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	3.4 J
		12/16/20	--	ND(11.3)	ND(11.3) UJ	ND(11.3)	ND(11.3)	ND(11.3)	ND(11.3)	ND(11.3)	ND(11.3) UJ	ND(11.3) UJ
	MKTF-40	10/22/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/28/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/19/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/17/20	--	ND(11.3)	ND(11.3)	ND(11.3) UJ	ND(11.3)	ND(11.3)	ND(11.3) UJ	ND(11.3)	ND(11.3)	ND(11.3)
	MKTF-41	10/23/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/27/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/21/20	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/15/20	--	ND(10.9)	ND(10.9) UJ	ND(10.9)	ND(10.9)	ND(10.9)	ND(10.9)	ND(10.9)	ND(10.9) UJ	ND(10.9) UJ
	MKTF-42	10/23/19	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	--	ND(5)	ND(5)	ND(5)	ND(5)
		02/27/20	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	--	ND(50)	ND(50)	ND(50)	ND(50)
		09/21/20	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	0.78 J
		12/16/20	--	ND(55.1)	ND(55.1) UJ	ND(55.1)	ND(55.1)	ND(55.1)	ND(55.1)	ND(55.1)	ND(55.1) UJ	ND(55.1) UJ
	MKTF-43	10/24/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/27/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/21/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/15/20	--	ND(11.4) R	ND(11.4) R	ND(11.4) R	ND(11.4) R	ND(11.4) R	ND(11.4) R	ND(11.4) R	ND(11.4) R	ND(11.4) R
	MKTF-44	10/24/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/05/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		09/21/20	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/23/20	--	ND(12.2)	ND(12.2)	ND(12.2) UJ	ND(12.2)	ND(12.2)	ND(12.2) UJ	ND(12.2)	ND(12.2)	ND(12.2) UJ
	MKTF-45	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-46	10/28/2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/06/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/17/20	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ
		12/16/20	--	ND(9.68)	ND(9.68) UJ	ND(9.68)	ND(9.68)	ND(9.68)	ND(9.68)	ND(9.68)	ND(9.68) UJ	ND(9.68) UJ
	MKTF-47	03/06/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-48	2Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-49	03/05/20	25	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		09/20/20	26	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
		12/23/20	--	ND(10.6)	ND(10.6)	ND(10.6) UJ	ND(10.6)	ND(10.6)	ND(10.6) UJ	ND(10.6)	ND(10.6)	ND(10.6) UJ
Wastewater Treatment	MKTF-50	03/05/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	--	ND(11.6)	ND(11.6) UJ	ND(11.6)	ND(11.6)	ND(11.6)	ND(11.6)	ND(11.6)	ND(11.6) UJ	ND(11.6) UJ
	KA-3	10/21/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	0.78
		03/04/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		09/22/20	ND(0.56)	ND(0.56)	ND(0.56)	ND(0.56)	ND(0.56)	ND(0.56)	ND(0.56)	ND(0.56)	ND(0.56)	2.3
		12/17/20	--	ND(11)	ND(11)	ND(11) UJ	ND(11)	ND(11)	ND(11) UJ	ND(11)	ND(11)	ND(11)
	NAPIS-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	NAPIS-2	10/21/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	6
		03/04/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		09/22/20	ND(0.67)	ND(0.67)	ND(0.67)	ND(0.67)	ND(0.67)	ND(0.67)	ND(0.67)	ND(0.67)	ND(0.67)	4.1
		12/17/20	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	NAPIS-3	10/21/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/04/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/22/20	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	0.37 J
		12/17/20	--	ND(11.2)	ND(11.2)	ND(11.2) UJ	ND(11.2)	ND(11.2)	ND(11.2) UJ	ND(11.2)	ND(11.2)	ND(11.2)
	OAPIS-1	10/21/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	2.5
		03/04/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		09/22/20	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)
		12/17/20	--	ND(10.6)	ND(10.6)	ND(10.6) UJ	ND(10.6)	ND(10.6)	ND(10.6) UJ	ND(10.6)	ND(10.6)	ND(10.6)
	STP1-NW	10/22/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(3)
		03/04/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		3Q2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		12/23/20	--	ND(13.3)	ND(13.3)	ND(13.3) UJ	ND(13.3)	ND(13.3)	ND(13.3) UJ	ND(13.3)	ND(13.3)	ND(13.3) UJ
	STP1-SW	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
	Oil Sump LDU	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	GWM-2	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	GWM-3	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-59	10/15/19	ND(10)	ND(10)	ND(20)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(10)
		03/03/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/19/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		12/23/20	--	ND(11.6)	ND(11.6)	ND(11.6) UJ	ND(11.6) UJ	ND(11.6)	ND(11.6)	ND(11.6)	ND(11.6)	ND(11.6) UJ
	OW-60	10/15/19	ND(10)	ND(10)	ND(20)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(10)
		03/03/20	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		09/21/20	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/11/20	--	ND(9.88)	ND(9.88)	ND(9.88)	ND(9.88)	ND(9.88)	ND(9.88)	ND(9.88)	ND(9.88)	ND(9.88)
	Selected Screening Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	535

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Acenaphthylene (ug/L)	Aniline (ug/L)	Anthracene (ug/L)	Azobenzene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluor-anthene (ug/L)	Benzo(ghi)perylene (ug/L)	Benzo(k)fluor-anthene (ug/L)	Benzoic Acid (ug/L)	Benzyl Alcohol (ug/L)
Marketing Tank Farm Area	MKTF-38	4Q2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/05/20	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/19/20	ND(0.51)	ND(0.51)	ND(0.51)	--	ND(0.51)	ND(0.1)	ND(0.1)	ND(0.51)	ND(0.1)	ND(0.51)	ND(0.51)
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-39	11/05/19	ND(5)	ND(5)	ND(5)	--	ND(1)	*ND(1)*	*ND(1)*	ND(5)	*ND(5)*	ND(10)	ND(5)
		02/05/20	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(2.5)	ND(2.5)	10	ND(2.5)
		09/19/20	1.9 J	ND(5)	1 J	--	1.5	*ND(1)*	*ND(1)*	ND(5)	*ND(5)*	ND(5)	ND(5)
		12/16/20	ND(11.3)	ND(11.3)	ND(11.3)	ND(11.3) UJ	ND(11.3)	*ND(11.3)*	*ND(11.3)*	ND(11.3)	*ND(11.3)*	ND(33.9) R	ND(11.3)
	MKTF-40	10/22/19	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/28/20	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/19/20	ND(0.51)	ND(0.51)	ND(0.51)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/17/20	ND(11.3)	ND(11.3)	ND(11.3)	ND(11.3)	ND(11.3)	*ND(11.3)*	*ND(11.3)*	ND(11.3)	*ND(11.3)*	ND(33.8)	ND(11.3)
	MKTF-41	10/23/19	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/27/20	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/21/20	ND(0.52)	ND(0.52)	ND(0.52)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.52)	ND(0.52)	ND(0.52)	0.74/ND(0.74)U*
		12/15/20	ND(10.9)	ND(10.9)	ND(10.9)	ND(10.9) UJ	ND(10.9)	*ND(10.9)*	*ND(10.9)*	ND(10.9)	*ND(10.9)*	ND(32.6) R	ND(10.9)
	MKTF-42	10/23/19	ND(5)	ND(5)	ND(5)	--	ND(1)	*ND(1)*	*ND(1)*	ND(5)	*ND(5)*	ND(5)	ND(5)
		02/27/20	ND(50)	ND(50)	ND(50)	--	ND(10)	*ND(10)*	*ND(10)*	ND(50)	*ND(50)*	ND(25)	ND(50)
		09/21/20	ND(2.1)	ND(2.1)	ND(2.1)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)
		12/16/20	ND(55.1)	ND(55.1)	ND(55.1)	ND(55.1) UJ	ND(55.1)	*ND(55.1)*	*ND(55.1)*	ND(55.1)	*ND(55.1)*	ND(165) R	ND(55.1)
	MKTF-43	10/24/19	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		02/27/20	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/21/20	ND(0.51)	ND(0.51)	ND(0.51)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.51)	ND(0.51)	ND(0.51)	0.92 JB
		12/15/20	ND(11.4) R	ND(11.4) R	ND(11.4) R	ND(11.4) R	ND(11.4) R	*ND(11.4) R*	*ND(11.4) R*	ND(11.4) R	*ND(11.4) R*	ND(34.2) R	ND(11.4) R
	MKTF-44	10/24/19	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/05/20	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(2.5)	ND(2.5)	ND(0.5)	ND(2.5)
		09/21/20	ND(0.52)	ND(0.52)	ND(0.52)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.52)	ND(0.52)	0.21J/ND(0.52)U*	1.7 JB
		12/23/20	ND(12.2) UJ	ND(12.2) R	ND(12.2)	ND(12.2)	ND(12.2)	*ND(12.2)*	*ND(12.2)*	ND(12.2)	*ND(12.2)*	ND(36.5) UJ	ND(12.2)
	MKTF-45	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-46	10/28/2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/06/20	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/17/20	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	--	ND(0.1) UJ	ND(0.1) UJ	ND(0.1) UJ	ND(0.51) UJ	ND(0.51) UJ	0.8 J	ND(0.51) UJ
		12/16/20	ND(9.68)	ND(9.68)	ND(9.68)	ND(9.68) UJ	ND(9.68)	*ND(9.68)*	*ND(9.68)*	ND(9.68)	*ND(9.68)*	ND(29) R	ND(9.68)
	MKTF-47	03/06/20	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-48	2Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-49	03/05/20	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(2.5)	ND(2.5)	120	ND(2.5)
		09/20/20	ND(5)	ND(5)	ND(5)	--	ND(1)	*ND(1)*	*ND(1)*	ND(5)	*ND(5)*	190	ND(5)
		12/23/20	ND(10.6) UJ	ND(10.6) R	ND(10.6)	ND(10.6)	ND(10.6)	*ND(10.6)*	*ND(10.6)*	ND(10.6)	*ND(10.6)*	163 J	ND(10.6)
	MKTF-50	03/05/20	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	ND(11.6)	ND(11.6)	ND(11.6)	ND(11.6) UJ	ND(11.6)	*ND(11.6)*	*ND(11.6)*	ND(11.6)	*ND(11.6)*	ND(34.9) R	ND(11.6)
Wastewater Treatment	KA-3	10/21/19	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/04/20	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(2.5)	ND(2.5)	4.4	ND(2.5)
		09/22/20	0.45 J	ND(0.56)	0.13 J	--	ND(0.11)	ND(0.11)	ND(0.11)	ND(0.56)	ND(0.56)	ND(0.56)	0.93
		12/17/20	ND(11)	ND(11)	ND(11)	ND(11)	ND(11)	*ND(11)*	*ND(11)*	ND(11)	*ND(11)*	ND(32.9)	ND(11)
	NAPIS-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	NAPIS-2	10/21/19	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/04/20	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(2.5)	ND(2.5)	2.39 J	ND(2.5)
		09/22/20	0.39 J	ND(0.67)	ND(0.67)	--	ND(0.13)	ND(0.13)	ND(0.13)	ND(0.67)	ND(0.67)	ND(0.67)	ND(0.67)
		12/17/20	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	NAPIS-3	10/21/19	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/04/20	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/22/20	ND(0.52)	ND(0.52)	ND(0.52)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/17/20	ND(11.2)	ND(11.2)	ND(11.2)	ND(11.2)	ND(11.2)	*ND(11.2)*	*ND(11.2)*	ND(11.2)	*ND(11.2)*	ND(33.7)	ND(11.2)
	OAPIS-1	10/21/19	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/04/20	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(2.5)	ND(2.5)	5.2	ND(2.5)
		09/22/20	ND(2.1)	ND(2.1)	ND(2.1)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)
		12/17/20	ND(10.6)	ND(10.6)	ND(10.6)	ND(10.6)	ND(10.6)	*ND(10.6)*	*ND(10.6)*	ND(10.6)	*ND(10.6)*	ND(31.8)	ND(10.6)
	STP1-NW	10/22/19	ND(0.5)	ND(0.5)	ND(0.6)	--	ND(0.07)	ND(0.07)	ND(0.1)	ND(0.125)	ND(0.07)	ND(0.5)	ND(0.5)
		03/04/20	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		3Q2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		12/23/20	ND(13.3) UJ	ND(13.3) R	ND(13.3)	ND(13.3)	ND(13.3)	*ND(13.3)*	*ND(13.3)*	ND(13.3)	*ND(13.3)*	ND(40) UJ	ND(13.3)
	STP1-SW	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
	Oil Sump LDU	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	GWM-2	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	GWM-3	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-59	10/15/19	ND(10)	ND(10)	ND(10)	--	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(20)	ND(10)
		03/03/20	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/19/20	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(2.5)	ND(2.5)	4.8	1.8 J
		12/23/20	ND(11.6) UJ	ND(11.6) R	ND(11.6)	ND(11.6)	ND(11.6)	*ND(11.6)*	*ND(11.6)*	ND(11.6)	*ND(11.6)*	ND(34.7) UJ	ND(11.6)
	OW-60	10/15/19	ND(10)	ND(10)	ND(10)	--	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(20)	ND(10)
		03/03/20	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		09/21/20	ND(0.52)	ND(0.52)	ND(0.52)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/11/20	ND(9.88)	ND(9.88)	ND(9.88)	ND(9.88)	ND(9.88)	*ND(9.88)*	*ND(9.88)*	ND(9.88)	*ND(9.88)*	ND(29.6)	ND(9.88)
	Selected Screening Levels		NA	NA	1,721	NA	NA	0.2	0.34	NA	3.43	NA	NA

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Bis(2chloro ethoxy)methane (ug/L)	Bis(2-chloro ethyl)ether (ug/L)	Bis(2chloro isopropyl)ether (ug/L)	Bis(2-ethyl hexyl)phthalate (ug/L)	Benzyl Butyl Phthalate (ug/L)	Carbazole (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Dibenzofuran (ug/L)	Diethylphthalate (ug/L)	Dimethyl Phthalate (ug/L)
Marketing Tank Farm Area	MKTF-38	4Q2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/05/20	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		09/19/20	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.03)	ND(0.51)	ND(0.51)	ND(0.51)
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-39	11/05/19	ND(5)	--	ND(5)	ND(5)	ND(5)	14	ND(5)	*ND(0.25)*	ND(5)	ND(5)	ND(5)
		02/05/20	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	16	ND(2.5)	*ND(0.12)*	5.4	ND(2.5)	ND(2.5)
		09/19/20	ND(5)	*ND(5)*	ND(5)	2.9 J	ND(5)	ND(5)	1.2 J	*ND(0.3)*	ND(5)	ND(5)	ND(5)
		12/16/20	ND(11.3) UJ	*ND(11.3)*	*ND(11.3)*	ND(11.3)	ND(11.3)	24.6 J	ND(11.3)	*ND(11.3)*	ND(11.3)	ND(11.3)	ND(11.3)
	MKTF-40	10/22/19	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		02/28/20	ND(0.5)	--	ND(0.5)	0.39 J	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		09/19/20	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.03)	ND(0.51)	ND(0.51)	ND(0.51)
		12/17/20	ND(11.3)	*ND(11.3)*	*ND(11.3)*	ND(11.3)	ND(11.3)	ND(11.3)	ND(11.3)	*ND(11.3)*	ND(11.3)	ND(11.3)	ND(11.3)
	MKTF-41	10/23/19	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		02/27/20	ND(0.5)	--	ND(0.5)	0.75	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		09/21/20	ND(0.52)	*ND(0.52)*	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.031)	ND(0.52)	ND(0.52)	ND(0.52)
		12/15/20	ND(10.9) UJ	*ND(10.9)*	*ND(10.9)*	ND(10.9)	ND(10.9)	ND(10.9) UJ	ND(10.9)	*ND(10.9)*	ND(10.9)	ND(10.9)	ND(10.9)
	MKTF-42	10/23/19	ND(5)	--	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	*ND(0.25)*	ND(5)	ND(5)	ND(5)
		02/27/20	ND(50)	--	*ND(50)*	21 J	ND(50)	ND(50)	*ND(50)*	*ND(1.2)*	ND(50)	ND(50)	ND(50)
		09/21/20	ND(2.1)	*ND(2.1)*	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(0.031)	ND(2.1)	ND(2.1)	ND(2.1)
		12/16/20	ND(55.1) UJ	*ND(55.1)*	*ND(55.1)*	ND(55.1)	ND(55.1)	ND(55.1) UJ	*ND(55.1)*	*ND(55.1)*	ND(55.1)	ND(55.1)	ND(55.1)
	MKTF-43	10/24/19	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		02/27/20	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		09/21/20	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.031)	ND(0.51)	ND(0.51)	ND(0.51)
		12/15/20	ND(11.4) R	*ND(11.4) R*	*ND(11.4) R*	ND(11.4) R	ND(11.4) R	ND(11.4) R	ND(11.4) R	*ND(11.4) R*	ND(11.4) R	ND(11.4) R	ND(11.4) R
	MKTF-44	10/24/19	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		03/05/20	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(0.12)*	ND(2.5)	ND(2.5)	ND(2.5)
		09/21/20	ND(0.52)	*ND(0.52)*	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.031)	ND(0.52)	ND(0.52)	ND(0.52)
		12/23/20	ND(12.2)	*ND(12.2)*	*ND(12.2)*	ND(12.2)	ND(12.2)	ND(12.2)	ND(12.2)	*ND(12.2)*	ND(12.2) UJ	ND(12.2)	ND(12.2) UJ
	MKTF-45	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-46	10/28/2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/06/20	ND(0.5)	--	ND(0.5)	0.33 J	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		09/17/20	ND(0.51) UJ	*ND(0.51) UJ*	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.031) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ
		12/16/20	ND(9.68) UJ	*ND(9.68)*	ND(9.68)	ND(9.68)	ND(9.68)	ND(9.68) UJ	ND(9.68)	*ND(9.68)*	ND(9.68)	ND(9.68)	ND(9.68)
	MKTF-47	03/06/20	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-48	2Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-49	03/05/20	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(0.12)*	ND(2.5)	ND(2.5)	ND(2.5)
		09/20/20	ND(5)	*ND(5)*	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	*ND(0.3)*	ND(5)	ND(5)	ND(5)
		12/23/20	ND(10.6)	*ND(10.6)*	*ND(10.6)*	ND(10.6)	ND(10.6)	ND(10.6)	ND(10.6)	*ND(10.6)*	ND(10.6) UJ	ND(10.6)	ND(10.6) UJ
	MKTF-50	03/05/20	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	1.78 J	ND(2.5)	*ND(0.12)*	ND(2.5)	ND(2.5)	ND(2.5)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	ND(11.6) UJ	*ND(11.6)*	*ND(11.6)*	ND(11.6)	ND(11.6)	ND(11.6) UJ	ND(11.6)	*ND(11.6)*	ND(11.6)	ND(11.6)	ND(11.6)
Wastewater Treatment	KA-3	10/21/19	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		03/04/20	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(0.12)*	ND(2.5)	ND(2.5)	ND(2.5)
		09/22/20	ND(0.56)	*ND(0.56)*	ND(0.56)	ND(0.56)	ND(0.56)	0.34 J	ND(0.56)	ND(0.034)	ND(0.56)	ND(0.56)	ND(0.56)
		12/17/20	ND(11)	*ND(11)*	*ND(11)*	ND(11)	ND(11)	ND(11)	ND(11)	*ND(11)*	ND(11)	ND(11)	ND(11)
	NAPIS-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	NAPIS-2	10/21/19	ND(0.5)	--	ND(0.5)	0.73	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		03/04/20	ND(2.5)	--	ND(2.5)	5.2	ND(2.5)	ND(2.5)	ND(2.5)	*ND(0.12)*	ND(2.5)	ND(2.5)	ND(2.5)
		09/22/20	ND(0.67)	*ND(0.67)*	ND(0.67)	1	ND(0.67)	ND(0.67)	ND(0.67)	*ND(0.04)*	ND(0.67)	ND(0.67)	ND(0.67)
		12/17/20	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	NAPIS-3	10/21/19	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		03/04/20	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		09/22/20	ND(0.52)	*ND(0.52)*	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.031)	0.2 J	ND(0.52)	ND(0.52)
		12/17/20	ND(11.2)	*ND(11.2)*	*ND(11.2)*	ND(11.2)	ND(11.2)	ND(11.2)	ND(11.2)	*ND(11.2)*	ND(11.2)	ND(11.2)	ND(11.2)
	OAPIS-1	10/21/19	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		03/04/20	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(0.12)*	ND(2.5)	ND(2.5)	ND(2.5)
		09/22/20	ND(2.1)	*ND(2.1)*	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(0.031)	ND(2.1)	ND(2.1)	ND(2.1)
		12/17/20	ND(10.6)	*ND(10.6)*	*ND(10.6)*	ND(10.6)	ND(10.6)	ND(10.6)	ND(10.6)	*ND(10.6)*	ND(10.6)	ND(10.6)	ND(10.6)
	STP1-NW	10/22/19	ND(0.5)	--	ND(0.5)	0.73	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		03/04/20	ND(0.5)	--	ND(0.5)	0.58	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		3Q2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		12/23/20	ND(13.3)	*ND(13.3)*	*ND(13.3)*	ND(13.3)	ND(13.3)	ND(13.3)	ND(13.3)	*ND(13.3)*	ND(13.3) UJ	ND(13.3)	ND(13.3) UJ
	STP1-SW	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
	Oil Sump LDU	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	GWM-2	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	GWM-3	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-59	10/15/19	ND(10)	--	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		03/03/20	ND(0.5)	--	ND(0.5)	0.52	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		09/19/20	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(0.15)*	ND(2.5)	ND(2.5)	ND(2.5)
		12/23/20	ND(11.6)	*ND(11.6)*	*ND(11.6)*	ND(11.6)	ND(11.6)	ND(11.6)	ND(11.6)	*ND(11.6)*	ND(11.6) UJ	ND(11.6)	ND(11.6) UJ
	OW-60	10/15/19	ND(10)	--	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		03/03/20	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		09/21/20	ND(0.52)	*ND(0.52)*	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.031)	ND(0.52)	ND(0.52)	ND(0.52)
		12/11/20	ND(9.88)	*ND(9.88)*	*ND(9.88)*	ND(9.88)	ND(9.88)	ND(9.88)	ND(9.88)	*ND(9.88)*	ND(9.88)	ND(9.88)	ND(9.88)
	Selected Screening Levels		NA	0.137	9.81	55.64	NA	NA	34.3	0.034	NA	14,801	612

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Di-n-butyl-phthalate (ug/L)	Di-n-octyl-phthalate (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Hexachloro-benzene (ug/L)	Hexachloro-butadiene (ug/L)	Hexachloro-cyclopentadiene (ug/L)	Hexachloro-ethane (ug/L)	Indeno-(1,2,3-cd) pyrene (ug/L)	Isophorone (ug/L)	Naphthalene (ug/L)	Nitrobenzene (ug/L)	N-Nitroso-dimethylamine (ug/L)
Marketing Tank Farm Area	MKTF-38	4Q2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/05/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		09/19/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-39	11/05/19	ND(5)	ND(5)	ND(5)	27	*ND(5)*	ND(5)	*ND(5)*	*ND(5)*	ND(2)	ND(5)	20	*ND(5)*	--
		02/05/20	ND(2.5)	ND(2.5)	ND(2.5)	10	*ND(2.5)*	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(1)	ND(2.5)	23	*ND(2.5)*	--
		09/19/20	ND(5)	ND(5)	ND(5)	22	*ND(5)*	ND(5)	*ND(5)*	*ND(5)*	ND(2)	ND(5)	**32**	*ND(5)*	*ND(5)*
		12/16/20	ND(11.3)	ND(11.3)	ND(11.3)	16.7	*ND(11.3)*	--	*ND(22.6) UJ*	*ND(11.3)*	ND(11.3)	ND(11.3) UJ	**31.5 J**	*ND(11.3) UJ*	*ND(11.3)*
	MKTF-40	10/22/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.8)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		02/28/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		09/19/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*
		12/17/20	ND(11.3)	ND(11.3)	ND(11.3)	ND(11.3)	*ND(11.3) UJ*	--	*ND(22.5)*	*ND(11.3)*	ND(11.3)	ND(11.3)	ND(11.3)	*ND(11.3)*	*ND(11.3)*
	MKTF-41	10/23/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.8)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		02/27/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	1.6	ND(0.5)	--
		09/21/20	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	*ND(0.52)*	ND(0.52)	*ND(0.52)*	ND(0.52)	ND(0.21)	ND(0.52)	1.6	ND(0.52)	*ND(0.52)*
		12/15/20	ND(10.9)	ND(10.9) UJ	ND(10.9)	ND(10.9)	*ND(10.9)*	--	*ND(21.8) UJ*	*ND(10.9)*	ND(10.9)	ND(10.9) UJ	ND(10.9)	*ND(10.9) UJ*	*ND(10.9)*
	MKTF-42	10/23/19	ND(5)	ND(5)	ND(5)	ND(5)	*ND(5)*	ND(5)	*ND(5)*	*ND(5)*	ND(2)	ND(5)	ND(5)	*ND(5)*	--
		02/27/20	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	ND(50)	*ND(50)*	*ND(50)*	ND(20)	ND(50)	**150 J**	*ND(50)*	--
		09/21/20	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	*ND(2.1)*	ND(2.1)	*ND(2.1)*	ND(2.1)	ND(0.21)	ND(2.1)	**46 J**	*ND(2.1)*	*ND(2.1)*
		12/16/20	ND(55.1)	ND(55.1)	ND(55.1)	ND(55.1)	*ND(55.1)*	--	*ND(110) UJ*	*ND(55.1)*	ND(55.1)	ND(55.1) UJ	*ND(55.1)*	*ND(55.1) UJ*	*ND(55.1)*
	MKTF-43	10/24/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		02/27/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		09/21/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*
		12/15/20	ND(11.4) R	ND(11.4) R	ND(11.4) R	ND(11.4) R	*ND(11.4) R*	--	*ND(22.8) R*	*ND(11.4) R*	ND(11.4) R	ND(11.4) R	ND(11.4) R	*ND(11.4) R*	*ND(11.4) R*
	MKTF-44	10/24/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		03/05/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(1)	ND(2.5)	ND(2.5)	*ND(2.5)*	--
		09/21/20	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	*ND(0.52)*	ND(0.52)	*ND(0.52)*	ND(0.52)	ND(0.21)	ND(0.52)	ND(0.52)	ND(0.52)	*ND(0.52)*
		12/23/20	ND(12.2)	ND(12.2)	ND(12.2) UJ	ND(12.2) UJ	*ND(12.2) UJ*	--	*ND(24.4) UJ*	*ND(12.2)*	ND(12.2)	ND(12.2)	ND(12.2)	*ND(12.2)*	*ND(12.2)*
	MKTF-45	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-46	10/28/2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/06/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		09/17/20	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	*ND(0.51) UJ*	ND(0.51) UJ	*ND(0.51) UJ*	ND(0.51) UJ	ND(0.21) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	*ND(0.51) UJ*
		12/16/20	ND(9.68)	ND(9.68)	ND(9.68)	ND(9.68)	*ND(9.68)*	--	*ND(19.4) UJ*	*ND(9.68)*	ND(9.68)	ND(9.68) UJ	ND(9.68)	*ND(9.68) UJ*	*ND(9.68)*
	MKTF-47	03/06/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-48	2Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-49	03/05/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(1)	ND(2.5)	**42**	*ND(2.5)*	--
		09/20/20	ND(5)	ND(5)	ND(5)	ND(5)	*ND(5)*	ND(5)	*ND(5)*	*ND(5)*	ND(2)	ND(5)	**36**	*ND(5)*	*ND(5)*
		12/23/20	ND(10.6)	ND(10.6)	ND(10.6) UJ	ND(10.6) UJ	*ND(10.6) UJ*	--	*ND(21.1) UJ*	*ND(10.6)*	ND(10.6)	ND(10.6)	**44**	*ND(10.6)*	*ND(10.6)*
	MKTF-50	03/05/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(1)	ND(2.5)	**120**	*ND(2.5)*	--
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	ND(11.6)	ND(11.6)	ND(11.6)	ND(11.6)	*ND(11.6)*	--	*ND(23.2) UJ*	*ND(11.6)*	ND(11.6)	ND(11.6) UJ	**120**	*ND(11.6) UJ*	*ND(11.6)*
Wastewater Treatment	KA-3	10/21/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	2	ND(0.5)	--
		03/04/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(1)	ND(2.5)	ND(2.5)	*ND(2.5)*	--
		09/22/20	ND(0.56)	ND(0.56)	ND(0.56)	2.5	*ND(0.56)*	ND(0.56)	*ND(0.56)*	ND(0.56)	ND(0.22)	ND(0.56)	13	ND(0.56)	*ND(0.56)*
		12/17/20	ND(11)	ND(11)	ND(11)	ND(11)	*ND(11) UJ*	--	*ND(21.9)*	*ND(11)*	ND(11)	ND(11)	ND(11)	*ND(11)*	*ND(11)*
	NAPIS-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	NAPIS-2	10/21/19	ND(0.5)	ND(0.5)	ND(0.5)	2.6	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	18	ND(0.5)	--
		03/04/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(1)	ND(2.5)	ND(2.5)	*ND(2.5)*	--
		09/22/20	ND(0.67)	ND(0.67)	ND(0.67)	1.5	*ND(0.67)*	ND(0.67)	*ND(0.67)*	ND(0.67)	ND(0.27)	ND(0.67)	13	ND(0.67)	*ND(0.67)*
		12/17/20	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	NAPIS-3	10/21/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		03/04/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		09/22/20	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	*ND(0.52)*	ND(0.52)	*ND(0.52)*	ND(0.52)	ND(0.21)	ND(0.52)	0.21 J	ND(0.52)	*ND(0.52)*
		12/17/20	ND(11.2)	ND(11.2)	ND(11.2)	ND(11.2)	*ND(11.2) UJ*	--	*ND(22.5)*	*ND(11.2)*	ND(11.2)	ND(11.2)	ND(11.2)	*ND(11.2)*	*ND(11.2)*
	OAPIS-1	10/21/19	ND(0.5)	ND(0.5)	ND(0.5)	2.4	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	3.3	ND(0.5)	--
		03/04/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(1)	ND(2.5)	ND(2.5)	*ND(2.5)*	--
		09/22/20	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	*ND(2.1)*	ND(2.1)	*ND(2.1)*	ND(2.1)	ND(0.21)	ND(2.1)	ND(2.1)	*ND(2.1)*	*ND(2.1)*
		12/17/20	ND(10.6)	ND(10.6)	ND(10.6)	ND(10.6)	*ND(10.6) UJ*	--	*ND(21.2)*	*ND(10.6)*	ND(10.6)	ND(10.6)	ND(10.6)	*ND(10.6)*	*ND(10.6)*
	STP1-NW	10/22/19	ND(0.5)	ND(0.5)	ND(0.4)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.25)	ND(0.5)	ND(3)	ND(0.5)	--
		03/04/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		3Q2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		12/23/20	ND(13.3)	ND(13.3)	ND(13.3) UJ	ND(13.3) UJ	*ND(13.3) UJ*	--	*ND(26.7) UJ*	*ND(13.3)*	ND(13.3)	ND(13.3)	ND(13.3)	*ND(13.3)*	*ND(13.3)*
	STP1-SW	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
	Oil Sump LDU	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	GWM-2	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	GWM-3	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-59	10/15/19	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*	--
		03/03/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		09/19/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(1)	ND(2.5)	ND(2.5)	*ND(2.5)*	*ND(2.5)*
		12/23/20	ND(11.6)	ND(11.6)	ND(11.6) UJ	ND(11.6) UJ	*ND(11.6) UJ*	--	*ND(23.1) UJ*	*ND(11.6)*	ND(11.6)	ND(11.6)	ND(11.6)	*ND(11.6)*	*ND(11.6)*
	OW-60	10/15/19	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*	--
		03/03/20	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		09/21/20	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	*ND(0.52)*	ND(0.52)	*ND(0.52)*	ND(0.52)	ND(0.21)	ND(0.52)	ND(0.52)	ND(0.52)	*ND(0.52)*
		12/11/20	ND(9.88)	ND(9.88)	ND(9.88)	ND(9.88)	*ND(9.88)*	--	*ND(19.8) R*	*ND(9.88)*	ND(9.88)	ND(9.88)	ND(9.88)	*ND(9.88)*	*ND(9.88)*
	Selected Screening Levels		885	NA	802	288	0.0976	NA	0.41	3.28	NA	781	30	1.4	0.0049

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	N-Nitrosodi-n-propylamine (ug/L)	N-Nitrosodiphenyl-amine (ug/L)	Pentachloro-phenol (ug/L)	Phenanthrene (ug/L)	Phenol (ug/L)	Pyrene (ug/L)	Pyridine (ug/L)	Benzidine (ug/L)	2,3,4,6-Tetrachlorophenol (ug/L)	2,3,5,6-Tetrachlorophenol (ug/L)	Dibenz(a,h)acridine (ug/L)	7,12-Dimethyl benz(a)anthracene (ug/L)	1,2-Diphenyl hydrazine (ug/L)	Quinoline (ug/L)	Thiophenol (Benzenethiol) (ug/L)
Marketing Tank Farm Area	MKTF-38	4Q2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/05/20	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		09/19/20	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	--	--	--	--	--
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-39	11/05/19	--	ND(5)	*ND(5)*	37	ND(5)	ND(5)	ND(5)	--	--	--	--	--	--	--	--
		02/05/20	--	ND(2.5)	*ND(2.5)*	8.9	2.01	ND(2.5)	ND(2.5)	--	--	--	--	--	--	--	--
		09/19/20	*ND(5)*	ND(5)	*ND(5)*	38	ND(5)	5.2	ND(5)	*ND(5)*	ND(5)	ND(5)	--	--	--	--	--
		12/16/20	*ND(11.3)*	ND(11.3) UJ	*ND(22.6) UJ*	21.2	ND(11.3) UJ	ND(11.3)	ND(11.3) UJ	--	--	--	--	--	--	--	--
	MKTF-40	10/22/19	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		02/28/20	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		09/19/20	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	--	--	--	--	--
		12/17/20	*ND(11.3)*	ND(11.3)	*ND(22.5)*	ND(11.3)	ND(11.3)	ND(11.3)	ND(11.3)	--	--	--	--	--	--	--	--
	MKTF-41	10/23/19	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		02/27/20	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		09/21/20	*ND(0.52)*	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	*ND(0.52)*	ND(0.52)	ND(0.52)	--	--	--	--	--
		12/15/20	*ND(10.9)*	ND(10.9) UJ	*ND(21.8) UJ*	ND(10.9)	ND(10.9) UJ	ND(10.9)	ND(10.9) UJ	--	--	--	--	--	--	--	--
	MKTF-42	10/23/19	--	ND(5)	*ND(5)*	ND(5)	ND(5)	ND(5)	ND(5)	--	--	--	--	--	--	--	--
		02/27/20	--	ND(50)	*ND(50)*	ND(50)	ND(50)	ND(50)	ND(50)	--	--	--	--	--	--	--	--
		09/21/20	*ND(2.1)*	ND(2.1)	*ND(2.1)*	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	*ND(2.1)*	ND(2.1)	ND(2.1)	--	--	--	--	--
		12/16/20	*ND(55.1)*	ND(55.1) UJ	*ND(110) UJ*	ND(55.1)	ND(55.1) UJ	ND(55.1)	ND(55.1) UJ	--	--	--	--	--	--	--	--
	MKTF-43	10/24/19	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		02/27/20	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		09/21/20	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	--	--	--	--	--
		12/15/20	*ND(11.4) R*	ND(11.4) R	*ND(22.8) R*	ND(11.4) R	ND(11.4) R	ND(11.4) R	ND(11.4) R	--	--	--	--	--	--	--	--
	MKTF-44	10/24/19	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		03/05/20	--	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	--	--	--	--	--	--	--	--
		09/21/20	*ND(0.52)*	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	*ND(0.52)*	ND(0.52)	ND(0.52)	--	--	--	--	--
		12/23/20	*ND(12.2)*	ND(12.2)	*ND(24.4)*	ND(12.2)	ND(12.2)	ND(12.2)	ND(12.2)	--	--	--	--	--	--	--	--
	MKTF-45	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-46	10/28/2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/06/20	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		09/17/20	*ND(0.51) UJ*	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	*ND(0.51) UJ*	ND(0.51) UJ	ND(0.51) UJ	--	--	--	--	--
		12/16/20	*ND(9.68)*	ND(9.68) UJ	*ND(19.4) UJ*	ND(9.68)	ND(9.68) UJ	ND(9.68)	ND(9.68) UJ	--	--	--	--	--	--	--	--
	MKTF-47	03/06/20	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-48	2Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-49	03/05/20	--	ND(2.5)	*ND(2.5)*	ND(2.5)	130	ND(2.5)	ND(2.5)	--	--	--	--	--	--	--	--
		09/20/20	*ND(5)*	ND(5)	*ND(5)*	ND(5)	120	ND(5)	ND(5)	*ND(5)*	ND(5)	ND(5)	--	--	--	--	--
		12/23/20	*ND(10.6)*	ND(10.6)	*ND(21.1)*	ND(10.6)	135	ND(10.6)	ND(10.6)	--	--	--	--	--	--	--	--
	MKTF-50	03/05/20	--	ND(2.5)	*ND(2.5)*	2.6	51 J	ND(2.5)	ND(2.5)	--	--	--	--	--	--	--	--
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	*ND(11.6)*	ND(11.6) UJ	*ND(23.2) UJ*	ND(11.6)	25.8 J	ND(11.6)	ND(11.6) UJ	--	--	--	--	--	--	--	--
Wastewater Treatment	KA-3	10/21/19	--	ND(0.5)	ND(0.5)	ND(0.5)	1.1	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		03/04/20	--	ND(2.5)	*ND(2.5)*	ND(2.5)	22	ND(2.5)	ND(2.5)	--	--	--	--	--	--	--	--
		09/22/20	*ND(0.56)*	ND(0.56)	ND(0.56)	0.7	28	0.15 J	ND(0.56)	*ND(0.56)*	ND(0.56)	ND(0.56)	--	--	--	--	--
		12/17/20	*ND(11)*	ND(11)	*ND(21.9)*	ND(11)	ND(11)	ND(11)	ND(11)	--	--	--	--	--	--	--	--
	NAPIS-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	NAPIS-2	10/21/19	--	ND(0.5)	ND(0.5)	0.7	2.4	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		03/04/20	--	ND(2.5)	*ND(2.5)*	ND(2.5)	65	ND(2.5)	ND(2.5)	--	--	--	--	--	--	--	--
		09/22/20	*ND(0.67)*	ND(0.67)	ND(0.67)	ND(0.67)	40	ND(0.67)	ND(0.67)	*ND(0.67)*	ND(0.67)	ND(0.67)	--	--	--	--	--
		12/17/20	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	NAPIS-3	10/21/19	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		03/04/20	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		09/22/20	*ND(0.52)*	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	0.5 J	*ND(0.52)*	ND(0.52)	ND(0.52)	--	--	--	--	--
		12/17/20	*ND(11.2)*	ND(11.2)	*ND(22.5)*	ND(11.2)	ND(11.2)	ND(11.2)	ND(11.2)	--	--	--	--	--	--	--	--
	OAPIS-1	10/21/19	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		03/04/20	--	ND(2.5)	*ND(2.5)*	ND(2.5)	2.5	ND(2.5)	ND(2.5)	--	--	--	--	--	--	--	--
		09/22/20	*ND(2.1)*	ND(2.1)	*ND(2.1)*	ND(2.1)	3.9	ND(2.1)	ND(2.1)	*ND(2.1)*	ND(2.1)	ND(2.1)	--	--	--	--	--
		12/17/20	*ND(10.6)*	ND(10.6)	*ND(21.2)*	ND(10.6)	ND(10.6)	ND(10.6)	ND(10.6)	--	--	--	--	--	--	--	--
	STP1-NW	10/22/19	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.4)	ND(0.5)	--	--	--	--	--	--	--	--
		03/04/20	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		3Q2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		12/23/20	*ND(13.3)*	ND(13.3)	*ND(26.7)*	ND(13.3)	ND(13.3)	ND(13.3)	ND(13.3)	--	--	--	--	--	--	--	--
	STP1-SW	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
	Oil Sump LDU	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	GWM-2	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	GWM-3	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-59	10/15/19	--	ND(10)	*ND(20)*	ND(10)	ND(10)	ND(10)	ND(10)	--	--	--	--	--	--	--	--
		03/03/20	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		09/19/20	*ND(2.5)*	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(2.5)	--	--	--	--	--
		12/23/20	*ND(11.6)*	ND(11.6)	*ND(23.1)*	ND(11.6)	ND(11.6)	ND(11.6)	ND(11.6)	--	--	--	--	--	--	--	--
	OW-60	10/15/19	--	ND(10)	*ND(20)*	ND(10)	ND(10)	ND(10)	ND(10)	--	--	--	--	--	--	--	--
		03/03/20	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		09/21/20	*ND(0.52)*	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	*ND(0.52)*	ND(0.52)	ND(0.52)	--	--	--	--	--
		12/11/20	*ND(9.88)*	ND(9.88)	*ND(19.8)*	ND(9.88)	ND(9.88)	ND(9.88)	ND(9.88)	--	--	--	--	--	--	--	--
	Selected Screening Levels		0.027	122	1	170	5,761	117	NA	0.0011	NA	NA	NA	NA	0.780	NA	NA

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Aldrin (ug/L)	alpha-BHC (ug/L)	beta-BHC (ug/L)	delta-BHC (ug/L)	Lindane (ug/L)	Chlordane (ug/L)	4,4'-DDD (ug/L)	4,4'-DDE (ug/L)	2,4-DDE (ug/L)	4,4'-DDT (ug/L)	Dieldrin (ug/L)	Endosulfan I (ug/L)	Endosulfan II (ug/L)	Endosulfan Sulfate (ug/L)	Endrin (ug/L)	Endrin Aldehyde (ug/L)	Heptachlor (ug/L)	Heptachlor Epoxide (ug/L)	Methyoxy-chlor (ug/L)	Toxaphene (ug/L)
Marketing Tank Farm Area	MKTF-38	4Q2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/05/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/19/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-39	11/05/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		02/05/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/19/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/16/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-40	10/22/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		02/28/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/19/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/17/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-41	10/23/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		02/27/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/15/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-42	10/23/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		02/27/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/16/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-43	10/24/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		02/27/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/15/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-44	10/24/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		03/05/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/23/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-45	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-46	10/28/2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/06/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/16/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-47	03/06/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-48	2Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-49	03/05/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/20/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/23/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-50	03/05/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Wastewater Treatment	KA-3	10/21/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		03/04/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/22/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/17/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	NAPIS-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	NAPIS-2	10/21/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		03/04/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/22/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/17/20	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	NAPIS-3	10/21/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		03/04/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/22/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/17/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	OAPIS-1	10/21/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		03/04/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/22/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/17/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	STP1-NW	10/22/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		03/04/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		3Q2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		12/23/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	STP1-SW	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
	Oil Sump LDU	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	GWM-2	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	GWM-3	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-59	10/15/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		03/03/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/19/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/23/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	OW-60	10/15/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		03/03/20	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		09/21/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/11/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Selected Screening Levels		0.002	0.069	0.243	NA	0.415	0.448	0.317	0.462	0.462	2.29	0.018	98.7	98.7	NA	2.23	NA	0.0221	0.2	40	0.158

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	1,2,4-Trichloro-benzene (ug/L)	1,2-Dichloro-benzene (ug/L)	1,3-Dichloro-benzene (ug/L)	1,4-Dichloro-benzene (ug/L)	1,4-Dioxane (ug/L)	1-Methylnaphthalene (ug/L)	2,4,5-Trichlorophenol (ug/L)	2,4,6-Trichlorophenol (ug/L)	2,4-Dichlorophenol (ug/L)	2,4-Dimethylphenol (ug/L)
Land Treatment Unit	MW-1	09/20/17	ND(10)	ND(10)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(20)	ND(10)
		09/13/18	ND(10)	ND(10)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(20)	ND(10)
		12/06/18	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		08/12/19	ND(10)	ND(10)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(20)	ND(10)
		09/22/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
	MW-2	09/20/17	ND(10)	ND(10)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(20)	ND(10)
		09/13/18	ND(10)	ND(10)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(20)	ND(10)
		12/06/18	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		08/13/19	ND(10)	ND(10)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(20)	ND(10)
		09/18/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
	MW-4	09/21/17	ND(10)	ND(10)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(20)	ND(10)
		09/13/18	ND(10)	ND(10)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(20)	ND(10)
		12/06/18	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		08/13/19	ND(10)	ND(10)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(20)	ND(10)
		09/18/20	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ
	MW-5	09/11/17	ND(10)	ND(10)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(20)	ND(10)
		09/17/18	ND(10)	ND(10)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(20)	ND(10)
		12/06/18	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		08/14/19	ND(10)	ND(10)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(20)	ND(10)
		09/21/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
	SMW-2	09/11/17	ND(10)	ND(10)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(20)	ND(10)
		09/18/18	ND(10)	ND(10)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(20)	ND(10)
		08/22/19	ND(10)	ND(10)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(20)	ND(10)
		09/19/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	**9.1**	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
	SMW-4	09/11/17	ND(50)	ND(50)	ND(50)	ND(50)	--	*ND(50)*	ND(50)	*ND(50)*	*ND(100)*	ND(50)
		09/12/18	ND(10)	ND(10)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(20)	ND(10)
		12/06/18	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		08/13/19	ND(10)	ND(10)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(20)	ND(10)
		09/20/20	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ
Evaporation Ponds	EP-2	09/06/18	ND(50)	ND(50)	ND(50)	ND(50)	--	*ND(50)*	ND(50)	*ND(50)*	*ND(100)*	ND(50)
		04/30/19	ND(50)	ND(50)	ND(50)	ND(50)	--	*ND(50)*	ND(50)	*ND(50)*	*ND(100)*	ND(50)
		11/21/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	**9.5**	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	2.7
		09/16/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	1.3 J	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		12/21/20	ND(53.9)	ND(53.9)	ND(53.9)	ND(53.9)	--	--	ND(53.9) UJ	*ND(53.9) UJ*	*ND(53.9) UJ*	ND(53.9) UJ
	EP-3	09/06/18	*ND(100)*	ND(100)	ND(100)	*ND(100)*	--	*ND(100)*	ND(100)	*ND(100)*	*ND(200)*	ND(100)
		04/30/19	ND(50)	ND(50)	ND(50)	ND(50)	--	*ND(50)*	ND(50)	*ND(50)*	*ND(100)*	ND(50)
		11/20/19	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	**8.9**	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	22
		11/21/19	--	--	--	--	--	--	--	--	--	--
		09/16/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	1.3 J	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		12/21/20	ND(10.5)	ND(10.5)	ND(10.5)	ND(10.5)	--	--	ND(10.5) UJ	ND(10.5) UJ	ND(10.5) UJ	ND(10.5) UJ
	EP-4	09/06/18	ND(50)	ND(50)	ND(50)	ND(50)	--	*ND(50)*	ND(50)	*ND(50)*	*ND(100)*	ND(50)
		04/30/19	ND(50)	ND(50)	ND(50)	ND(50)	--	*ND(50)*	ND(50)	*ND(50)*	*ND(100)*	ND(50)
		09/17/20	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/21/20	ND(10.7)	ND(10.7)	ND(10.7)	ND(10.7)	--	--	ND(10.7) UJ	ND(10.7) UJ	ND(10.7) UJ	ND(10.7) UJ
	EP-5	09/06/18	*ND(100)*	ND(100)	ND(100)	*ND(100)*	--	*ND(100)*	ND(100)	*ND(100)*	*ND(200)*	ND(100)
		04/30/19	ND(50)	ND(50)	ND(50)	ND(50)	--	*ND(50)*	ND(50)	*ND(50)*	*ND(100)*	ND(50)
		09/17/20	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/21/20	ND(11.2)	ND(11.2)	ND(11.2)	ND(11.2)	--	--	ND(11.2) UJ	ND(11.2) UJ	ND(11.2) UJ	ND(11.2) UJ
	EP-6	09/07/18	*ND(100)*	ND(100)	ND(100)	*ND(100)*	--	*ND(100)*	ND(100)	*ND(100)*	*ND(200)*	ND(100)
		04/29/19	ND(50)	ND(50)	ND(50)	ND(50)	--	*ND(50)*	ND(50)	*ND(50)*	*ND(100)*	ND(50)
		09/17/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/21/20	ND(10.5)	ND(10.5)	ND(10.5)	ND(10.5)	--	--	ND(10.5) UJ	ND(10.5) UJ	ND(10.5) UJ	ND(10.5) UJ
	EP-7	09/07/18	ND(50)	ND(50)	ND(50)	ND(50)	--	*ND(50)*	ND(50)	*ND(50)*	*ND(100)*	ND(50)
		04/29/19	ND(10)	ND(10)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(20)	ND(10)
		11/20/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/17/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/21/20	ND(9.65)	ND(9.65)	ND(9.65)	ND(9.65)	--	--	ND(9.65) UJ	ND(9.65) UJ	ND(9.65) UJ	ND(9.65) UJ
	EP-8	09/07/18	ND(50)	ND(50)	ND(50)	ND(50)	--	*ND(50)*	ND(50)	*ND(50)*	*ND(100)*	ND(50)
		04/29/19	ND(10)	ND(10)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(20)	ND(10)
		11/20/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/17/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/22/20	ND(11.3) UJ	ND(11.3)	ND(11.3)	ND(11.3)	--	--	ND(11.3) UJ	ND(11.3) UJ	ND(11.3) UJ	ND(11.3)
	EP-9	09/07/18	ND(10)	ND(10)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(20)	ND(10)
		04/29/19	ND(50)	ND(50)	ND(50)	ND(50)	--	*ND(50)*	ND(50)	*ND(50)*	*ND(100)*	ND(50)
		11/20/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/17/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/21/20	ND(9.75)	ND(9.75)	ND(9.75)	ND(9.75)	--	--	ND(9.75) UJ	ND(9.75) UJ	ND(9.75) UJ	ND(9.75) UJ
	Selected Screening Levels		70	600	NA	75	4.59	11.38	1,166	11.9	45.3	354

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	2,4-Dinitrophenol (ug/L)	2,4-Dinitrotoluene (ug/L)	2,6-Dinitrotoluene (ug/L)	2-Chloronaphthalene (ug/L)	2-Chlorophenol (ug/L)	2-Methylnaphthalene (ug/L)	2-Methylphenol (ug/L)	2-Nitroaniline (ug/L)	2-Nitrophenol (ug/L)	3,3'-Dichlorobenzidine (ug/L)
Land Treatment Unit	MW-1	09/20/17	ND(20)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*
		09/13/18	ND(20)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*
		12/06/18	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		08/12/19	ND(20)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*
		09/22/20	ND(0.51) UJ	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
	MW-2	09/20/17	ND(20)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*
		09/13/18	ND(20)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*
		12/06/18	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		08/13/19	ND(20)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*
		09/18/20	ND(0.51)	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
	MW-4	09/21/17	ND(20)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*
		09/13/18	ND(20)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*
		12/06/18	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		08/13/19	ND(20)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*
		09/18/20	ND(0.51) UJ	ND(0.51) UJ	ND(0.2) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ
	MW-5	09/11/17	ND(20)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*
		09/17/18	ND(20)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*
		12/06/18	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		08/14/19	ND(20)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*
		09/21/20	ND(0.51) UJ	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
	SMW-2	09/11/17	ND(20)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*
		09/18/18	ND(20)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*
		08/22/19	ND(20)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*
		09/19/20	ND(0.51)	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
	SMW-4	09/11/17	*ND(100)*	*ND(50)*	*ND(50)*	ND(50)	ND(50)	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*
		09/12/18	ND(20)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*
		12/06/18	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		08/13/19	ND(20)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*
		09/20/20	ND(0.57) UJ	ND(0.57) UJ	ND(0.23) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ
Evaporation Ponds	EP-2	09/06/18	*ND(100)*	*ND(50)*	*ND(50)*	ND(50)	ND(50)	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*
		04/30/19	*ND(100)*	*ND(50)*	*ND(50)*	ND(50)	ND(50)	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*
		11/21/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	29	ND(0.5)	ND(0.5)	ND(0.5)
		09/16/20	ND(2.5)	ND(1)	*ND(2.5)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*
		12/21/20	*ND(162) UJ*	*ND(53.9)*	*ND(53.9)*	ND(53.9)	ND(53.9) UJ	--	ND(53.9) UJ	ND(53.9)	ND(53.9) UJ	*ND(53.9)*
	EP-3	09/06/18	*ND(200)*	*ND(100)*	*ND(100)*	ND(100)	*ND(100)*	*ND(100)*	ND(100)	ND(100)	ND(100)	*ND(100)*
		04/30/19	*ND(100)*	*ND(50)*	*ND(50)*	ND(50)	ND(50)	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*
		11/20/19	ND(2.5)	*ND(2.5)*	*ND(1)*	ND(2.5)	ND(2.5)	ND(2.5)	150	ND(2.5)	ND(2.5)	*ND(2.5)*
		11/21/19	--	--	--	--	--	--	--	--	--	--
		09/16/20	ND(2.5)	ND(1)	*ND(2.5)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*
		12/21/20	ND(31.4) UJ	*ND(10.5)*	*ND(10.5)*	ND(10.5)	ND(10.5) UJ	--	ND(10.5) UJ	ND(10.5)	ND(10.5) UJ	*ND(10.5)*
	EP-4	09/06/18	*ND(100)*	*ND(50)*	*ND(50)*	ND(50)	ND(50)	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*
		04/30/19	*ND(100)*	*ND(50)*	*ND(50)*	ND(50)	ND(50)	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*
		09/17/20	ND(0.52)	ND(0.52)	*ND(0.52)*	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/21/20	ND(32.2) UJ	*ND(10.7)*	*ND(10.7)*	ND(10.7)	ND(10.7) UJ	--	ND(10.7) UJ	ND(10.7)	ND(10.7) UJ	*ND(10.7)*
	EP-5	09/06/18	*ND(200)*	*ND(100)*	*ND(100)*	ND(100)	*ND(100)*	*ND(100)*	ND(100)	ND(100)	ND(100)	*ND(100)*
		04/30/19	*ND(100)*	*ND(50)*	*ND(50)*	ND(50)	ND(50)	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*
		09/17/20	ND(0.52)	ND(0.52)	ND(0.21)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/21/20	ND(33.6) UJ	*ND(11.2)*	*ND(11.2)*	ND(11.2)	ND(11.2) UJ	--	ND(11.2) UJ	ND(11.2)	ND(11.2) UJ	*ND(11.2)*
	EP-6	09/07/18	*ND(200)*	*ND(100)*	*ND(100)*	ND(100)	*ND(100)*	*ND(100)*	ND(100)	ND(100)	ND(100)	*ND(100)*
		04/29/19	*ND(100)*	*ND(50)*	*ND(50)*	ND(50)	ND(50)	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*
		09/17/20	ND(0.51)	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/21/20	ND(31.6) UJ	*ND(10.5)*	*ND(10.5)*	ND(10.5)	ND(10.5) UJ	--	ND(10.5) UJ	ND(10.5)	ND(10.5) UJ	*ND(10.5)*
	EP-7	09/07/18	*ND(100)*	*ND(50)*	*ND(50)*	ND(50)	ND(50)	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*
		04/29/19	ND(20)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*
		11/20/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/17/20	ND(0.51)	ND(0.2)	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/21/20	ND(29) UJ	*ND(9.65)*	*ND(9.65)*	ND(9.65)	ND(9.65) UJ	--	ND(9.65) UJ	ND(9.65)	ND(9.65) UJ	*ND(9.65)*
	EP-8	09/07/18	*ND(100)*	*ND(50)*	*ND(50)*	ND(50)	ND(50)	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*
		04/29/19	ND(20)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*
		11/20/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/17/20	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/22/20	ND(33.9)	*ND(11.3) UJ*	*ND(11.3) UJ*	ND(11.3) UJ	ND(11.3)	--	ND(11.3)	ND(11.3)	ND(11.3) UJ	*ND(11.3)*
	EP-9	09/07/18	ND(20)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*
		04/29/19	*ND(100)*	*ND(50)*	*ND(50)*	ND(50)	ND(50)	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*
		11/20/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/17/20	ND(0.51)	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/21/20	ND(29.3) UJ	*ND(9.75)*	*ND(9.75)*	ND(9.75)	ND(9.75) UJ	--	ND(9.75) UJ	ND(9.75)	ND(9.75) UJ	*ND(9.75)*
	Selected Screening Levels		38.7	2.38	0.485	733	91	35.1	NA	NA	NA	1.25

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	3,4-Methylphenol (ug/L)	3-Nitroaniline (ug/L)	2-Methyl-4,6-dinitrophenol (ug/L)	4-Bromophenylphenylether (ug/L)	4-Chloro-3-Methylphenol (ug/L)	4-Chloroaniline (ug/L)	4-Chlorophenyl-phenylether (ug/L)	4-Nitroaniline (ug/L)	4-Nitrophenol (ug/L)	Acenaphthene (ug/L)
Land Treatment Unit	MW-1	09/20/17	ND(10)	ND(10)	ND(20)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
		09/13/18	ND(10)	ND(10)	ND(20)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
		12/06/18	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		08/12/19	ND(10)	ND(10)	ND(20)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
		09/22/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
	MW-2	09/20/17	ND(10)	ND(10)	ND(20)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
		09/13/18	ND(10)	ND(10)	ND(20)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
		12/06/18	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		08/13/19	ND(10)	ND(10)	ND(20)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
		09/18/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
	MW-4	09/21/17	ND(10)	ND(10)	ND(20)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
		09/13/18	ND(10)	ND(10)	ND(20)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
		12/06/18	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		08/13/19	ND(10)	ND(10)	ND(20)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
		09/18/20	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ
	MW-5	09/11/17	ND(10)	ND(10)	ND(20)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
		09/17/18	ND(10)	ND(10)	ND(20)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
		12/06/18	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		08/14/19	ND(10)	ND(10)	ND(20)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
		09/21/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
	SMW-2	09/11/17	ND(10)	ND(10)	ND(20)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
		09/18/18	ND(10)	ND(10)	ND(20)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
		08/22/19	ND(10)	ND(10)	ND(20)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
		09/19/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
	SMW-4	09/11/17	ND(50)	ND(50)	ND(100)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)
		09/12/18	ND(10)	ND(10)	ND(20)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
		12/06/18	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		08/13/19	ND(10)	ND(10)	ND(20)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
		09/20/20	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ
Evaporation Ponds	EP-2	09/06/18	140	ND(50)	ND(100)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)
		04/30/19	59	ND(50)	ND(100)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)
		11/21/19	39	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/16/20	360	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		12/21/20	--	ND(53.9)	ND(53.9) UJ	ND(53.9)	ND(53.9)	ND(53.9)	ND(53.9)	ND(53.9)	ND(53.9) UJ	ND(53.9)
	EP-3	09/06/18	ND(100)	ND(100)	ND(200)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)
		04/30/19	ND(50)	ND(50)	ND(100)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)
		11/20/19	210	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		11/21/19	--	--	--	--	--	--	--	--	--	--
		09/16/20	260	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		12/21/20	--	ND(10.5)	ND(10.5) UJ	ND(10.5)	ND(10.5)	ND(10.5)	ND(10.5)	ND(10.5)	ND(10.5) UJ	ND(10.5)
	EP-4	09/06/18	ND(50)	ND(50)	ND(100)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)
		04/30/19	ND(50)	ND(50)	ND(100)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)
		09/17/20	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/21/20	--	ND(10.7)	ND(10.7) UJ	ND(10.7)	ND(10.7)	ND(10.7)	ND(10.7)	ND(10.7)	ND(10.7) UJ	ND(10.7)
	EP-5	09/06/18	ND(100)	ND(100)	ND(200)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)
		04/30/19	ND(50)	ND(50)	ND(100)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)
		09/17/20	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/21/20	--	ND(11.2)	ND(11.2) UJ	ND(11.2)	ND(11.2)	ND(11.2)	ND(11.2)	ND(11.2)	ND(11.2) UJ	ND(11.2)
	EP-6	09/07/18	ND(100)	ND(100)	ND(200)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)
		04/29/19	ND(50)	ND(50)	ND(100)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)
		09/17/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/21/20	--	ND(10.5)	ND(10.5) UJ	ND(10.5)	ND(10.5)	ND(10.5)	ND(10.5)	ND(10.5)	ND(10.5) UJ	ND(10.5)
	EP-7	09/07/18	ND(50)	ND(50)	ND(100)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)
		04/29/19	ND(10)	ND(10)	ND(20)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
		11/20/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/17/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/21/20	--	ND(9.65)	ND(9.65) UJ	ND(9.65)	ND(9.65)	ND(9.65)	ND(9.65)	ND(9.65)	ND(9.65) UJ	ND(9.65)
	EP-8	09/07/18	ND(50)	ND(50)	ND(100)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)
		04/29/19	ND(10)	ND(10)	ND(20)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
		11/20/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/17/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/22/20	--	ND(11.3)	ND(11.3)	ND(11.3) UJ	ND(11.3)	ND(11.3)	ND(11.3) UJ	ND(11.3)	ND(11.3)	ND(11.3) UJ
	EP-9	09/07/18	ND(10)	ND(10)	ND(20)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
		04/29/19	ND(50)	ND(50)	ND(100)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)
		11/20/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/17/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/21/20	--	ND(9.75)	ND(9.75) UJ	ND(9.75)	ND(9.75)	ND(9.75)	ND(9.75)	ND(9.75)	ND(9.75) UJ	ND(9.75)
	Selected Screening Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	535

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Acenaphthylene (ug/L)	Aniline (ug/L)	Anthracene (ug/L)	Azobenzene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluor-anthene (ug/L)	Benzo(ghi)perylene (ug/L)	Benzo(k)fluor-anthene (ug/L)	Benzoic Acid (ug/L)	Benzyl Alcohol (ug/L)
Land Treatment Unit	MW-1	09/20/17	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(20)	ND(10)
		09/13/18	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	6.6	ND(10)
		12/06/18	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(0.5)	ND(0.5)	--	ND(0.5)
		08/12/19	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(20)	ND(10)
		09/22/20	ND(0.51)	ND(0.51)	ND(0.51)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.51)	ND(0.51)	ND(0.51)	0.77
	MW-2	09/20/17	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	7.3	ND(10)
		09/13/18	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	6.8	ND(10)
		12/06/18	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(0.5)	ND(0.5)	--	ND(0.5)
		08/13/19	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(20)	ND(10)
		09/18/20	ND(0.51)	ND(0.51)	ND(0.51)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.51)	ND(0.51)	1.1/ND(1.1)U*	ND(0.51)
	MW-4	09/21/17	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	14	ND(10)
		09/13/18	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	6.5	ND(10)
		12/06/18	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(0.5)	ND(0.5)	--	ND(0.5)
		08/13/19	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(20)	ND(10)
		09/18/20	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	--	ND(0.1) UJ	ND(0.1) UJ	ND(0.1) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ
	MW-5	09/11/17	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(20)	ND(10)
		09/17/18	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	7	ND(10)
		12/06/18	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(0.5)	ND(0.5)	--	ND(0.5)
		08/14/19	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(20)	ND(10)
		09/21/20	ND(0.51)	ND(0.51)	ND(0.51)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.51)	ND(0.51)	3.3	ND(0.51)
	SMW-2	09/11/17	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	6.5	ND(10)
		09/18/18	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(20)	ND(10)
		08/22/19	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(20)	ND(10)
		09/19/20	ND(0.51)	ND(0.51)	ND(0.51)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
	SMW-4	09/11/17	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	*ND(50)*	33	ND(50)
		09/12/18	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	6.4	ND(10)
		12/06/18	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(0.5)	ND(0.5)	--	ND(0.5)
		08/13/19	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(20)	ND(10)
		09/20/20	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	--	ND(0.11) UJ	ND(0.11) UJ	ND(0.11) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	0.49 J
	EP-2	09/06/18	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	*ND(50)*	62	ND(50)
		04/30/19	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	*ND(50)*	110	ND(50)
		11/21/19	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.05)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/16/20	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(2.5)	ND(2.5)	8.8	ND(2.5)
		12/21/20	ND(53.9)	ND(53.9) R	ND(53.9)	ND(53.9)	ND(53.9)	*ND(53.9)*	*ND(53.9)*	ND(53.9)	*ND(53.9)*	ND(162)	ND(53.9)
	EP-3	09/06/18	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	*ND(100)*	*ND(100)*	ND(100)	*ND(100)*	71	ND(100)
		04/30/19	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	*ND(50)*	ND(100)	ND(50)
		11/20/19	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(2.5)	ND(2.5)	ND(0.5)	ND(2.5)
		11/21/19	--	--	--	--	--	--	--	--	--	--	--
		09/16/20	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(2.5)	ND(2.5)	40	ND(2.5)
		12/21/20	ND(10.5)	ND(10.5) R	ND(10.5)	ND(10.5)	ND(10.5)	*ND(10.5)*	*ND(10.5)*	ND(10.5)	*ND(10.5)*	ND(31.4)	ND(10.5)
	EP-4	09/06/18	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	*ND(50)*	33	ND(50)
		04/30/19	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	*ND(50)*	37	ND(50)
		09/17/20	ND(0.52)	ND(0.52)	ND(0.52)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/21/20	ND(10.7)	ND(10.7) R	ND(10.7)	ND(10.7)	ND(10.7)	*ND(10.7)*	*ND(10.7)*	ND(10.7)	*ND(10.7)*	ND(32.2)	ND(10.7)
	EP-5	09/06/18	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	*ND(100)*	*ND(100)*	ND(100)	*ND(100)*	69	ND(100)
		04/30/19	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	*ND(50)*	36	ND(50)
		09/17/20	ND(0.52)	ND(0.52)	ND(0.52)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/21/20	ND(11.2)	ND(11.2) R	ND(11.2)	ND(11.2)	ND(11.2)	*ND(11.2)*	*ND(11.2)*	ND(11.2)	*ND(11.2)*	ND(33.6)	ND(11.2)
Evaporation Ponds	EP-6	09/07/18	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	*ND(100)*	*ND(100)*	ND(100)	*ND(100)*	65	ND(100)
		04/29/19	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	*ND(50)*	37	ND(50)
		09/17/20	ND(0.51)	ND(0.51)	ND(0.51)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.51)	ND(0.51)	1.5 JB	ND(0.51)
		12/21/20	ND(10.5)	ND(10.5) R	ND(10.5)	ND(10.5)	ND(10.5)	*ND(10.5)*	*ND(10.5)*	ND(10.5)	*ND(10.5)*	ND(31.6)	ND(10.5)
	EP-7	09/07/18	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	*ND(50)*	ND(100)	ND(50)
		04/29/19	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(20)	ND(10)
		11/20/19	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/17/20	ND(0.51)	ND(0.51)	ND(0.51)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/21/20	ND(9.65)	ND(9.65) R	ND(9.65)	ND(9.65)	ND(9.65)	*ND(9.65)*	*ND(9.65)*	ND(9.65)	*ND(9.65)*	ND(29)	ND(9.65)
	EP-8	09/07/18	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	*ND(50)*	ND(100)	ND(50)
		04/29/19	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(20)	ND(10)
		11/20/19	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/17/20	ND(0.51)	ND(0.51)	ND(0.51)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/22/20	ND(11.3) UJ	ND(11.3) R	ND(11.3)	ND(11.3)	ND(11.3)	*ND(11.3)*	*ND(11.3)*	ND(11.3)	*ND(11.3)*	ND(33.9) UJ	ND(11.3)
	EP-9	09/07/18	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	6.3	ND(10)
		04/29/19	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	*ND(50)*	ND(100)	ND(50)
		11/20/19	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/17/20	ND(0.51)	ND(0.51)	ND(0.51)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/21/20	ND(9.75)	ND(9.75) R	ND(9.75)	ND(9.75)	ND(9.75)	*ND(9.75)*	*ND(9.75)*	ND(9.75)	*ND(9.75)*	ND(29.3)	ND(9.75)
	Selected Screening Levels		NA	NA	1,721	NA	NA	0.2	0.34	NA	3.43	NA	NA

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Bis(2chloro ethoxy)methane (ug/L)	Bis(2-chloro ethyl)ether (ug/L)	Bis(2chloro isopropyl)ether (ug/L)	Bis(2-ethyl hexyl)phthalate (ug/L)	Benzyl Butyl Phthalate (ug/L)	Carbazole (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Dibenzofuran (ug/L)	Diethylphthalate (ug/L)	Dimethyl Phthalate (ug/L)
	MW-1	09/20/17	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		09/13/18	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		12/06/18	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)
		08/12/19	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		09/22/20	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.03)	ND(0.51)	ND(0.51)	ND(0.51)
	MW-2	09/20/17	ND(10)	*ND(10)*	*ND(10)*	6	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		09/13/18	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		12/06/18	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)
		08/13/19	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		09/18/20	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.03)	ND(0.51)	ND(0.51)	ND(0.51)
	MW-4	09/21/17	ND(10)	*ND(10)*	*ND(10)*	5.1	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		09/13/18	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		12/06/18	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)
Land		08/13/19	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
Treatment		09/18/20	ND(0.51) UJ	*ND(0.51) UJ*	ND(0.51) UJ	0.28 J	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.03) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ
Unit	MW-5	09/11/17	ND(10)	*ND(10)*	*ND(10)*	5.7	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		09/17/18	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		12/06/18	ND(0.5)	*ND(0.5)*	ND(0.5)	1.1	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)
		08/14/19	ND(10)	*ND(10)*	*ND(10)*	18	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		09/21/20	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.031)	ND(0.51)	ND(0.51)	ND(0.51)
	SMW-2	09/11/17	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		09/18/18	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		08/22/19	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		09/19/20	ND(0.51)	*ND(0.51)*	ND(0.51)	0.23 J	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.031)	ND(0.51)	ND(0.51)	ND(0.51)
	SMW-4	09/11/17	ND(50)	*ND(50)*	*ND(50)*	34	ND(50)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)
		09/12/18	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		12/06/18	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)
		08/13/19	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		09/20/20	ND(0.57) UJ	*ND(0.57) UJ*	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.034) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ
	EP-2	09/06/18	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)
		04/30/19	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)
		11/21/19	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	0.69	ND(0.5)
		09/16/20	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(0.15)*	ND(2.5)	ND(2.5)	ND(2.5)
		12/21/20	ND(53.9)	*ND(53.9)*	*ND(53.9)*	ND(53.9)	ND(53.9)	ND(53.9)	*ND(53.9)*	*ND(53.9)*	ND(53.9)	ND(53.9)	ND(53.9)
	EP-3	09/06/18	ND(100)	*ND(100)*	*ND(100)*	*ND(100)*	ND(100)	ND(100)	*ND(100)*	*ND(100)*	ND(100)	ND(100)	ND(100)
		04/30/19	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)
		11/20/19	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(0.125)*	ND(2.5)	ND(2.5)	ND(2.5)
		11/21/19	--	--	--	--	--	--	--	--	--	--	--
		09/16/20	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*	ND(0.15)	ND(2.5)	ND(2.5)
		12/21/20	ND(10.5)	*ND(10.5)*	*ND(10.5)*	ND(10.5)	ND(10.5)	ND(10.5)	ND(10.5)	*ND(10.5)*	ND(10.5)	ND(10.5)	ND(10.5)
	EP-4	09/06/18	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)
		04/30/19	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)
		09/17/20	ND(0.52)	*ND(0.52)*	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.031)	ND(0.52)	ND(0.52)	ND(0.52)
		12/21/20	ND(10.7)	*ND(10.7)*	*ND(10.7)*	ND(10.7)	ND(10.7)	ND(10.7)	ND(10.7)	*ND(10.7)*	ND(10.7)	ND(10.7)	ND(10.7)
	EP-5	09/06/18	ND(100)	*ND(100)*	*ND(100)*	*ND(100)*	ND(100)	ND(100)	*ND(100)*	*ND(100)*	ND(100)	ND(100)	ND(100)
		04/30/19	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)
		09/17/20	ND(0.52)	*ND(0.52)*	ND(0.52)	0.89	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.031)	ND(0.52)	ND(0.52)	ND(0.52)
Evaporation		12/21/20	ND(11.2)	*ND(11.2)*	*ND(11.2)*	ND(11.2)	ND(11.2)	ND(11.2)	ND(11.2)	*ND(11.2)*	ND(11.2)	ND(11.2)	ND(11.2)
Ponds	EP-6	09/07/18	ND(100)	*ND(100)*	*ND(100)*	*ND(100)*	ND(100)	ND(100)	*ND(100)*	*ND(100)*	ND(100)	ND(100)	ND(100)
		04/29/19	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)
		09/17/20	ND(0.51)	*ND(0.5)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.031)	ND(0.51)	ND(0.51)	ND(0.51)
		12/21/20	ND(10.5)	*ND(10.5)*	*ND(10.5)*	ND(10.5)	ND(10.5)	ND(10.5)	ND(10.5)	*ND(10.5)*	ND(10.5)	ND(10.5)	ND(10.5)
	EP-7	09/07/18	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)
		04/29/19	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		11/20/19	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		09/17/20	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.031)	ND(0.51)	ND(0.51)	ND(0.51)
		12/21/20	ND(9.65)	*ND(9.65)*	ND(9.65)	ND(9.65)	ND(9.65)	ND(9.65)	ND(9.65)	*ND(9.65)*	ND(9.65)	ND(9.65)	ND(9.65)
	EP-8	09/07/18	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)
		04/29/19	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		11/20/19	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		09/17/20	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.03)	ND(0.51)	ND(0.51)	ND(0.51)
		12/22/20	ND(11.3)	*ND(11.3)*	*ND(11.3)*	ND(11.3)	ND(11.3)	ND(11.3)	ND(11.3)	*ND(11.3)*	ND(11.3) UJ	ND(11.3)	ND(11.3) UJ
	EP-9	09/07/18	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		04/29/19	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)
		11/20/19	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		09/17/20	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.03)	ND(0.51)	ND(0.51)	ND(0.51)
		12/21/20	ND(9.75)	*ND(9.75)*	ND(9.75)	ND(9.75)	ND(9.75)	ND(9.75)	ND(9.75)	*ND(9.75)*	ND(9.75)	ND(9.75)	ND(9.75)
	Selected Screening Levels		NA	0.137	9.81	55.64	NA	NA	34.3	0.034	NA	14,801	612

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Di-n-butyl-phthalate (ug/L)	Di-n-octyl-phthalate (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Hexachloro-benzene (ug/L)	Hexachloro-butadiene (ug/L)	Hexachloro-cyclopentadiene (ug/L)	Hexachloro-ethane (ug/L)	Indeno-(1,2,3-cd) pyrene (ug/L)	Isophorone (ug/L)	Naphthalene (ug/L)	Nitrobenzene (ug/L)	N-Nitroso-dimethylamine (ug/L)
Land Treatment Unit	MW-1	09/20/17	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*
		09/13/18	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*
		12/06/18	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*
		08/12/19	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*
		09/22/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*
	MW-2	09/20/17	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*
		09/13/18	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*
		12/06/18	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*
		08/13/19	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*
		09/18/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*
	MW-4	09/21/17	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*
		09/13/18	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*
		12/06/18	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*
		08/13/19	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*
		09/18/20	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	*ND(0.51) UJ*	ND(0.51) UJ	*ND(0.51) UJ*	ND(0.51) UJ	ND(0.2) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	*ND(0.51) UJ*
	MW-5	09/11/17	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*
		09/17/18	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*
		12/06/18	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*
		08/14/19	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*
		09/21/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*
	SMW-2	09/11/17	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*
		09/18/18	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*
		08/22/19	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*
		09/19/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*
	SMW-4	09/11/17	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	*ND(50)*	*ND(50)*	*ND(50)*
		09/12/18	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*
		12/06/18	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*
		08/13/19	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*
		09/20/20	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	*ND(0.57) UJ*	ND(0.57) UJ	*ND(0.57) UJ*	ND(0.57) UJ	ND(0.23) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	*ND(0.57) UJ*
	EP-2	09/06/18	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	*ND(50)*	*ND(50)*	*ND(50)*
		04/30/19	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	*ND(50)*	*ND(50)*	*ND(50)*
		11/21/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		09/16/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5) UJ*	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(1)	ND(2.5)	ND(2.5)	*ND(2.5)*	*ND(2.5)*
		12/21/20	ND(53.9) UJ	ND(53.9) UJ	ND(53.9)	ND(53.9)	*ND(53.9) UJ*	--	*ND(108)*	*ND(53.9)*	ND(53.9)	ND(53.9)	*ND(53.9)*	*ND(53.9) UJ*	*ND(53.9)*
	EP-3	09/06/18	ND(100)	ND(100)	ND(100)	ND(100)	*ND(100)*	ND(100)	*ND(100)*	*ND(100)*	ND(100)	ND(100)	*ND(100)*	*ND(100)*	*ND(100)*
		04/30/19	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	*ND(50)*	*ND(50)*	*ND(50)*
		11/20/19	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(1)	ND(2.5)	ND(2.5)	*ND(2.5)*	--
		11/21/19	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/16/20	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5) UJ*	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(2.5)	ND(1)	ND(2.5)	*ND(2.5)*	*ND(2.5)*
		12/21/20	ND(10.5) UJ	ND(10.5) UJ	ND(10.5)	ND(10.5)	*ND(10.5) UJ*	--	*ND(20.9)*	*ND(10.5)*	ND(10.5)	ND(10.5)	ND(10.5)	*ND(10.5) UJ*	*ND(10.5)*
	EP-4	09/06/18	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	*ND(50)*	*ND(50)*	*ND(50)*
		04/30/19	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	*ND(50)*	*ND(50)*	*ND(50)*
		09/17/20	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	*ND(0.52) UJ*	ND(0.52)	*ND(0.52)*	ND(0.52)	ND(0.21)	ND(0.52)	ND(0.52)	ND(0.52)	*ND(0.52)*
		12/21/20	ND(10.7) UJ	ND(10.7) UJ	ND(10.7)	ND(10.7)	*ND(10.7) UJ*	--	*ND(21.4)*	*ND(10.7)*	ND(10.7)	ND(10.7)	ND(10.7)	*ND(10.7) UJ*	*ND(10.7)*
	EP-5	09/06/18	ND(100)	ND(100)	ND(100)	ND(100)	*ND(100)*	ND(100)	*ND(100)*	*ND(100)*	ND(100)	ND(100)	*ND(100)*	*ND(100)*	*ND(100)*
		04/30/19	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	*ND(50)*	*ND(50)*	*ND(50)*
		09/17/20	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	*ND(0.52) UJ*	ND(0.52)	*ND(0.52)*	ND(0.52)	ND(0.21)	ND(0.52)	ND(0.52)	ND(0.52)	*ND(0.52)*
Evaporation Ponds		12/21/20	ND(11.2) UJ	ND(11.2) UJ	ND(11.2)	ND(11.2)	*ND(11.2) UJ*	--	*ND(22.4)*	*ND(11.2)*	ND(11.2)	ND(11.2)	ND(11.2)	*ND(11.2) UJ*	*ND(11.2)*
	EP-6	09/07/18	ND(100)	ND(100)	ND(100)	ND(100)	*ND(100)*	ND(100)	*ND(100)*	*ND(100)*	ND(100)	ND(100)	*ND(100)*	*ND(100)*	*ND(100)*
		04/29/19	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	*ND(50)*	*ND(50)*	*ND(50)*
		09/17/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51) UJ*	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*
		12/21/20	ND(10.5) UJ	ND(10.5) UJ	ND(10.5)	ND(10.5)	*ND(10.5) UJ*	--	*ND(21.1)*	*ND(10.5)*	ND(10.5)	ND(10.5)	ND(10.5)	*ND(10.5) UJ*	*ND(10.5)*
	EP-7	09/07/18	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	*ND(50)*	*ND(50)*	*ND(50)*
		04/29/19	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*
		11/20/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		09/17/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51) UJ*	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*
		12/21/20	ND(9.65) UJ	ND(9.65) UJ	ND(9.65)	ND(9.65)	*ND(9.65) UJ*	--	*ND(19.3)*	*ND(9.65)*	ND(9.65)	ND(9.65)	ND(9.65)	*ND(9.65) UJ*	*ND(9.65)*
	EP-8	09/07/18	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	*ND(50)*	*ND(50)*	*ND(50)*
		04/29/19	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*
		11/20/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		09/17/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51) UJ*	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*
		12/22/20	ND(11.3)	ND(11.3)	ND(11.3) UJ	ND(11.3) UJ	*ND(11.3) UJ*	--	*ND(22.6) UJ*	*ND(11.3)*	ND(11.3)	ND(11.3)	ND(11.3)	*ND(11.3)*	*ND(11.3)*
	EP-9	09/07/18	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*
		04/29/19	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	*ND(50)*	*ND(50)*	*ND(50)*
		11/20/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		09/17/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51) UJ*	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*
		12/21/20	ND(9.75) UJ	ND(9.75) UJ	ND(9.75)	ND(9.75)	*ND(9.75) UJ*	--	*ND(19.5)*	*ND(9.75)*	ND(9.75)	ND(9.75)	ND(9.75)	*ND(9.75) UJ*	*ND(9.75)*
	Selected Screening Levels		885	NA	802	288	0.0976	NA	0.41	3.28	NA	781	30	1.4	0.0049

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	N-Nitrosodi-n-propylamine (ug/L)	N-Nitrosodiphenyl-amine (ug/L)	Pentachloro-phenol (ug/L)	Phenanthrene (ug/L)	Phenol (ug/L)	Pyrene (ug/L)	Pyridine (ug/L)	Benzidine (ug/L)	2,3,4,6-Tetrachlorophenol (ug/L)	2,3,5,6-Tetrachlorophenol (ug/L)	Dibenz(a,h)acridine (ug/L)	7,12-Dimethyl benz(a)anthracene (ug/L)	1,2-Diphenyl hydrazine (ug/L)	Quinoline (ug/L)	Thiophenol (Benzenethiol) (ug/L)
Land Treatment Unit	MW-1	09/20/17	*ND(10)*	ND(10)	*ND(20)*	ND(10)	ND(10)	ND(10)	ND(10)	--	--	--	--	--	--	--	--
		09/13/18	*ND(10)*	ND(10)	*ND(20)*	ND(10)	ND(10)	ND(10)	ND(10)	--	--	--	--	--	--	--	--
		12/06/18	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		08/12/19	*ND(10)*	ND(10)	*ND(20)*	ND(10)	ND(10)	ND(10)	ND(10)	--	--	--	--	--	--	--	--
		09/22/20	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	--	--	--	--	--
	MW-2	09/20/17	*ND(10)*	ND(10)	*ND(20)*	ND(10)	ND(10)	ND(10)	ND(10)	--	--	--	--	--	--	--	--
		09/13/18	*ND(10)*	ND(10)	*ND(20)*	ND(10)	ND(10)	ND(10)	ND(10)	--	--	--	--	--	--	--	--
		12/06/18	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		08/13/19	*ND(10)*	ND(10)	*ND(20)*	ND(10)	ND(10)	ND(10)	ND(10)	--	--	--	--	--	--	--	--
		09/18/20	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	--	--	--	--	--
	MW-4	09/21/17	*ND(10)*	ND(10)	*ND(20)*	ND(10)	ND(10)	ND(10)	ND(10)	--	--	--	--	--	--	--	--
		09/13/18	*ND(10)*	ND(10)	*ND(20)*	ND(10)	ND(10)	ND(10)	ND(10)	--	--	--	--	--	--	--	--
		12/06/18	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		08/13/19	*ND(10)*	ND(10)	*ND(20)*	ND(10)	ND(10)	ND(10)	ND(10)	--	--	--	--	--	--	--	--
		09/18/20	*ND(0.51) UJ*	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	ND(0.51) UJ	*ND(0.51) UJ*	ND(0.51) UJ	ND(0.51) UJ	--	--	--	--	--
	MW-5	09/11/17	*ND(10)*	ND(10)	*ND(20)*	ND(10)	ND(10)	ND(10)	ND(10)	--	--	--	--	--	--	--	--
		09/17/18	*ND(10)*	ND(10)	*ND(20)*	ND(10)	ND(10)	ND(10)	ND(10)	--	--	--	--	--	--	--	--
		12/06/18	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		08/14/19	*ND(10)*	ND(10)	*ND(20)*	ND(10)	ND(10)	ND(10)	ND(10)	--	--	--	--	--	--	--	--
		09/21/20	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	--	--	--	--	--
	SMW-2	09/11/17	*ND(10)*	ND(10)	*ND(20)*	ND(10)	ND(10)	ND(10)	ND(10)	--	--	--	--	--	--	--	--
		09/18/18	*ND(10)*	ND(10)	*ND(20)*	ND(10)	ND(10)	ND(10)	ND(10)	--	--	--	--	--	--	--	--
		08/22/19	*ND(10)*	ND(10)	*ND(20)*	ND(10)	ND(10)	ND(10)	ND(10)	--	--	--	--	--	--	--	--
		09/19/20	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	--	--	--	--	--
	SMW-4	09/11/17	*ND(50)*	ND(50)	*ND(100)*	ND(50)	ND(50)	ND(50)	ND(50)	--	--	--	--	--	--	--	--
		09/12/18	*ND(10)*	ND(10)	*ND(20)*	ND(10)	ND(10)	ND(10)	ND(10)	--	--	--	--	--	--	--	--
		12/06/18	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		08/13/19	*ND(10)*	ND(10)	*ND(20)*	ND(10)	ND(10)	ND(10)	ND(10)	--	--	--	--	--	--	--	--
		09/20/20	*ND(0.57) UJ*	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	ND(0.57) UJ	*ND(0.57) UJ*	ND(0.57) UJ	ND(0.57) UJ	--	--	--	--	--
	EP-2	09/06/18	*ND(50)*	ND(50)	*ND(100)*	ND(50)	120	ND(50)	ND(50)	--	--	--	--	--	--	--	--
		04/30/19	*ND(50)*	ND(50)	*ND(100)*	ND(50)	64	ND(50)	ND(50)	--	--	--	--	--	--	--	--
		11/21/19	--	ND(0.5)	ND(0.5)	ND(0.5)	190	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		09/16/20	*ND(2.5)*	ND(2.5)	*ND(2.5)*	ND(2.5)	4.6	ND(2.5)	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(2.5)	--	--	--	--	--
		12/21/20	*ND(53.9)*	ND(53.9)	*ND(108)*	ND(53.9)	ND(53.9) UJ	ND(53.9)	ND(53.9)	--	--	--	--	--	--	--	--
	EP-3	09/06/18	*ND(100)*	ND(100)	*ND(200)*	ND(100)	ND(100)	ND(100)	ND(100)	--	--	--	--	--	--	--	--
		04/30/19	*ND(50)*	ND(50)	*ND(100)*	ND(50)	ND(50)	ND(50)	ND(50)	--	--	--	--	--	--	--	--
		11/20/19	--	ND(2.5)	*ND(2.5)*	ND(2.5)	700	ND(2.5)	ND(2.5)	--	--	--	--	--	--	--	--
		11/21/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/16/20	*ND(2.5)*	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(2.5)	--	--	--	--	--
		12/21/20	*ND(10.5)*	ND(10.5)	*ND(20.9)*	ND(10.5)	ND(10.5) UJ	ND(10.5)	ND(10.5)	--	--	--	--	--	--	--	--
	EP-4	09/06/18	*ND(50)*	ND(50)	*ND(100)*	ND(50)	ND(50)	ND(50)	ND(50)	--	--	--	--	--	--	--	--
		04/30/19	*ND(50)*	ND(50)	*ND(100)*	ND(50)	ND(50)	ND(50)	ND(50)	--	--	--	--	--	--	--	--
		09/17/20	*ND(0.52)*	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	*ND(0.52)*	ND(0.52)	ND(0.52)	--	--	--	--	--
		12/21/20	*ND(10.7)*	ND(10.7)	*ND(21.4)*	ND(10.7)	ND(10.7) UJ	ND(10.7)	ND(10.7)	--	--	--	--	--	--	--	--
	EP-5	09/06/18	*ND(100)*	ND(100)	*ND(200)*	ND(100)	ND(100)	ND(100)	ND(100)	--	--	--	--	--	--	--	--
		04/30/19	*ND(50)*	ND(50)	*ND(100)*	ND(50)	ND(50)	ND(50)	ND(50)	--	--	--	--	--	--	--	--
		09/17/20	*ND(0.52)*	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	*ND(0.52)*	ND(0.52)	ND(0.52)	--	--	--	--	--
Evaporation Ponds		12/21/20	*ND(11.2)*	ND(11.2)	*ND(22.4)*	ND(11.2)	ND(11.2) UJ	ND(11.2)	ND(11.2)	--	--	--	--	--	--	--	--
	EP-6	09/07/18	*ND(100)*	ND(100)	*ND(200)*	ND(100)	ND(100)	ND(100)	ND(100)	--	--	--	--	--	--	--	--
		04/29/19	*ND(50)*	ND(50)	*ND(100)*	ND(50)	ND(50)	ND(50)	ND(50)	--	--	--	--	--	--	--	--
		09/17/20	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	--	--	--	--	--
		12/21/20	*ND(10.5)*	ND(10.5)	*ND(21.1)*	ND(10.5)	ND(10.5) UJ	ND(10.5)	ND(10.5)	--	--	--	--	--	--	--	--
	EP-7	09/07/18	*ND(50)*	ND(50)	*ND(100)*	ND(50)	ND(50)	ND(50)	ND(50)	--	--	--	--	--	--	--	--
		04/29/19	*ND(10)*	ND(10)	*ND(20)*	ND(10)	ND(10)	ND(10)	ND(10)	--	--	--	--	--	--	--	--
		11/20/19	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		09/17/20	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	--	--	--	--	--
		12/21/20	*ND(9.65)*	ND(9.65)	*ND(19.3)*	ND(9.65)	ND(9.65) UJ	ND(9.65)	ND(9.65)	--	--	--	--	--	--	--	--
	EP-8	09/07/18	*ND(50)*	ND(50)	*ND(100)*	ND(50)	ND(50)	ND(50)	ND(50)	--	--	--	--	--	--	--	--
		04/29/19	*ND(10)*	ND(10)	*ND(20)*	ND(10)	ND(10)	ND(10)	ND(10)	--	--	--	--	--	--	--	--
		11/20/19	--	ND(0.5)	ND(0.5)	ND(0.5)	11	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		09/17/20	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	0.64	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	--	--	--	--	--
		12/22/20	*ND(11.3)*	ND(11.3)	*ND(22.6)*	ND(11.3)	ND(11.3)	ND(11.3)	ND(11.3)	--	--	--	--	--	--	--	--
	EP-9	09/07/18	*ND(10)*	ND(10)	*ND(20)*	ND(10)	ND(10)	ND(10)	ND(10)	--	--	--	--	--	--	--	--
		04/29/19	*ND(50)*	ND(50)	*ND(100)*	ND(50)	ND(50)	ND(50)	ND(50)	--	--	--	--	--	--	--	--
		11/20/19	--	ND(0.5)	ND(0.5)	ND(0.5)	0.62	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		09/17/20	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	--	--	--	--	--
		12/21/20	*ND(9.75)*	ND(9.75)	*ND(19.5)*	ND(9.75)	ND(9.75) UJ	ND(9.75)	ND(9.75)	--	--	--	--	--	--	--	--
	Selected Screening Levels		0.027	122	1	170	5,761	117	NA	0.0011	NA	NA	NA	NA	0.780	NA	NA

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Aldrin (ug/L)	alpha-BHC (ug/L)	beta-BHC (ug/L)	delta-BHC (ug/L)	Lindane (ug/L)	Chlordane (ug/L)	4,4'-DDD (ug/L)	4,4'-DDE (ug/L)	2,4-DDE (ug/L)	4,4'-DDT (ug/L)	Dieldrin (ug/L)	Endosulfan I (ug/L)	Endosulfan II (ug/L)	Endosulfan Sulfate (ug/L)	Endrin (ug/L)	Endrin Aldehyde (ug/L)	Heptachlor (ug/L)	Heptachlor Epoxide (ug/L)	Methyoxy-chlor (ug/L)	Toxaphene (ug/L)
Land Treatment Unit	MW-1	09/20/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/13/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/06/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		08/12/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/22/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW-2	09/20/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/13/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/06/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		08/13/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/18/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW-4	09/21/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/13/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/06/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		08/13/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/18/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW-5	09/11/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/17/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/06/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		08/14/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	SMW-2	09/11/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/18/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		08/22/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/19/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	SMW-4	09/11/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/12/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/06/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		08/13/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/20/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Evaporation Ponds	EP-2	09/06/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		04/30/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		11/21/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/16/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/21/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EP-3	09/06/18	*ND(0.75)*	*ND(0.75)*	*ND(0.5)*	ND(0.75)	*ND(0.75)*	*ND(10)*	*ND(0.5)*	--	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.75)	ND(0.5)	ND(0.75)	*ND(0.75)*	*ND(0.5)*	ND(0.8)	*ND(10)*
		04/30/19	*ND(5)*	*ND(5)*	*ND(5)*	ND(5)	*ND(5)*	*ND(50)*	*ND(5)*	*ND(5)*	--	*ND(6.25)*	*ND(5)*	ND(5)	ND(5)	ND(5)	*ND(6.25)*	ND(5)	*ND(5)*	*ND(5)*	ND(6.25)	*ND(50)*
		11/20/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		11/21/19	*ND(0.4)*	*ND(0.4)*	*ND(0.4)*	ND(0.4)	ND(0.4)	*ND(4)*	*ND(0.4)*	ND(0.4)	--	ND(0.5)	*ND(0.4)*	ND(0.4)	ND(0.4)	ND(0.4)	ND(0.5)	ND(0.4)	*ND(0.4)*	*ND(0.4)*	ND(0.5)	*ND(4)*
		09/16/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/21/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EP-4	09/06/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		04/30/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/21/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EP-5	09/06/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		04/30/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/21/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EP-6	09/07/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		04/29/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/21/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EP-7	09/07/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		04/29/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		11/20/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/21/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EP-8	09/07/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		04/29/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		11/20/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/22/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EP-9	09/07/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		04/29/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		11/20/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/21/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Selected Screening Levels		0.002	0.069	0.243	NA	0.415	0.448	0.317	0.462	0.462	2.29	0.018	98.7	98.7	NA	2.23	NA	0.0221	0.2	40	0.158

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	1,2,4-Trichloro-benzene (ug/L)	1,2-Dichloro-benzene (ug/L)	1,3-Dichloro-benzene (ug/L)	1,4-Dichloro-benzene (ug/L)	1,4-Dioxane (ug/L)	1-Methylnaphthalene (ug/L)	2,4,5-Trichlorophenol (ug/L)	2,4,6-Trichlorophenol (ug/L)	2,4-Dichlorophenol (ug/L)	2,4-Dimethylphenol (ug/L)
Evaporation Ponds	EP-11	09/07/18	*ND(100)*	ND(100)	ND(100)	*ND(100)*	--	*ND(100)*	ND(100)	*ND(100)*	*ND(200)*	ND(100)
		04/29/19	ND(10)	ND(10)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(20)	ND(10)
		12/22/20	ND(20.9) UJ	ND(20.9)	ND(20.9)	ND(20.9)	--	--	ND(20.9) UJ	*ND(20.9) UJ*	ND(20.9) UJ	ND(20.9)
	EP-12A	09/07/18	ND(50)	ND(50)	ND(50)	ND(50)	--	*ND(50)*	ND(50)	*ND(50)*	*ND(100)*	ND(50)
		11/21/19	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	**5.3**	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	12
		12/22/20	ND(11.5) UJ	ND(11.5)	ND(11.5)	ND(11.5)	--	--	ND(11.5) UJ	ND(11.5) UJ	ND(11.5) UJ	ND(11.5)
	EP-12B	09/07/18	ND(50)	ND(50)	ND(50)	ND(50)	--	*ND(50)*	ND(50)	*ND(50)*	*ND(100)*	ND(50)
		04/29/19	ND(50)	ND(50)	ND(50)	ND(50)	--	*ND(50)*	ND(50)	*ND(50)*	*ND(100)*	ND(50)
		11/21/19	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	**6.9**	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		09/18/20	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ
		12/22/20	ND(23.3) UJ	ND(23.3)	ND(23.3)	ND(23.3)	--	--	ND(23.3) UJ	*ND(23.3) UJ*	ND(23.3) UJ	ND(23.3)
Western Boundary	BW-4B	03/10/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	BW-5B	10/16/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/05/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	0.46 J	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	BW-5C	10/16/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	4.5	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/05/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	**5**	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
Deep Wells	OW-01	03/09/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	--	--	--	--	ND(1) UJ	--	--	--	--	--
	OW-10	03/04/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	3.4	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	--	--	--	--	0.58 J	--	--	--	--	--
	OW-13	03/02/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/17/20	--	--	--	--	ND(1) UJ	--	--	--	--	--
	PW-2	09/10/14	ND(10)	ND(10)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(20)	ND(10)
		09/18/17	ND(10)	ND(10)	ND(10)	ND(10)	--	ND(10)	ND(10)	ND(10)	ND(20)	ND(10)
		09/21/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/28/20	ND(11.4)	ND(11.4)	ND(11.4)	ND(11.4)	--	--	ND(11.4)	ND(11.4)	ND(11.4)	ND(11.4)
	PW-3	08/28/19	ND (10)	ND (10)	ND (10)	ND (10)	--	ND (10)	ND (10)	ND (10)	ND (20)	ND (10)
		09/21/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/28/20	ND(10.7)	ND(10.7)	ND(10.7)	ND(10.7)	--	--	ND(10.7)	ND(10.7)	ND(10.7)	ND(10.7)
	PW-4	08/27/19	ND (10)	ND (10)	ND (10)	ND (10)	--	ND (10)	ND (10)	ND (10)	ND (20)	ND (10)
		09/21/20	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/28/20	ND(9.3)	ND(9.3)	ND(9.3)	ND(9.3)	--	--	ND(9.3)	ND(9.3)	ND(9.3)	ND(9.3)
	Selected Screening Levels		70	600	NA	75	4.59	11.38	1,166	11.9	45.3	354

Notes:
-- = Not Measured
BHC = benzene hexachloride
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
NA = Not Applicable
ND(x) = Not detected, where x = the reporting limit
NS = Not sampled
NS - Dry = Not sampled due to dry well
NS - H2S = Not sampled due to presense of Hydrogen Sulfide
NS - RW = Not sampled due to recovery well in place
NS - SPH = Not sampled due to presense of Separate Phase Hydrocarbons
Q = Quarter
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the selected screening levels.
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
J = Estimated concentration
J- = Estimated concentration, possibly biased low
JB = Estimated concentration due to blank contamination
R = Rejected, Data not usable
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	2,4-Dinitrophenol (ug/L)	2,4-Dinitrotoluene (ug/L)	2,6-Dinitrotoluene (ug/L)	2-Chloronaphthalene (ug/L)	2-Chlorophenol (ug/L)	2-Methylnaphthalene (ug/L)	2-Methylphenol (ug/L)	2-Nitroaniline (ug/L)	2-Nitrophenol (ug/L)	3,3'-Dichlorobenzidine (ug/L)
Evaporation Ponds	EP-11	09/07/18	*ND(200)*	*ND(100)*	*ND(100)*	ND(100)	*ND(100)*	*ND(100)*	ND(100)	ND(100)	ND(100)	*ND(100)*
		04/29/19	ND(20)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*
		12/22/20	*ND(62.6)*	*ND(20.9) UJ*	*ND(20.9) UJ*	ND(20.9) UJ	ND(20.9)	--	ND(20.9)	ND(20.9)	ND(20.9) UJ	*ND(20.9)*
	EP-12A	09/07/18	*ND(100)*	*ND(50)*	*ND(50)*	ND(50)	ND(50)	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*
		11/21/19	ND(2.5)	*ND(2.5)*	*ND(1)*	ND(2.5)	ND(2.5)	ND(2.5)	90	ND(2.5)	ND(2.5)	*ND(2.5)*
		12/22/20	ND(34.6)	*ND(11.5) UJ*	*ND(11.5) UJ*	ND(11.5) UJ	ND(11.5)	--	ND(11.5)	ND(11.5)	ND(11.5) UJ	*ND(11.5)*
	EP-12B	09/07/18	*ND(100)*	*ND(50)*	*ND(50)*	ND(50)	ND(50)	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*
		04/29/19	*ND(100)*	*ND(50)*	*ND(50)*	ND(50)	ND(50)	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*
		11/21/19	ND(2.5)	*ND(2.5)*	*ND(1)*	ND(2.5)	ND(2.5)	ND(2.5)	94	ND(2.5)	5.6	*ND(2.5)*
		09/18/20	ND(2.3) UJ	ND(2.3) UJ	*ND(0.91) UJ*	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ	*ND(2.3) UJ*
		12/22/20	*ND(70)*	*ND(23.3) UJ*	*ND(23.3) UJ*	ND(23.3) UJ	ND(23.3)	--	ND(23.3)	ND(23.3)	ND(23.3) UJ	*ND(23.3)*
Western Boundary	BW-4B	03/10/20	ND(0.5)	ND(0.2)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	BW-5B	10/16/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/05/20	ND(0.5)	ND(0.2)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	BW-5C	10/16/19	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/05/20	ND(0.5)	ND(0.2)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
Deep Wells	OW-01	03/09/20	ND(0.5)	ND(0.2)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	--	--	--	--	--	--	--	--	--	--
	OW-10	03/04/20	ND(0.5)	ND(0.2)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	--	--	--	--	--	--	--	--	--	--
	OW-13	03/02/20	ND(0.5)	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/17/20	--	--	--	--	--	--	--	--	--	--
	PW-2	09/10/14	ND(20)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(20)	ND(10)	ND(10)	*ND(10)*
		09/18/17	ND(20)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*
		09/21/20	ND(0.51)	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/28/20	ND(34.2)	*ND(11.4)*	*ND(11.4)*	ND(11.4)	ND(11.4)	--	ND(11.4)	ND(11.4)	ND(11.4)	*ND(11.4)*
	PW-3	08/28/19	ND (20)	*ND (10)*	*ND (10)*	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	*ND (10)*
		09/21/20	ND(0.51)	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/28/20	ND(32.1)	*ND(10.7)*	*ND(10.7)*	ND(10.7)	ND(10.7)	--	ND(10.7)	ND(10.7)	ND(10.7)	*ND(10.7)*
	PW-4	08/27/19	ND (20)	*ND (10)*	*ND (10)*	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	*ND (10)*
		09/21/20	ND(0.52)	ND(0.52)	ND(0.21)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/28/20	ND(27.9)	*ND(9.3)*	*ND(9.3)*	ND(9.3)	ND(9.3)	--	ND(9.3)	ND(9.3)	ND(9.3)	*ND(9.3)*
	Selected Screening Levels		38.7	2.38	0.485	733	91	35.1	NA	NA	NA	1.25

Notes:
-- = Not Measured
BHC = benzene hexachloride
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
NA = Not Applicable
ND(x) = Not detected, where x = the reporting limit
NS = Not sampled
NS - Dry = Not sampled due to dry well
NS - H2S = Not sampled due to presense of Hydrogen Sulfide
NS - RW = Not sampled due to recovery well in place
NS - SPH = Not sampled due to presense of Separate Phase Hydrocarbons
Q = Quarter
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the selected screening levels.
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
J = Estimated concentration
J- = Estimated concentration, possibly biased low
JB = Estimated concentration due to blank contamination
R = Rejected, Data not usable
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	3,4-Methylphenol (ug/L)	3-Nitroaniline (ug/L)	2-Methyl-4,6-dinitrophenol (ug/L)	4-Bromophenylphenylether (ug/L)	4-Chloro-3-Methylphenol (ug/L)	4-Chloroaniline (ug/L)	4-Chlorophenyl-phenylether (ug/L)	4-Nitroaniline (ug/L)	4-Nitrophenol (ug/L)	Acenaphthene (ug/L)
Evaporation Ponds	EP-11	09/07/18	ND(100)	ND(100)	ND(200)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)
		04/29/19	ND(10)	ND(10)	ND(20)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
		12/22/20	--	ND(20.9)	ND(20.9)	ND(20.9) UJ	ND(20.9)	ND(20.9)	ND(20.9) UJ	ND(20.9)	ND(20.9)	ND(20.9) UJ
	EP-12A	09/07/18	ND(50)	ND(50)	ND(100)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)
		11/21/19	93	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
		12/22/20	--	ND(11.5)	ND(11.5)	ND(11.5) UJ	ND(11.5)	ND(11.5)	ND(11.5) UJ	ND(11.5)	ND(11.5)	ND(11.5) UJ
	EP-12B	09/07/18	41	ND(50)	ND(100)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)
		04/29/19	ND(50)	ND(50)	ND(100)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)
		11/21/19	160	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(2.5)	ND(2.5)	6.4	ND(2.5)
		09/18/20	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ
		12/22/20	--	ND(23.3)	ND(23.3)	ND(23.3) UJ	ND(23.3)	ND(23.3)	ND(23.3) UJ	ND(23.3)	ND(23.3)	ND(23.3) UJ
Western Boundary	BW-4B	03/10/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	BW-5B	10/16/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/05/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	BW-5C	10/16/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		03/05/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
Deep Wells	OW-01	03/09/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	--	--	--	--	--	--	--	--	--	--
	OW-10	03/04/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	--	--	--	--	--	--	--	--	--	--
	OW-13	03/02/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/17/20	--	--	--	--	--	--	--	--	--	--
	PW-2	09/10/14	ND(10)	ND(10)	ND(20)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
		09/18/17	ND(10)	ND(10)	ND(20)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
		09/21/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/28/20	--	ND(11.4)	ND(11.4)	ND(11.4)	ND(11.4)	ND(11.4)	ND(11.4)	ND(11.4)	ND(11.4)	ND(11.4)
	PW-3	08/28/19	4.1	ND (10)	ND (20)	ND (10)	ND (10)	ND (10)	110	ND (10)	ND (10)	ND (10)
		09/21/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/28/20	--	ND(10.7)	ND(10.7)	ND(10.7)	ND(10.7)	ND(10.7)	ND(10.7)	ND(10.7)	ND(10.7)	ND(10.7)
	PW-4	08/27/19	ND (10)	ND (10)	ND (20)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
		09/21/20	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/28/20	--	ND(9.3)	ND(9.3)	ND(9.3)	ND(9.3)	ND(9.3)	ND(9.3)	ND(9.3)	ND(9.3)	ND(9.3)
	Selected Screening Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	535

Notes:
-- = Not Measured
BHC = benzene hexachloride
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
NA = Not Applicable
ND(x) = Not detected, where x = the reporting limit
NS = Not sampled
NS - Dry = Not sampled due to dry well
NS - H2S = Not sampled due to presense of Hydrogen Sulfide
NS - RW = Not sampled due to recovery well in place
NS - SPH = Not sampled due to presense of Separate Phase Hydrocarbons
Q = Quarter
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the selected screening levels.
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
J = Estimated concentration
J- = Estimated concentration, possibly biased low
JB = Estimated concentration due to blank contamination
R = Rejected, Data not usable
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Acenaphthylene (ug/L)	Aniline (ug/L)	Anthracene (ug/L)	Azobenzene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluor-anthene (ug/L)	Benzo(ghi)perylene (ug/L)	Benzo(k)fluor-anthene (ug/L)	Benzoic Acid (ug/L)	Benzyl Alcohol (ug/L)
Evaporation Ponds	EP-11	09/07/18	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	*ND(100)*	*ND(100)*	ND(100)	*ND(100)*	72	ND(100)
		04/29/19	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(20)	ND(10)
		12/22/20	ND(20.9) UJ	ND(20.9) R	ND(20.9)	ND(20.9)	ND(20.9)	*ND(20.9)*	*ND(20.9)*	ND(20.9)	*ND(20.9)*	ND(62.6) UJ	ND(20.9)
	EP-12A	09/07/18	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	*ND(50)*	ND(100)	ND(50)
		11/21/19	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(2.5)	ND(2.5)	ND(0.5)	ND(2.5)
		12/22/20	ND(11.5) UJ	ND(11.5) R	ND(11.5)	ND(11.5)	ND(11.5)	*ND(11.5)*	*ND(11.5)*	ND(11.5)	*ND(11.5)*	ND(34.6) UJ	ND(11.5)
	EP-12B	09/07/18	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	*ND(50)*	32	ND(50)
		04/29/19	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	*ND(50)*	ND(100)	ND(50)
		11/21/19	ND(2.5)	ND(2.5)	ND(2.5)	--	ND(0.5)	*ND(0.5)*	*ND(0.5)*	ND(2.5)	ND(2.5)	ND(0.5)	ND(2.5)
		09/18/20	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ	--	ND(0.46) UJ	*ND(0.46) UJ*	*ND(0.46) UJ*	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ
		12/22/20	ND(23.3) UJ	ND(23.3) R	ND(23.3)	ND(23.3)	ND(23.3)	*ND(23.3)*	*ND(23.3)*	ND(23.3)	*ND(23.3)*	ND(70) UJ	ND(23.3)
Western Boundary	BW-4B	03/10/20	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	BW-5B	10/16/19	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	*ND(0.5)*	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)
		03/05/20	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	BW-5C	10/16/19	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)
		03/05/20	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
Deep Wells	OW-01	03/09/20	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	--	--	--	--	--	--	--	--	--	--	--
	OW-10	03/04/20	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	--	--	--	--	--	--	--	--	--	--	--
	OW-13	03/02/20	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
		09/17/20	--	--	--	--	--	--	--	--	--	--	--
	PW-2	09/10/14	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	ND(20)	ND(10)
		09/18/17	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	10	ND(10)
		09/21/20	ND(0.51)	ND(0.51)	ND(0.51)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/28/20	ND(11.4)	ND(11.4)	ND(11.4)	ND(11.4)	ND(11.4)	*ND(11.4)*	*ND(11.4)*	ND(11.4)	*ND(11.4)*	ND(34.2)	ND(11.4)
	PW-3	08/28/19	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	*ND (10)*	*ND (10)*	ND (10)	*ND (10)*	ND (20)	ND (10)
		09/21/20	ND(0.51)	ND(0.51)	ND(0.51)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)
		12/28/20	ND(10.7)	ND(10.7)	ND(10.7)	ND(10.7)	ND(10.7)	*ND(10.7)*	*ND(10.7)*	ND(10.7)	*ND(10.7)*	ND(32.1)	ND(10.7)
	PW-4	08/27/19	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	*ND (10)*	*ND (10)*	ND (10)	*ND (10)*	ND (20)	ND (10)
		09/21/20	ND(0.52)	ND(0.52)	ND(0.52)	--	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)
		12/28/20	ND(9.3)	ND(9.3)	ND(9.3)	ND(9.3)	ND(9.3)	*ND(9.3)*	*ND(9.3)*	ND(9.3)	*ND(9.3)*	ND(27.9)	ND(9.3)
	Selected Screening Levels		NA	NA	1,721	NA	NA	0.2	0.34	NA	3.43	NA	NA

Notes:
-- = Not Measured
BHC = benzene hexachloride
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
NA = Not Applicable
ND(x) = Not detected, where x = the reporting limit
NS = Not sampled
NS - Dry = Not sampled due to dry well
NS - H2S = Not sampled due to presense of Hydrogen Sulfide
NS - RW = Not sampled due to recovery well in place
NS - SPH = Not sampled due to presense of Separate Phase Hydrocarbons
Q = Quarter
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the selected screening levels.
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
J = Estimated concentration
J- = Estimated concentration, possibly biased low
JB = Estimated concentration due to blank contamination
R = Rejected, Data not usable
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Bis(2chloro ethoxy)methane (ug/L)	Bis(2-chloro ethyl)ether (ug/L)	Bis(2chloro isopropyl)ether (ug/L)	Bis(2-ethyl hexyl)phthalate (ug/L)	Benzyl Butyl Phthalate (ug/L)	Carbazole (ug/L)	Chrysene (ug/L)	Dibenz(a,h)anthracene (ug/L)	Dibenzofuran (ug/L)	Diethylphthalate (ug/L)	Dimethyl Phthalate (ug/L)
Evaporation Ponds	EP-11	09/07/18	ND(100)	*ND(100)*	*ND(100)*	*ND(100)*	ND(100)	ND(100)	*ND(100)*	*ND(100)*	ND(100)	ND(100)	ND(100)
		04/29/19	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		12/22/20	ND(20.9)	*ND(20.9)*	*ND(20.9)*	ND(20.9)	ND(20.9)	ND(20.9)	ND(20.9)	*ND(20.9)*	ND(20.9) UJ	ND(20.9)	ND(20.9) UJ
	EP-12A	09/07/18	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)
		11/21/19	ND(2.5)	--	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(0.125)*	ND(2.5)	ND(2.5)	ND(2.5)
		12/22/20	ND(11.5)	*ND(11.5)*	*ND(11.5)*	ND(11.5)	ND(11.5)	ND(11.5)	ND(11.5)	*ND(11.5)*	ND(11.5) UJ	ND(11.5)	ND(11.5) UJ
	EP-12B	09/07/18	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)
		04/29/19	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)
		11/21/19	ND(2.5)	--	ND(2.5)	27	ND(2.5)	ND(2.5)	ND(2.5)	*ND(0.125)*	ND(2.5)	ND(2.5)	ND(2.5)
		09/18/20	ND(2.3) UJ	*ND(2.3) UJ*	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ	*ND(0.14) UJ*	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ
		12/22/20	ND(23.3)	*ND(23.3)*	*ND(23.3)*	ND(23.3)	ND(23.3)	ND(23.3)	ND(23.3)	*ND(23.3)*	ND(23.3) UJ	ND(23.3)	ND(23.3) UJ
Western Boundary	BW-4B	03/10/20	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025) UJ	ND(0.5)	ND(0.5)	ND(0.5)
	BW-5B	10/16/19	ND(0.5)	--	ND(0.5)	3.9	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		03/05/20	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
	BW-5C	10/16/19	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		03/05/20	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
Deep Wells	OW-01	03/09/20	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025) UJ	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	--	--	--	--	--	--	--	--	--	--	--
	OW-10	03/04/20	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		09/20/20	--	--	--	--	--	--	--	--	--	--	--
	OW-13	03/02/20	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.025)	ND(0.5)	ND(0.5)	ND(0.5)
		09/17/20	--	--	--	--	--	--	--	--	--	--	--
	PW-2	09/10/14	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		09/18/17	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)	ND(10)
		09/21/20	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.031)	ND(0.51)	ND(0.51)	ND(0.51)
		12/28/20	ND(11.4)	*ND(11.4)*	*ND(11.4)*	ND(11.4)	ND(11.4)	ND(11.4)	ND(11.4)	*ND(11.4) UJ*	ND(11.4)	ND(11.4)	ND(11.4)
	PW-3	08/28/19	ND (10)	*ND (10)*	*ND (10)*	ND (10)	ND (10)	ND (10)	ND (10)	*ND (10)*	ND (10)	ND (10)	ND (10)
		09/21/20	ND(0.51)	*ND(0.51)*	ND(0.51)	0.41 J	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.031)	ND(0.51)	ND(0.51)	ND(0.51)
		12/28/20	ND(10.7)	*ND(10.7)*	*ND(10.7)*	ND(10.7)	ND(10.7)	ND(10.7)	ND(10.7)	*ND(10.7) UJ*	ND(10.7)	ND(10.7)	ND(10.7)
	PW-4	08/27/19	ND (10)	*ND (10)*	*ND (10)*	ND (10)	ND (10)	ND (10)	ND (10)	*ND (10)*	ND (10)	ND (10)	ND (10)
		09/21/20	ND(0.52)	*ND(0.52)*	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.031)	ND(0.52)	ND(0.52)	ND(0.52)
		12/28/20	ND(9.3)	*ND(9.3)*	ND(9.3)	ND(9.3)	ND(9.3)	ND(9.3)	ND(9.3)	*ND(9.3) UJ*	ND(9.3)	ND(9.3)	ND(9.3)
	Selected Screening Levels		NA	0.137	9.81	55.64	NA	NA	34.3	0.034	NA	14,801	612

Notes:
-- = Not Measured
BHC = benzene hexachloride
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
NA = Not Applicable
ND(x) = Not detected, where x = the reporting limit
NS = Not sampled
NS - Dry = Not sampled due to dry well
NS - H2S = Not sampled due to presense of Hydrogen Sulfide
NS - RW = Not sampled due to recovery well in place
NS - SPH = Not sampled due to presense of Separate Phase Hydrocarbons
Q = Quarter
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the selected screening levels.
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
J = Estimated concentration
J- = Estimated concentration, possibly biased low
JB = Estimated concentration due to blank contamination
R = Rejected, Data not usable
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Di-n-butyl-phthalate (ug/L)	Di-n-octyl-phthalate (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Hexachloro-benzene (ug/L)	Hexachloro-butadiene (ug/L)	Hexachloro-cyclopentadiene (ug/L)	Hexachloro-ethane (ug/L)	Indeno-(1,2,3-cd) pyrene (ug/L)	Isophorone (ug/L)	Naphthalene (ug/L)	Nitrobenzene (ug/L)	N-Nitroso-dimethylamine (ug/L)
Evaporation Ponds	EP-11	09/07/18	ND(100)	ND(100)	ND(100)	ND(100)	*ND(100)*	ND(100)	*ND(100)*	*ND(100)*	ND(100)	ND(100)	*ND(100)*	*ND(100)*	*ND(100)*
		04/29/19	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*
		12/22/20	ND(20.9)	ND(20.9)	ND(20.9) UJ	ND(20.9) UJ	*ND(20.9) UJ*	--	*ND(41.7) UJ*	*ND(20.9)*	ND(20.9)	ND(20.9)	ND(20.9)	*ND(20.9)*	*ND(20.9)*
	EP-12A	09/07/18	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	*ND(50)*	*ND(50)*	*ND(50)*
		11/21/19	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(1)	ND(2.5)	ND(2.5)	*ND(2.5)*	--
		12/22/20	ND(11.5)	ND(11.5)	ND(11.5) UJ	ND(11.5) UJ	*ND(11.5) UJ*	--	*ND(23.1) UJ*	*ND(11.5)*	ND(11.5)	ND(11.5)	ND(11.5)	*ND(11.5)*	*ND(11.5)*
	EP-12B	09/07/18	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	*ND(50)*	*ND(50)*	*ND(50)*
		04/29/19	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	*ND(50)*	*ND(50)*	*ND(50)*
		11/21/19	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	*ND(2.5)*	ND(2.5)	*ND(2.5)*	ND(2.5)	ND(1)	ND(2.5)	ND(2.5)	*ND(2.5)*	--
		09/18/20	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ	*ND(2.3) UJ*	ND(2.3) UJ	*ND(2.3) UJ*	ND(2.3) UJ	ND(0.91) UJ	ND(2.3) UJ	ND(2.3) UJ	*ND(2.3) UJ*	*ND(2.3) UJ*
		12/22/20	ND(23.3)	ND(23.3)	ND(23.3) UJ	ND(23.3) UJ	*ND(23.3) UJ*	--	*ND(46.6) UJ*	*ND(23.3)*	ND(23.3)	ND(23.3)	ND(23.3)	*ND(23.3)*	*ND(23.3)*
Western Boundary	BW-4B	03/10/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
	BW-5B	10/16/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		03/05/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
	BW-5C	10/16/19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		03/05/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
Deep Wells	OW-01	03/09/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		09/20/20	--	--	--	--	--	--	--	--	--	--	--	--	--
	OW-10	03/04/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		09/20/20	--	--	--	--	--	--	--	--	--	--	--	--	--
	OW-13	03/02/20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.2)	ND(0.5)	ND(0.5)	ND(0.5)	--
		09/17/20	--	--	--	--	--	--	--	--	--	--	--	--	--
	PW-2	09/10/14	ND(10)	ND(20)	ND(10)	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*
		09/18/17	ND(10)	5.1	ND(10)	ND(10)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*	*ND(10)*
		09/21/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*
		12/28/20	ND(11.4)	ND(11.4)	ND(11.4)	ND(11.4)	*ND(11.4)*	--	*ND(22.8) UJ*	*ND(11.4)*	ND(11.4) UJ	ND(11.4)	ND(11.4)	*ND(11.4)*	*ND(11.4)*
	PW-3	08/28/19	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	*ND (10)*	*ND (10)*	ND (10)	ND (10)	ND (10)	*ND (10)*	*ND (10)*
		09/21/20	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.2)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*
		12/28/20	ND(10.7)	ND(10.7)	ND(10.7)	ND(10.7)	*ND(10.7)*	--	*ND(21.4) UJ*	*ND(10.7)*	ND(10.7) UJ	ND(10.7)	ND(10.7)	*ND(10.7)*	*ND(10.7)*
	PW-4	08/27/19	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)		*ND (10)*	ND (10)	ND (10)	ND (10)	*ND (10)*	*ND (10)*
		09/21/20	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	*ND(0.52)*	ND(0.52)	*ND(0.52)*	ND(0.52)	ND(0.21)	ND(0.52)	ND(0.52)	ND(0.52)	*ND(0.52)*
		12/28/20	ND(9.3)	ND(9.3)	ND(9.3)	ND(9.3)	*ND(9.3)*	--	*ND(18.6) UJ*	*ND(9.3)*	ND(9.3) UJ	ND(9.3)	ND(9.3)	*ND(9.3)*	*ND(9.3)*
	Selected Screening Levels		885	NA	802	288	0.0976	NA	0.41	3.28	NA	781	30	1.4	0.0049

Notes:
-- = Not Measured
BHC = benzene hexachloride
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
NA = Not Applicable
ND(x) = Not detected, where x = the reporting limit
NS = Not sampled
NS - Dry = Not sampled due to dry well
NS - H2S = Not sampled due to presense of Hydrogen Sulfide
NS - RW = Not sampled due to recovery well in place
NS - SPH = Not sampled due to presense of Separate Phase Hydrocarbons
Q = Quarter
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the selected screening levels.
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
J = Estimated concentration
J- = Estimated concentration, possibly biased low
JB = Estimated concentration due to blank contamination
R = Rejected, Data not usable
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	N-Nitrosodi-n-propylamine (ug/L)	N-Nitrosodiphenyl-amine (ug/L)	Pentachloro-phenol (ug/L)	Phenanthrene (ug/L)	Phenol (ug/L)	Pyrene (ug/L)	Pyridine (ug/L)	Benzidine (ug/L)	2,3,4,6-Tetrachlorophenol (ug/L)	2,3,5,6-Tetrachlorophenol (ug/L)	Dibenz(a,h)acridine (ug/L)	7,12-Dimethyl benz(a)anthracene (ug/L)	1,2-Diphenyl hydrazine (ug/L)	Quinoline (ug/L)	Thiophenol (Benzenethiol) (ug/L)
Evaporation Ponds	EP-11	09/07/18	*ND(100)*	ND(100)	*ND(200)*	ND(100)	ND(100)	ND(100)	ND(100)	--	--	--	--	--	--	--	--
		04/29/19	*ND(10)*	ND(10)	*ND(20)*	ND(10)	ND(10)	ND(10)	ND(10)	--	--	--	--	--	--	--	--
		12/22/20	*ND(20.9)*	ND(20.9)	*ND(41.7)*	ND(20.9)	ND(20.9)	ND(20.9)	ND(20.9)	--	--	--	--	--	--	--	--
	EP-12A	09/07/18	*ND(50)*	ND(50)	*ND(100)*	ND(50)	ND(50)	ND(50)	ND(50)	--	--	--	--	--	--	--	--
		11/21/19	--	ND(2.5)	*ND(2.5)*	ND(2.5)	220	ND(2.5)	ND(2.5)	--	--	--	--	--	--	--	--
		12/22/20	*ND(11.5)*	ND(11.5)	*ND(23.1)*	ND(11.5)	ND(11.5)	ND(11.5)	ND(11.5)	--	--	--	--	--	--	--	--
	EP-12B	09/07/18	*ND(50)*	ND(50)	*ND(100)*	ND(50)	37	ND(50)	ND(50)	--	--	--	--	--	--	--	--
		04/29/19	*ND(50)*	ND(50)	*ND(100)*	ND(50)	ND(50)	ND(50)	ND(50)	--	--	--	--	--	--	--	--
		11/21/19	--	ND(2.5)	*ND(2.5)*	ND(2.5)	560	ND(2.5)	ND(2.5)	--	--	--	--	--	--	--	--
		09/18/20	*ND(2.3) UJ*	ND(2.3) UJ	*ND(2.3) UJ*	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ	ND(2.3) UJ	*ND(2.3) UJ*	ND(2.3) UJ	ND(2.3) UJ	--	--	--	--	--
		12/22/20	*ND(23.3)*	ND(23.3)	*ND(46.6)*	ND(23.3)	ND(23.3)	ND(23.3)	ND(23.3)	--	--	--	--	--	--	--	--
Western Boundary	BW-4B	03/10/20	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
	BW-5B	10/16/19	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		03/05/20	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
	BW-5C	10/16/19	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		03/05/20	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
Deep Wells	OW-01	03/09/20	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		09/20/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	OW-10	03/04/20	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		09/20/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	OW-13	03/02/20	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	PW-2	09/10/14	*ND(10)*	ND(10)	*ND(20)*	ND(10)	ND(10)	ND(10)	ND(10)	--	--	--	--	--	--	--	--
		09/18/17	*ND(10)*	ND(10)	*ND(20)*	ND(10)	ND(10)	ND(10)	ND(10)	--	--	--	--	--	--	--	--
		09/21/20	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	--	--	--	--	--
		12/28/20	*ND(11.4)*	ND(11.4)	*ND(22.8)*	ND(11.4)	ND(11.4)	ND(11.4)	ND(11.4)	--	--	--	--	--	--	--	--
	PW-3	08/28/19	*ND (10)*	ND (10)	*ND (20)*	ND (10)	ND (10)	ND (10)	ND (10)	--	--	--	--	--	--	--	--
		09/21/20	*ND(0.51)*	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	ND(0.51)	*ND(0.51)*	ND(0.51)	ND(0.51)	--	--	--	--	--
		12/28/20	*ND(10.7)*	ND(10.7)	*ND(21.4)*	ND(10.7)	ND(10.7)	ND(10.7)	ND(10.7)	--	--	--	--	--	--	--	--
	PW-4	08/27/19	*ND (10)*	ND (10)	*ND (20)*	ND (10)	ND (10)	ND (10)	ND (10)	--	--	--	--	--	--	--	--
		09/21/20	*ND(0.52)*	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	ND(0.52)	*ND(0.52)*	ND(0.52)	ND(0.52)	--	--	--	--	--
		12/28/20	*ND(9.3)*	ND(9.3)	*ND(18.6)*	ND(9.3)	ND(9.3)	ND(9.3)	ND(9.3)	--	--	--	--	--	--	--	--
	Selected Screening Levels		0.027	122	1	170	5,761	117	NA	0.0011	NA	NA	NA	NA	0.780	NA	NA

Notes:
-- = Not Measured
BHC = benzene hexachloride
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
NA = Not Applicable
ND(x) = Not detected, where x = the reporting limit
NS = Not sampled
NS - Dry = Not sampled due to dry well
NS - H2S = Not sampled due to presense of Hydrogen Sulfide
NS - RW = Not sampled due to recovery well in place
NS - SPH = Not sampled due to presense of Separate Phase Hydrocarbons
Q = Quarter
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the selected screening levels.
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
J = Estimated concentration
J- = Estimated concentration, possibly biased low
JB = Estimated concentration due to blank contamination
R = Rejected, Data not usable
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-3. SEMI-VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Aldrin (ug/L)	alpha-BHC (ug/L)	beta-BHC (ug/L)	delta-BHC (ug/L)	Lindane (ug/L)	Chlordane (ug/L)	4,4'-DDD (ug/L)	4,4'-DDE (ug/L)	2,4-DDE (ug/L)	4,4'-DDT (ug/L)	Dieldrin (ug/L)	Endosulfan I (ug/L)	Endosulfan II (ug/L)	Endosulfan Sulfate (ug/L)	Endrin (ug/L)	Endrin Aldehyde (ug/L)	Heptachlor (ug/L)	Heptachlor Epoxide (ug/L)	Methoxy-chlor (ug/L)	Toxaphene (ug/L)
Evaporation Ponds	EP-11	09/07/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		04/29/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/22/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EP-12A	09/07/18	*ND(0.75)*	*ND(0.75)*	*ND(0.5)*	ND(0.75)	*ND(0.75)*	*ND(10)*	*ND(0.5)*	--	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.75)	ND(0.5)	ND(0.75)	*ND(0.75)*	*ND(0.5)*	ND(0.8)	*ND(10)*
		11/21/19	*ND(1)*	*ND(1)*	*ND(1)*	ND(1)	*ND(1)*	*ND(10)*	*ND(1)*	*ND(1)*	--	ND(1.25)	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1.25)	ND(1)	*ND(1)*	*ND(1)*	ND(1.25)	*ND(10)*
		12/22/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EP-12B	09/07/18	*ND(0.75)*	*ND(0.75)*	*ND(0.5)*	ND(0.75)	*ND(0.75)*	*ND(10)*	*ND(0.5)*	--	*ND(0.5)*	ND(0.5)	*ND(0.5)*	ND(0.5)	ND(0.5)	ND(0.75)	ND(0.5)	ND(0.75)	*ND(0.75)*	*ND(0.5)*	ND(0.8)	*ND(10)*
		04/29/19	*ND(5)*	*ND(5)*	*ND(5)*	ND(5)	*ND(5)*	*ND(50)*	*ND(5)*	*ND(5)*	--	*ND(6.25)*	*ND(5)*	ND(5)	ND(5)	ND(5)	*ND(6.25)*	ND(5)	*ND(5)*	*ND(5)*	ND(6.25)	*ND(50)*
		11/21/19	*ND(0.45455)*	*ND(0.45455)*	*ND(0.45455)*	ND(0.45455)	*ND(0.45455)*	*ND(4.54545)*	*ND(0.45455)*	ND(0.45455)	--	ND(0.56818)	*ND(0.45455)*	ND(0.45455)	ND(0.45455)	ND(0.45455)	ND(0.56818)	ND(0.45455)	*ND(0.45455)*	*ND(0.45455)*	ND(0.56818)	*ND(4.54545)*
		09/18/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/22/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western Boundary	BW-4B	03/10/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	BW-5B	10/16/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		03/05/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	BW-5C	10/16/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		03/05/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Deep Wells	OW-01	03/09/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/20/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	OW-10	03/04/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/20/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	OW-13	03/02/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	PW-2	09/10/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/18/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/28/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	PW-3	08/28/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/28/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	PW-4	08/27/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/28/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Selected Screening Levels		0.002	0.069	0.243	NA	0.415	0.448	0.317	0.462	0.462	2.29	0.018	98.7	98.7	NA	2.23	NA	0.0221	0.2	40	0.158

Notes:
-- = Not Measured
BHC = benzene hexachloride
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
NA = Not Applicable
ND(x) = Not detected, where x = the reporting limit
NS = Not sampled
NS - Dry = Not sampled due to dry well
NS - H2S = Not sampled due to presense of Hydrogen Sulfide
NS - RW = Not sampled due to recovery well in place
NS - SPH = Not sampled due to presense of Separate Phase Hydrocarbons
Q = Quarter
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the selected screening levels.
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
J = Estimated concentration
J- = Estimated concentration, possibly biased low
JB = Estimated concentration due to blank contamination
R = Rejected, Data not usable
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-4. METALS (TOTAL) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Aluminum, Total (µg/L)	Antimony, Total (µg/L)	Arsenic, Total (µg/L)	Barium, Total (µg/L)	Beryllium, Total (µg/L)	Boron, Total (µg/L)	Cadmium, Total (µg/L)	Calcium, Total (µg/L)	Chromium, Total (µg/L)	Cobalt, Total (µg/L)	Copper, Total (µg/L)	Iron, Total (µg/L)	Lead, Total (µg/L)
Eastern Boundary	OW-14	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-29	10/14/19	420	ND(1)	ND(5)	74	ND(2)	550	ND(2)	--	ND(6)	*ND(6)*	ND(6)	320	0.12
		02/24/20	560	ND(1)	0.88 J	78	ND(2)	540	ND(2)	--	ND(6)	*ND(6)*	ND(6)	470	0.21 J
		09/17/20	110	ND(1)	0.63 J	75	*ND(10)*	510	*ND(10)*	--	ND(30)	*ND(30)*	ND(30)	260	0.052 J
		12/09/20	ND(200)	ND(2)	ND(1)	79.2	ND(3)	528	ND(5)	--	ND(10)	*ND(10)*	ND(20)	338	ND(1)
	OW-30	10/14/2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-50	10/15/19	150	ND(1)	2.6	54	ND(2)	360	ND(2)	--	ND(6)	*ND(6)*	ND(6)	49	ND(0.5)
		03/02/20	180	ND(1) UJ	2	55	ND(2)	360	ND(2)	--	ND(6)	*ND(6)*	ND(6)	60	0.096 J
		09/17/20	2100	ND(1)	2.7	130	*ND(10)*	350	*ND(10)*	--	28 J	*ND(30)*	ND(30)	820	0.92
		12/09/20	1250	ND(2)	1.78	91.4	ND(3)	353	ND(5)	--	ND(10)	*ND(10)*	ND(20)	502	ND(1)
	OW-52	10/15/19	450	ND(1)	0.83	30	ND(2)	350	ND(2)	--	ND(6)	*ND(6)*	ND(6)	200	0.057
		03/02/20	130	ND(1) UJ	0.7 J	30	ND(2)	360	ND(2)	--	ND(6)	*ND(6)*	ND(6)	91	ND(0.5)
		09/17/20	**51000**	ND(1)	3.1	350	*ND(10)*	360	*ND(10)*	--	**61**	**14 J**	ND(30)	**17000**	13
		12/09/20	ND(200)	ND(2)	ND(1)	29.3	ND(3)	322	ND(5)	--	ND(10)	*ND(10)*	ND(20)	ND(200)	ND(1)
	OW-53	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-54	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-55	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-56	10/15/19	4300	ND(5)	4.2	470	0.46	630	ND(2)	--	3.4	3.7	4.7	3100	2.1
		03/02/20	2300	ND(1) UJ	3.2	470	0.53 J	540	ND(2)	--	2.9 J	3.7 J	5.5 J	1900	2
		09/21/20	800	ND(1)	5.6	590	ND(2)	620	ND(2)	--	ND(6)	**6.8**	ND(6)	1300 J+	0.84
		12/23/20	4570 J	ND(2)	2.54	572	ND(3)	553	ND(5)	66800	ND(10)	*ND(10)*	29.8	4440 J	1.19
	OW-57	11/05/19	14000	ND(1)	4.7	**4700**	0.85	280	ND(2)	--	2.8	*ND(6)*	ND(6)	11000	8
		03/05/20	2800	ND(1)	4.3 J	**4200**	0.31 J	300	ND(2)	--	ND(6)	*ND(6)*	ND(6)	6300	1.5
		09/18/20	5400	ND(1)	4.1	**4000**	ND(2)	270	ND(2)	--	ND(6)	*ND(6)*	ND(6)	6300	2.3
		12/23/20	**24500 J**	ND(2)	3.01	**4740**	ND(3)	262	ND(5)	146000	12.8	*ND(10)*	21.1	**17400 J**	ND(1)
	OW-58	11/18/19	3200	0.43	3.3	**4500**	ND(2)	350	ND(2)	--	ND(6)	*ND(6)*	ND(6)	9900	1.6
		1Q2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		09/17/20	4900	ND(1)	3.2	**4500**	ND(2)	330	ND(2)	--	ND(6)	*ND(6)*	ND(6)	11000	2
		12/22/20	1680 J	ND(2)	2.84	**5000**	ND(3)	337	ND(5)	131000	ND(10)	*ND(10)*	ND(20)	8650	ND(1)
	OW-58A	4Q2019	NS	NS	NS	NS	NS	NS	NS						
		03/06/20	3700	ND(1)	4.9 J	730	ND(2)	470 J-	ND(2)	--	4.1 J-	*ND(6) UJ*	ND(6)	6700	6.4
		09/18/20	670	ND(1)	5.3	730	ND(2)	460	ND(2)	--	ND(6)	*ND(6)*	ND(6)	5400	1.6
		12/23/20	409 J	ND(2)	4.41	711	ND(3)	426	ND(5)	67700	ND(10)	*ND(10)*	ND(20)	4400 J	1.73
Tank Farm	OW-61	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-62	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-63	11/18/19	62	ND(1)	**11**	**4400**	ND(2)	350	ND(2)	--	ND(6)	*ND(6)*	ND(6)	6200	0.24
		03/04/20	280	ND(1)	9	**4400**	0.28 J	360	ND(2)	--	ND(6)	*ND(6)*	ND(6)	6800	0.36 J
		09/16/20	ND(100)	ND(1)	8.2	**4000**	*ND(10)*	300	*ND(10)*	--	ND(30)	*ND(30)*	ND(30)	5800	0.11 J
		12/11/20	ND(200)	ND(2)	8.59	**4370**	ND(3)	328	ND(5)	80900	ND(10)	*ND(10)*	ND(20)	6440	ND(1)
	OW-64	11/18/19	3500	ND(1)	3.7	290	ND(2)	2300	ND(2)	--	3.1	*ND(6)*	ND(6)	1100	1.1
		03/04/20	6500	ND(1)	4	410	0.4 J	1500	ND(2)	--	8.3	*ND(6)*	5.2 J	2200	1.8
		09/22/20	2300 J+	ND(1)	3.5	360	ND(2)	2400	ND(2)	--	2.3 J	*ND(6)*	ND(6)	960 J+	0.57 JB
		12/11/20	1060	ND(2)	2.51	323	ND(3)	1720	ND(5)	12100 JB	ND(10)	*ND(10)*	ND(20)	603	ND(1)
	OW-65	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-1	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-2	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-5	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-6	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Selected Screening Level			19,914	6	10	2,000	4	3,949	5	NA	50	5.98	790	13,822	15

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-4. METALS (TOTAL) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Magnesium, Total (µg/L)	Manganese, Total (µg/L)	Mercury, Total (µg/L)	Molybdenum, Total (µg/L)	Nickel, Total (µg/L)	Potassium, Total (µg/L)	Selenium, Total (µg/L)	Silver, Total (µg/L)	Sodium, Total (µg/L)	Thallium, Total (µg/L)	Uranium, Total (µg/L)	Vanadium, Total (µg/L)	Zinc, Total (µg/L)
Eastern Boundary	OW-14	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-29	10/14/19	--	300	ND(0.2)	ND(8)	23	--	ND(5)	ND(5)	--	ND(0.5)	--	--	ND(10)
		02/24/20	--	360	ND(0.2)	ND(8)	21	--	ND(1)	ND(5)	--	0.073 J	**56**	--	ND(10)
		09/17/20	--	330	ND(0.2)	ND(40)	23 J	--	ND(1)	ND(25)	--	ND(0.25)	**49**	--	ND(50)
		12/09/20	--	349	ND(0.2)	*ND(100)*	26.2	--	ND(5)	ND(5)	--	ND(1)	**51.1**	--	ND(20) UJ
	OW-30	10/14/2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-50	10/15/19	--	110	ND(0.2)	ND(8)	ND(10)	--	ND(1)	ND(5)	--	ND(0.5)	--	--	ND(10)
		03/02/20	--	110	ND(0.2)	ND(8)	ND(10)	--	ND(1)	ND(5)	--	ND(0.5)	12	--	ND(10)
		09/17/20	--	170	0.15 J+	ND(40)	28 J	--	ND(1)	24 J	--	ND(0.25)	17	--	ND(50)
		12/09/20	--	134	ND(0.2)	*ND(100)*	ND(6)	--	ND(5)	ND(5)	--	ND(1)	13	--	ND(20)
	OW-52	10/15/19	--	26	0.15	7.1	ND(10)	--	ND(1)	ND(5)	--	ND(0.5)	--	--	ND(10)
		03/02/20	--	26	ND(0.2)	ND(8)	ND(10)	--	ND(1)	ND(5)	--	ND(0.5)	10	--	ND(10)
		09/17/20	--	640	0.18 J+	ND(40)	28 J	--	4.2	8.1 J	--	ND(0.25)	13	--	64
		12/09/20	--	34.1	ND(0.2)	*ND(100)*	ND(6)	--	ND(5)	ND(5)	--	ND(1)	10.6	--	ND(20)
	OW-53	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-54	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-55	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-56	10/15/19	--	240	ND(0.2)	ND(8)	66	--	ND(5)	ND(5)	--	ND(0.5)	--	--	14
		03/02/20	--	260	ND(0.2)	ND(8)	69	--	ND(1)	2.2 J	--	ND(0.5)	17	--	9.4 J
		09/21/20	--	**3200**	ND(0.2)	ND(8)	86 J+	--	ND(1)	ND(5)	--	ND(0.25)	20	--	14
		12/23/20	13500	846	ND(0.2)	*ND(100)*	79.1	2160	ND(5)	ND(5)	340000	ND(1)	14	--	ND(20)
	OW-57	11/05/19	--	**4100**	ND(0.2)	ND(8)	84	--	2	1.8	--	0.057	0.86	--	12
		03/05/20	--	**2500**	ND(0.2)	ND(8)	85	--	ND(5)	3 J	--	ND(0.5)	0.45 J	--	8.3 J
		09/18/20	--	**2500**	ND(0.2)	ND(8)	71 J-	--	0.89 J	1.3 J	--	ND(0.25)	0.48 J	--	ND(10)
		12/23/20	20600	**3990**	ND(0.2)	*ND(100)*	78.8	3490	ND(5)	ND(5)	237000	ND(1)	ND(5)	--	22.7
	OW-58	11/18/19	--	**2100**	ND(0.2)	ND(8)	26	--	ND(1)	ND(0.5)	--	ND(0.5)	0.37	--	ND(10)
		1Q2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		09/17/20	--	2000	ND(0.2)	ND(8)	26 J-	--	0.75 J	ND(5)	--	ND(0.25)	0.41 J	--	ND(10) UJ
		12/22/20	35800	**2050**	ND(0.2) UJ	*ND(100)*	25.7 J	ND(1000)	ND(5)	ND(5) R	274000	ND(1)	ND(5)	--	ND(20)
	OW-58A	4Q2019		NS							NS				
		03/06/20	--	1400	ND(0.2) UJ	ND(8)	37 J-	--	ND(5)	ND(5)	--	ND(0.5)	0.93	--	ND(10) UJ
		09/18/20	--	1400	ND(0.2)	ND(8)	29 J-	--	ND(1) UJ	ND(5)	--	ND(0.25)	0.51	--	ND(10)
		12/23/20	21100	1360	ND(0.2)	*ND(100)*	30.7	ND(1000)	ND(5)	ND(5)	395000	ND(1)	ND(5)	--	ND(20)
Tank Farm	OW-61	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-62	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-63	11/18/19	--	1000	ND(0.8)	ND(8)	27	--	ND(1)	ND(0.5)	--	ND(0.5)	0.13	--	ND(10)
		03/04/20	--	1200	ND(0.2)	ND(8)	29	--	ND(1)	ND(5)	--	ND(0.5)	0.14 J	--	ND(10)
		09/16/20	--	980	ND(0.2)	ND(40)	39 J	--	ND(1)	ND(25)	--	ND(0.25)	ND(0.5)	--	ND(50)
		12/11/20	15300	1050	ND(0.2)	*ND(100)*	22.5	ND(1000)	ND(5)	ND(5)	262000	ND(1)	ND(5)	--	ND(20)
	OW-64	11/18/19	--	360	ND(0.2)	40	ND(10)	--	ND(1)	ND(0.5)	--	ND(0.5)	19	--	ND(10)
		03/04/20	--	450	ND(0.2)	17	9 J	--	0.48 J	ND(5)	--	ND(0.5)	9.5	--	6.2 J
		09/22/20	--	410	ND(0.2) UJ	24	4.8 J+	--	ND(1)	ND(5)	--	ND(0.25)	15	--	ND(10) UJ
		12/11/20	3450 JB	331	ND(0.2)	*ND(100)*	ND(6)	1400	ND(5)	ND(5)	400000	ND(1)	14	--	ND(20)
	OW-65	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-1	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-2	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-5	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-6	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	Selected Screening Level		NA	2,017	2	98.7	372	NA	50	50	NA	2	30	63.1	5,960

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-4. METALS (TOTAL) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Aluminum, Total (µg/L)	Antimony, Total (µg/L)	Arsenic, Total (µg/L)	Barium, Total (µg/L)	Beryllium, Total (µg/L)	Boron, Total (µg/L)	Cadmium, Total (µg/L)	Calcium, Total (µg/L)	Chromium, Total (µg/L)	Cobalt, Total (µg/L)	Copper, Total (µg/L)	Iron, Total (µg/L)	Lead, Total (µg/L)
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-02	11/19/19	12000	*ND(10)*	*ND(20)*	330	1.4	1100	ND(2)	310000	4.6	*ND(6)*	5.3	5700	5.4
		02/25/20	340	ND(5)	ND(5)	120	0.35 J	590	ND(2)	--	ND(6)	*ND(6)*	ND(6)	2000	0.52 J
		09/21/20	870	ND(1)	1.5	270	ND(2)	810	ND(2)	--	ND(6)	*ND(6)*	ND(6)	990 J+	0.7 JB
		12/18/20	200	*ND(20)*	ND(10)	788	ND(3)	881	ND(5)	631000	ND(10)	*ND(10)*	ND(20)	2560	ND(10)
	MKTF-03	4Q2019 - 4Q2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	MKTF-04	10/30/19	1300	ND(1)	9.7	**3600**	ND(2)	570	ND(2)	--	ND(6)	*ND(6)*	ND(6)	7600	0.52
		03/03/20	1300	ND(1) UJ	9.2	**2800**	ND(2)	490	ND(2)	--	ND(6)	*ND(6)*	11	6000	1.9
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-05	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-06	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-07	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-08	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-09	11/18/19	1100	ND(1)	3.1	690	0.44	410	ND(2)	--	ND(6)	*ND(6)*	ND(6)	3400	1.4
		03/03/20	770 J	ND(1) UJ	1.9	540	ND(2)	310	ND(2)	--	ND(6)	*ND(6)*	ND(6)	2700	1.1
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-10	10/30/19	1800	*ND(10)*	9.3	**11000**	ND(2)	510	ND(2)	--	ND(6)	*ND(6)*	ND(6)	**15000**	0.86
		03/03/20	5300	ND(1) UJ	8.1	**10000**	0.53 J	380	ND(2)	--	ND(6)	*ND(6)*	ND(6)	12000	2.7
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	3130	ND(2)	**11.8**	**9400**	ND(3)	445	ND(5)	277000	ND(10)	*ND(10)*	ND(20)	10700	1.01
	MKTF-11	10/30/19	1000	ND(5)	**22**	**2300**	ND(2)	670	ND(2)	--	ND(6)	*ND(6)*	ND(6)	4900	0.66
		03/03/20	850	ND(1) UJ	**12**	**2900**	0.42 J	590	ND(2)	--	ND(6)	*ND(6)*	ND(6)	8500	1.5
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-12	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-13	10/29/19	450	ND(1)	3.3	**6800**	ND(2)	220	ND(2)	--	ND(6)	*ND(6)*	ND(6)	**20000**	0.61
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-14	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-15	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-16	10/30/19	2300	ND(5)	**12**	**4700**	0.49	760	ND(2)	--	ND(6)	*ND(6)*	ND(6)	**17000**	3.7
		1Q2020 - 3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/23/20	2590 J	--	--	**2720**	ND(3)	407	ND(5)	--	ND(10)	*ND(10)*	ND(20)	10700 J	--
		12/28/20	2440	ND(2)	**10.7**	**3290**	ND(3)	439	ND(5)	--	ND(10)	*ND(10)*	ND(20)	12400	2.41
	MKTF-17	10/29/19	2300	ND(1)	6.8	1800	ND(2)	440	ND(2)	--	ND(6)	*ND(6)*	ND(6)	4800	1.2
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-18	10/29/19	1000	0.81	1.8	**2100**	ND(2)	420	ND(2)	--	ND(6)	*ND(6)*	ND(6)	3400	0.45
		02/06/20	18000 J	ND(1) UJ	2.5 J	**2900 J-**	1 J	240	ND(2)	--	8.4	4 J	4.3 J	9800 J	9.1 J
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	2910	ND(2)	1.7	**2250**	ND(3)	381	ND(5)	102000	ND(10)	*ND(10)*	ND(20)	4010	1.01
	MKTF-19	10/29/19	11000	ND(1)	**13**	**2100**	0.65	360	ND(2)	--	ND(6)	*ND(6)*	ND(6)	**15000**	9
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-20	11/05/19	250	ND(1)	**16**	**2000**	ND(2)	120	ND(2)	--	ND(6)	*ND(6)*	75	4300	1.6
		2Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-21	11/05/19	67	ND(1)	**22**	**14000**	0.3	810	ND(2)	--	ND(6)	*ND(6)*	14	9000	2.2
		2Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-22	10/24/19	13000	ND(1)	2	1700	0.36	420	ND(2)	--	1.6	*ND(6)*	ND(6)	12000	5.4
		1Q2020 - 4Q2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	MKTF-23	10/29/19	780	0.52	9	1900	ND(2)	520	ND(2)	--	ND(6)	*ND(6)*	ND(6)	510	1.9
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-24	10/23/19	1400	ND(1)	2.4	370	ND(2)	660	ND(2)	--	ND(6)	5.1	ND(6)	900	2.1
		02/25/20	2900	0.63 J	1.6 J	430	1 J	660	ND(2)	--	ND(6)	5 J	ND(6)	1900	4.1
		09/19/20	**71000**	ND(1)	6.5	1200	**5**	690	ND(2)	--	26	**20**	15	**32000**	**32**
		12/18/20	12500	ND(2)	3.63	628	ND(3)	687	ND(5)	182000	ND(10)	**10.5**	ND(20)	7250	**19.8**
	MKTF-25	10/23/19	**25000**	ND(5)	6.4	940	1.3	760	ND(2)	--	8.6	**6.2**	11	10000	12
		02/27/20	14000	ND(1) UJ	3.8	470	0.81 J	580	ND(2)	--	4.4 J	3.6 J	9.9	5600	6.9
Selected Screening Level			19,914	6	10	2,000	4	3,949	5	NA	50	5.98	790	13,822	15

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-4. METALS (TOTAL) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Magnesium, Total (µg/L)	Manganese, Total (µg/L)	Mercury, Total (µg/L)	Molybdenum, Total (µg/L)	Nickel, Total (µg/L)	Potassium, Total (µg/L)	Selenium, Total (µg/L)	Silver, Total (µg/L)	Sodium, Total (µg/L)	Thallium, Total (µg/L)	Uranium, Total (µg/L)	Vanadium, Total (µg/L)	Zinc, Total (µg/L)
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-02	11/19/19	55000	**2900**	ND(0.2)	ND(8)	17	4300	ND(20)	5.9	1300000	*ND(5)*	**44**	--	14
		02/25/20	--	**3000**	ND(0.2)	ND(8)	7.5 J	--	ND(5)	5	--	*ND(2.5)*	5.9	--	ND(10)
		09/21/20	--	2000	ND(0.2)	ND(8)	17 J+	--	ND(1)	3.3J/ND(5)U*	--	ND(0.25)	10	--	ND(10)
		12/18/20	109000	**6140**	ND(0.2)	*ND(100)*	16.5	5680	ND(50)	ND(5)	1150000	*ND(10)*	*ND(50)*	--	ND(20)
	MKTF-03	4Q2019 - 4Q2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	MKTF-04	10/30/19	--	1600	ND(0.2)	ND(8)	7.7	--	ND(5)	1.7	--	*ND(2.5)*	--	--	ND(10)
		03/03/20	--	1900	ND(0.2)	ND(8)	7 J	--	ND(1)	2.6 J	--	ND(0.5)	8.1	--	7.9 J
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-05	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-06	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-07	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-08	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-09	11/18/19	--	**4300**	ND(0.2)	ND(8)	10	--	ND(1)	ND(0.5)	--	ND(0.5)	6.3	--	ND(10)
		03/03/20	--	**4000**	ND(0.2)	7.2 J	11	--	ND(1)	2.5 J	--	ND(0.5)	8.1	--	ND(10)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-10	10/30/19	--	**6300**	ND(0.2)	ND(8)	11	--	ND(5)	4.5	--	*ND(2.5)*	--	--	ND(10)
		03/03/20	--	**5500**	ND(0.2)	ND(8)	18	--	ND(1)	5.2	--	ND(0.5)	0.74	--	6.5 J
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	70000	**5070**	ND(0.2) UJ	*ND(100)*	16.4	1470	ND(5)	ND(5)	321000	ND(1)	ND(5)	--	ND(20)
	MKTF-11	10/30/19	--	**2500**	ND(0.2)	12	28	--	ND(5)	2.7	--	*ND(2.5)*	--	--	ND(10)
		03/03/20	--	**4600**	ND(0.2)	7.4 J	32	--	ND(1)	4.3 J	--	ND(0.5)	8.9	--	ND(10)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-12	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-13	10/29/19	--	**4700**	ND(0.2)	ND(8)	ND(10)	--	ND(5)	3.1	--	ND(0.5)	--	--	ND(10)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-14	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-15	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-16	10/30/19	--	**4900**	ND(0.2)	ND(8)	43	--	ND(10)	2.4	--	*ND(5)*	--	--	19
		1Q2020 - 3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/23/20	--	**2540**	ND(0.2)	*ND(100)*	18.3	--	--	ND(5)	--	--	--	--	23.8
		12/28/20	--	**2680**	ND(0.2)	*ND(100)*	19.1	--	ND(5)	ND(5)	--	ND(1)	ND(5)	--	ND(20)
	MKTF-17	10/29/19	--	**3400**	ND(0.2)	ND(8)	ND(10)	--	ND(1)	2.5	--	ND(0.5)	--	--	7.8
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-18	10/29/19	--	2000	ND(0.2)	ND(8)	ND(10)	--	ND(1)	ND(5)	--	ND(0.5)	--	--	ND(10)
		02/06/20	--	**3700**	ND(0.2)	ND(8)	10	--	ND(5)	ND(5)	--	0.099 J	2.5 J	--	15
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	26100	**2350**	ND(0.2)	*ND(100)*	ND(6)	1110 JB	ND(5)	ND(5)	251000	ND(1)	ND(5) UJ	--	ND(20)
	MKTF-19	10/29/19	--	**2400**	ND(0.2)	ND(8)	5.2	--	ND(5)	1.5	--	ND(0.5)	--	--	30
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-20	11/05/19	--	2000	0.042	ND(8)	7.3	--	ND(5)	ND(5)	--	ND(0.5)	0.52	--	440
		2Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-21	11/05/19	--	**5800**	ND(0.2)	14	55	--	ND(1)	6.9	--	*ND(2.5)*	2.7	--	96
		2Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-22	10/24/19	--	**2900**	0.097	ND(8)	10	--	ND(5)	1.5	--	0.052	--	--	14
		1Q2020 - 4Q2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	MKTF-23	10/29/19	--	1900	ND(0.2)	9.1	21	--	ND(5)	1.5	--	ND(0.5)	--	--	ND(10)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-24	10/23/19	--	**2300**	0.12	ND(8)	34	--	ND(1)	2.8	--	ND(0.5)	--	--	ND(10)
		02/25/20	--	**2200**	ND(0.2)	ND(8)	37	--	ND(5)	3 J	--	0.071 J	18	--	7 J
		09/19/20	--	**4400**	0.13 J+	ND(8)	62	--	5.9	ND(5)	--	ND(1.2) UJ	14 J	--	39
		12/18/20	34900	**2840**	ND(0.2)	*ND(100)*	44.2	5150	ND(5)	ND(5)	438000	ND(1)	16.1	--	ND(20)
	MKTF-25	10/23/19	--	**5800**	0.16	ND(8)	35	--	ND(5)	4.4	--	*ND(2.5)*	--	--	21
		02/27/20	--	**3400**	ND(0.2)	ND(8)	28	--	1.2	3.7 J	--	0.061 J	**34**	--	11
Selected Screening Level			NA	2,017	2	98.7	372	NA	50	50	NA	2	30	63.1	5,960

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-4. METALS (TOTAL) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Aluminum, Total (µg/L)	Antimony, Total (µg/L)	Arsenic, Total (µg/L)	Barium, Total (µg/L)	Beryllium, Total (µg/L)	Boron, Total (µg/L)	Cadmium, Total (µg/L)	Calcium, Total (µg/L)	Chromium, Total (µg/L)	Cobalt, Total (µg/L)	Copper, Total (µg/L)	Iron, Total (µg/L)	Lead, Total (µg/L)
Marketing Tank Farm Area		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	4980	ND(2)	3.67	341	ND(3)	710	ND(5)	166000	ND(10)	*ND(10)*	ND(20)	4070	2.23
	MKTF-26	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-27	10/23/19	320	ND(5)	ND(5)	44	ND(2)	630	ND(2)	--	ND(6)	*ND(6)*	4.5	190	ND(2.5)
		02/25/20	1200	ND(5)	ND(10)	91	0.46 J	300	ND(2)	--	ND(6)	*ND(6)*	13	1300	1 J
		09/20/20	180 J+	ND(5)	ND(5)	46	ND(2)	620	ND(2)	--	ND(6)	*ND(6)*	ND(6)	210	ND(2.5)
		12/18/20	930	*ND(20)*	ND(10)	60.2	ND(3)	531	ND(5)	248000	ND(10)	*ND(10)*	ND(20)	779	ND(10)
	MKTF-28	10/22/19	2300	ND(1)	1.9	81	0.33	2000	ND(2)	--	ND(6)	*ND(6)*	4.1	1600	1.9
		02/25/20	2600	ND(1)	1.5	89	1 J	1500	ND(2)	--	ND(6)	*ND(6)*	ND(6)	2000	2.2
		09/20/20	910 J+	ND(1)	1.3	66	ND(2)	2000	ND(2)	--	ND(6)	*ND(6)*	ND(6)	510	0.56
		12/18/20	1070	ND(2)	ND(1)	85.4	ND(3)	1620	ND(5)	59900	ND(10)	*ND(10)*	ND(20)	952	ND(1)
	MKTF-29	10/22/19	1900	ND(5)	ND(5)	92	0.45	760	ND(2)	--	ND(6)	*ND(6)*	5.7	660	0.64
		02/25/20	64	ND(5)	ND(5)	79	ND(2)	570	ND(2)	--	ND(6)	*ND(6)*	4.4 J	40	ND(2.5)
		09/20/20	ND(20)	ND(1)	0.94 J	130	ND(2)	760	ND(2)	--	ND(6)	*ND(6)*	ND(6)	33 J	0.14 J
		12/15/20	206	ND(2)	ND(1)	155	ND(3)	696	ND(5)	377000	ND(10)	*ND(10)*	ND(20)	ND(200)	ND(1)
	MKTF-30	10/23/19	12000	ND(1)	1.9	160	0.35	670	ND(2)	--	3.3	*ND(6)*	ND(6)	4900	3.4
		02/27/20	4400	0.41 J	0.93 J+	67	1 J	560	ND(2)	--	ND(6)	*ND(6)*	5 J	1900	1.7
		09/20/20	7700	ND(1)	1.2	110	ND(2)	700	ND(2)	--	ND(6)	*ND(6)*	ND(6)	3300	2.7
		12/15/20	961 J	ND(2)	ND(1)	42.6 J	ND(3)	693	ND(5)	77300	ND(10)	*ND(10)*	ND(20)	498 J	ND(1) UJ
	MKTF-31	10/22/19	9800	ND(1)	ND(5)	210	0.42	760	ND(2)	--	2.5	*ND(6)*	ND(6)	3800	3.5
		02/25/20	2900	ND(1)	0.64 J	150	ND(2)	450	ND(2)	--	ND(6)	*ND(6)*	5 J	1000	1.2
		09/19/20	7700	ND(1)	1.1	170	0.9 J	770	ND(2)	--	2.3 J	*ND(6)*	ND(6)	3300	2.5
		12/18/20	2620 J	ND(2)	ND(1)	151	ND(3)	625	ND(5)	109000	ND(10)	*ND(10)*	ND(20)	1500 J	1.11
	MKTF-32	10/23/19	11000	ND(1)	3.4	190	0.35	1200	ND(2)	--	3	*ND(6)*	4.6	5500	4.2
		02/27/20	860	ND(1)	2.4 J+	56	ND(2)	1000	ND(2)	--	ND(6)	*ND(6)*	ND(6)	440	0.54
		09/21/20	ND(20)	ND(1)	2.6	43	ND(2)	1200	ND(2)	--	ND(6)	*ND(6)*	ND(6)	ND(50)	0.1J/ND(0.5)U*
		12/15/20	ND(200)	ND(2)	2.78	43.2	ND(3)	1130	ND(5)	21700 JB	ND(10)	*ND(10)*	ND(20)	ND(200)	1.68
	MKTF-33	10/24/19	7600	ND(1)	1.1	210	ND(2)	540	ND(2)	--	2.1	*ND(6)*	ND(6)	4500	3.1
		02/28/20	2400	ND(1)	0.75 J	120	ND(2)	510	ND(2)	--	ND(6)	*ND(6)*	ND(6)	930	1.6
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-34	10/29/19	1400	ND(1)	ND(5)	170	ND(2)	530	ND(2)	--	ND(6)	*ND(6)*	ND(6)	1300	1
		02/05/20	1400 J	0.93 J-	ND(5)	180 J-	0.3 J	250	ND(2)	--	ND(6)	*ND(6)*	ND(6)	920 J	0.9 J
		02/28/20	1600	ND(1)	0.86 J	200	0.51 J	190	ND(2)	--	ND(6)	*ND(6)*	ND(6)	1100 J	1.1
		09/16/20	19000	ND(1)	6.8	520	*ND(10)*	500	*ND(10)*	--	ND(30)	*ND(30)*	ND(30)	**21000**	**18**
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-35	10/29/19	11000	ND(1)	2.2	**2700**	0.54	360	ND(2)	--	1.7	*ND(6)*	ND(6)	8300	6.2
		02/06/20	660 J	1.7 J-	1.3	**2100 J-**	ND(2)	380 J	ND(2)	--	ND(6)	*ND(6)*	ND(6)	2100 J	0.43J/ND(0.5)U*
		09/16/20	**22000 J**	ND(1)	3.8 J	**4300 J**	*ND(10)*	350	*ND(10)*	--	ND(30)	*ND(30)*	ND(30)	13000 J	15 J
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-36	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/18/20	1700	ND(1)	**18**	**7500**	ND(2)	370	ND(2)	--	ND(6)	*ND(6)*	ND(6)	12000	4.9
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-37	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/17/20	7100	ND(1)	5.9	**2000**	ND(2)	550	ND(2)	--	7.3	3.5 J	12	**24000**	**23**
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-38	4Q2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/05/20	11000	ND(1)	ND(5)	240	0.79 J	470	ND(2)	--	4.9 J	*ND(6)*	4.8 J	3800	3.9
		09/19/20	10000	ND(1)	1.6	180	0.93 J	470	ND(2)	--	ND(6)	2.8 J	ND(6)	4400	4.4
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-39	11/05/19	**20000**	ND(5)	2.1	**52000**	1.5	570	ND(2)	--	ND(6)	*ND(6)*	13	**32000**	13
		02/05/20	18000 J	*ND(20) UJ*	*ND(20)*	**55000 J-**	1.6 J	460	ND(2)	--	ND(6)	*ND(6)*	12	**33000 J**	12 J
		09/19/20	4800	ND(5)	ND(5)	**38000**	1.3 J	580	ND(2)	--	ND(6)	*ND(6)*	ND(6)	**29000**	2.5 J
Selected Screening Level			19,914	6	10	2,000	4	3,949	5	NA	50	5.98	790	13,822	15

TABLE 4-4. METALS (TOTAL) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Magnesium, Total (µg/L)	Manganese, Total (µg/L)	Mercury, Total (µg/L)	Molybdenum, Total (µg/L)	Nickel, Total (µg/L)	Potassium, Total (µg/L)	Selenium, Total (µg/L)	Silver, Total (µg/L)	Sodium, Total (µg/L)	Thallium, Total (µg/L)	Uranium, Total (µg/L)	Vanadium, Total (µg/L)	Zinc, Total (µg/L)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	32800	**3200**	ND(0.2)	*ND(100)*	27	3110	ND(5)	ND(5)	447000	ND(1)	**46.2**	--	ND(20)
	MKTF-26	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-27	10/23/19	--	130	0.1	ND(8)	31	--	ND(5)	5.3	--	*ND(2.5)*	--	--	ND(10)
		02/25/20	--	320	ND(0.2)	ND(8)	28	--	7.1 J	14	--	*ND(5)*	**34**	--	ND(10) UJ
		09/20/20	--	450	ND(0.2)	ND(8)	30 J-	--	ND(5)	4.5 J	--	ND(1.2)	**30**	--	ND(10) UJ
		12/18/20	46700	295	ND(0.2)	*ND(100)*	34.4	14700	ND(50)	ND(5)	1810000	*ND(10)*	*ND(50)*	--	ND(20)
	MKTF-28	10/22/19	--	120	0.05	ND(8)	4.5	--	ND(5)	ND(5)	--	ND(0.5)	--	--	13
		02/25/20	--	110	ND(0.2)	ND(8)	5 J	--	1	ND(5)	--	0.092 J	**120**	--	7 J
		09/20/20	--	88	ND(0.2)	ND(8)	ND(10) UJ	--	ND(1)	ND(5)	--	ND(0.25)	**110**	--	ND(10)
		12/18/20	13300	59	ND(0.2) UJ	*ND(100)*	ND(6)	2930	ND(5)	ND(5)	568000	ND(1)	**125**	--	ND(20)
	MKTF-29	10/22/19	--	**2100**	0.042	ND(8)	9.8	--	ND(5)	3.4	--	*ND(2.5)*	--	--	6.9
		02/25/20	--	**2400**	ND(0.2)	ND(8)	11	--	ND(5)	5	--	*ND(2.5)*	13	--	ND(10)
		09/20/20	--	**4500**	ND(0.2)	ND(8)	15 J-	--	ND(1)	6.2	--	ND(0.25)	16	--	ND(10) UJ
		12/15/20	58000	**4770**	ND(0.2)	*ND(100)*	19.7	1020	ND(5)	ND(5)	814000	ND(1)	18.5	--	ND(20)
	MKTF-30	10/23/19	--	500	0.22	ND(8)	25	--	ND(5)	1.6	--	0.064	--	--	12
		02/27/20	--	270	ND(0.2)	ND(40)	17	--	0.51 J	ND(5)	--	0.097 J	29 J-	--	ND(10)
		09/20/20	--	440	0.13 J+	ND(8)	19 J-	--	1.6	ND(5)	--	ND(0.25)	**34**	--	7.8J/ND(10)U*
		12/15/20	14800	60.3 J	ND(0.2)	*ND(100)*	15.6 J	ND(1000)	ND(5)	ND(5)	711000	ND(1)	**32.2**	--	ND(20)
	MKTF-31	10/22/19	--	170	ND(0.2)	ND(8)	10	--	ND(5)	2.9	--	0.064	--	--	11
		02/25/20	--	59	ND(0.2)	ND(8)	ND(10)	--	ND(1)	2 J	--	ND(0.5)	**43**	--	ND(10)
		09/19/20	--	140	ND(0.2)	ND(8)	7.3 J	--	1	ND(5)	--	ND(0.25) UJ	**37**	--	ND(10)
		12/18/20	23700	61.6 J	ND(0.2) UJ	*ND(100)*	6.62	2020	ND(5)	ND(5)	354000	ND(1)	**42.1**	--	ND(20)
	MKTF-32	10/23/19	--	160	0.19	ND(8)	5.5	--	ND(5)	ND(5)	--	0.081	--	--	23
		02/27/20	--	100	ND(0.2)	ND(8)	ND(10)	--	0.91 J	ND(5)	--	ND(0.5)	**51 J-**	--	ND(10)
Marketing Tank Farm Area		09/21/20	--	65 JB	ND(0.2)	ND(8)	ND(10)	--	ND(1)	ND(5)	--	ND(0.25)	**54**	--	ND(10)
		12/15/20	4290 JB	63.7	ND(0.2)	*ND(100)*	ND(6)	ND(1000)	ND(5)	ND(5)	523000	ND(1)	**52.7**	--	ND(20)
	MKTF-33	10/24/19	--	480	0.13	ND(8)	5.8	--	0.55	ND(5)	--	ND(0.5)	--	--	12
		02/28/20	--	340	ND(0.2)	ND(8)	ND(10)	--	ND(1)	ND(5)	--	0.054 J	**30**	--	ND(10)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-34	10/29/19	--	33	0.15	ND(8)	ND(10)	--	4.4	2.5	--	ND(0.5)	--	--	14
		02/05/20	--	30	ND(0.2)	ND(8)	ND(10)	--	ND(5)	3.4 J	--	ND(0.5)	18 J	--	10
		02/28/20	--	37 J	ND(0.2)	ND(8)	ND(10)	--	1.3	4 J	--	0.056 J	21	--	12
		09/16/20	--	410	1.3 JB	ND(40)	ND(50)	--	8.2	ND(25)	--	0.41	27	--	150
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-35	10/29/19	--	**3500**	ND(0.2)	ND(8)	8.7	--	ND(5)	2.7	--	ND(0.5)	--	--	14
		02/06/20	--	2000 J	ND(0.2)	ND(8)	ND(10)	--	ND(1)	1.5 J	--	ND(0.5)	0.72 J	--	6 J
		09/16/20	--	**5000**	0.2 JB	ND(40)	19 J	--	3 J	ND(25)	--	ND(0.25)	4.1	--	37J/ND(50)U*
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-36	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/18/20	--	1800	ND(0.2)	ND(8)	ND(10) UJ	--	0.76 J	ND(5)	--	ND(0.25)	0.4 J	--	16 J
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-37	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/17/20	--	1600	ND(0.2)	11	9.5 J-	--	2.1	ND(5)	--	ND(0.25)	8.9	--	66
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-38	4Q2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/05/20	--	1400	ND(0.2)	ND(8)	8.6 J	--	6.1	3.4 J	--	ND(0.5)	22	--	14
		09/19/20	--	1300	ND(0.2)	ND(8)	5.9 J	--	9.5	2.9 J	--	ND(0.25) UJ	24	--	34
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-39	11/05/19	--	**6700**	0.085	ND(8)	18	--	4.1	10	--	*ND(2.5)*	4.3	--	25
		02/05/20	--	**6700**	ND(0.2)	ND(8)	18	--	ND(20)	11	--	*ND(2.5)*	6.6 J	--	22
		09/19/20	--	**4500**	0.13 J+	ND(8)	11	--	ND(5)	5.8	--	ND(1.2) UJ	4	--	10 J
	Selected Screening Level		NA	2,017	2	98.7	372	NA	50	50	NA	2	30	63.1	5,960

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-4. METALS (TOTAL) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Aluminum, Total (µg/L)	Antimony, Total (µg/L)	Arsenic, Total (µg/L)	Barium, Total (µg/L)	Beryllium, Total (µg/L)	Boron, Total (µg/L)	Cadmium, Total (µg/L)	Calcium, Total (µg/L)	Chromium, Total (µg/L)	Cobalt, Total (µg/L)	Copper, Total (µg/L)	Iron, Total (µg/L)	Lead, Total (µg/L)
Marketing Tank Farm Area	MKTF-40	12/16/20	13500	ND(2)	1.92	**30400**	ND(3)	467	ND(5)	601000	ND(10)	*ND(10)*	ND(20)	**28500**	11.4
		10/22/19	3100	ND(5)	ND(5)	110	ND(2)	2200	ND(2)	--	ND(6)	*ND(6)*	ND(6)	2300	2.3
		02/28/20	11000	ND(5)	3 J	290	1 J	1800	ND(2)	--	3.2 J	*ND(6)*	ND(6)	7700	12
		09/19/20	14000	ND(5)	1.5 J	250	1.4 J	2300	ND(2)	--	3.5 J	*ND(6)*	ND(6)	7200	7.5
		12/17/20	3650 J+	ND(2)	ND(1)	116	ND(3)	2140	ND(5)	242000	ND(10)	*ND(10)*	ND(20)	1980	1.35 J
	MKTF-41	10/23/19	4300	ND(1)	2.5	110	ND(2)	860	ND(2)	--	ND(6)	*ND(6)*	ND(6)	2200	1.8
		02/27/20	94	ND(1)	2.2 J+	63	ND(2)	760	ND(2)	--	ND(6)	*ND(6)*	ND(6)	39	ND(0.5)
		09/21/20	15J/ND(20)U*	ND(1)	2	60	ND(2)	770	ND(2)	--	ND(6)	*ND(6)*	ND(6)	20J/ND(50)U*	ND(0.5)
		12/15/20	1430	ND(2)	1.95	77.3	ND(3)	765	ND(5)	14400 JB	ND(10)	*ND(10)*	ND(20)	764	ND(1)
	MKTF-42	10/23/19	320	ND(1)	ND(5)	62	ND(2)	760	ND(2)	--	ND(6)	*ND(6)*	ND(6)	190	ND(2.5)
		02/27/20	140	ND(1)	2.3 J+	52	ND(2)	650	ND(2)	--	ND(6)	*ND(6)*	ND(6)	69	0.16 J
		09/21/20	45 JB	ND(1)	1.9	52	ND(2)	710	ND(2)	--	ND(6)	*ND(6)*	ND(6)	31J/ND(50)U*	0.13J/ND(0.5)U*
		12/16/20	270	ND(2)	2.15	53.6	ND(3)	722	ND(5)	18100 JB	ND(10)	*ND(10)*	ND(20)	ND(200)	ND(1)
	MKTF-43	10/24/19	4500	ND(5)	2.3	140	ND(2)	1100	ND(2)	--	ND(6)	*ND(6)*	ND(6)	3000	2.8
		02/27/20	2900	ND(5)	ND(5)	97	1 J	640	ND(2)	--	ND(6)	*ND(6)*	5 J	1700	1.7 J
		09/21/20	420	*ND(10)*	*ND(20)*	98	1.2 J	1300	ND(2)	--	ND(6)	*ND(6)*	ND(6)	300 JB	0.38J/ND(5)U*
	MKTF-44	12/15/20	6530	ND(2)	2	147	ND(3)	1280	ND(5)	1220000	ND(10)	*ND(10)*	ND(20)	5330	3.02 J
		10/24/19	4600	ND(1)	5.9	190	ND(2)	1900	ND(2)	--	6.9	*ND(6)*	ND(6)	4000	3.8
		03/05/20	12000	ND(1)	9.1	290	1.7 J	1900	ND(2)	--	18	3.7 J	11	**14000**	**15**
		09/21/20	18000	ND(1)	**11**	270	1.8 J	1800	ND(2)	--	23	5.3 J	8.7	**17000 J+**	**19**
		12/23/20	3180 J	ND(2)	9.85	82.9	ND(3)	1760	ND(5)	16600	ND(10)	*ND(10)*	ND(20)	2800 J	1.93
	MKTF-45	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-46	4Q2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/06/20	4300	ND(1)	ND(5)	110	ND(2)	170 J-	ND(2)	--	3.8 J-	*ND(6) UJ*	ND(6)	1900	1.6
		09/17/20	**22000**	ND(1)	3.9	590	2 J	220	1.7 J	--	37	**7.6**	12	**17000**	**15**
		12/16/20	203	ND(2)	ND(1)	45.5	ND(3)	181	ND(5)	240000	ND(10)	*ND(10)*	ND(20)	ND(200)	ND(1)
	MKTF-47	03/06/20	3200	ND(1)	ND(5)	100	ND(2)	250 J-	ND(2)	--	11 J-	*ND(6) UJ*	ND(6)	1600	0.73
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-48	2Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-49	03/05/20	**24000**	ND(1)	2.5	**5700**	2.1	720	ND(2)	--	6.8	*ND(6)*	9.6	**18000**	**31**
		09/20/20	5800	ND(1)	1.2	**6100**	ND(2)	650	ND(2)	--	ND(6)	*ND(6)*	ND(6)	**16000**	2.4
		12/23/20	**68100 J**	ND(2)	2.02	**7560**	ND(3)	582	ND(5)	351000	33.4	**14.7**	25	**48000 J**	13.5
	MKTF-50	03/05/20	6900	ND(1)	7.9	**2500**	0.55 J	970	ND(2)	--	2 J	*ND(6)*	ND(6)	5300	3 J
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	6330	ND(2)	2.09 J	**4130**	ND(3)	887	ND(5)	117000	ND(10)	*ND(10)*	ND(20)	6790	1.34
Wastewater Treatment Area	KA-3	10/21/19	960	ND(1)	8	1800	ND(2)	810	ND(2)	--	ND(6)	*ND(6)*	ND(6)	1100	0.56
		03/04/20	1000	ND(1)	6.4	**2000**	0.36 J	630	ND(2)	--	ND(6)	*ND(6)*	ND(6)	1200	0.72
		09/22/20	1000	ND(1)	3.1	**3000**	ND(2)	670	ND(2)	--	ND(6)	*ND(6)*	ND(6)	1300 J+	0.87 J-
		12/17/20	248	ND(2)	ND(1)	137	ND(3)	1460	ND(5)	24500	ND(10)	*ND(10)*	ND(20)	371	ND(1)
	LDU - East	11/19/19	420	ND(1)	1.1	62	0.34	38	ND(2)	--	**480**	3.5	14	3100	0.51
		03/10/20	650	ND(1)	ND(5)	59	ND(2)	220	ND(2)	--	**210**	*ND(6)*	ND(6)	530	0.086 J
		3Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
		12/17/20	8750 J+	ND(2)	2.98	17.4	ND(3)	ND(100)	ND(5)	--	**2360**	**32.4**	ND(20)	**26500**	ND(1)
	LDU - West	11/19/19	180	ND(5)	*ND(20)*	62	0.82	460	ND(2)	--	**150**	*ND(6)*	ND(6)	**51000**	ND(2.5)
		03/10/20	**24000**	ND(5)	1.6 J	45	2.1	140	ND(2)	--	**1900**	**12**	ND(6)	**530000**	ND(2.5)
		3Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
		12/17/20	1620 J+	ND(2)	ND(1)	167	ND(3)	ND(100)	ND(5)	--	**205**	*ND(10)*	ND(20)	1640	ND(1)
	NAPIS-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	NAPIS-2	10/21/19	1900	ND(1)	4.2	2000	ND(2)	810	ND(2)	--	ND(6)	*ND(6)*	ND(6)	2800	1.1
		03/04/20	2100	ND(1)	3.2	**2400**	0.31 J	570	ND(2)	--	ND(6)	*ND(6)*	ND(6)	2300	1.4
		09/22/20	660 J+	ND(1)	2 J	1800	ND(2)	610	ND(2)	--	ND(6)	*ND(6)*	ND(6)	2000 J+	0.37J/ND(0.5)U*
		12/17/20	3090	ND(2)	3.53	**2820**	ND(3)	529	ND(5)	60600	ND(10)	*ND(10)*	ND(20)	2430	1.62
Selected Screening Level			19,914	6	10	2,000	4	3,949	5	NA	50	5.98	790	13,822	15

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-4. METALS (TOTAL) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Magnesium, Total (µg/L)	Manganese, Total (µg/L)	Mercury, Total (µg/L)	Molybdenum, Total (µg/L)	Nickel, Total (µg/L)	Potassium, Total (µg/L)	Selenium, Total (µg/L)	Silver, Total (µg/L)	Sodium, Total (µg/L)	Thallium, Total (µg/L)	Uranium, Total (µg/L)	Vanadium, Total (µg/L)	Zinc, Total (µg/L)
Marketing Tank Farm Area	MKTF-40	12/16/20	162000	**5510**	ND(0.2)	*ND(100)*	15.4	18200	ND(10)	ND(5)	2740000	ND(1)	ND(5)	--	21.5
		10/22/19	--	56	ND(0.2)	ND(8)	11	--	ND(5)	5.1	--	*ND(2.5)*	--	--	9.8
		02/28/20	--	380	ND(0.2)	ND(8)	18	--	3.2 J	3 J	--	*ND(2.5)*	**45**	--	21
		09/19/20	--	330	0.17 J+	ND(8)	14	--	ND(5)	3.4 J	--	ND(1.2) UJ	**38**	--	17 J
		12/17/20	45600	87	ND(0.2)	*ND(100)*	12.5	8840	ND(5)	ND(5)	1880000	ND(1)	ND(5) UJ	--	ND(20)
	MKTF-41	10/23/19	--	67	0.16	11	ND(10)	--	33	ND(5)	--	0.053	--	--	9.2
		02/27/20	--	8	ND(0.2)	10	ND(10)	--	41	ND(5)	--	ND(0.5)	12 J-	--	ND(10)
		09/21/20	--	6.4/ND(6.4)U*	ND(0.2)	13	ND(10)	--	36	ND(5)	--	ND(0.25)	12	--	ND(10) UJ
		12/15/20	1870 JB	49.1	ND(0.2)	*ND(100)*	ND(6)	2070	36	ND(5)	575000	ND(1)	13.3	--	ND(20)
	MKTF-42	10/23/19	--	110	0.2	39	ND(10)	--	ND(5)	ND(5)	--	*ND(2.5)*	--	--	ND(10)
		02/27/20	--	51	ND(0.2)	17	ND(10)	--	1.1	ND(5)	--	ND(0.5)	14 J-	--	ND(10)
		09/21/20	--	42 JB	ND(0.2)	25	ND(10)	--	1.3	ND(5)	--	ND(0.25)	19	--	ND(10)
		12/16/20	2630 JB	41.3 J	ND(0.2)	*ND(100)*	ND(6) UJ	1730 JB	ND(5)	ND(5)	609000	ND(1)	ND(5) R	--	ND(20) UJ
	MKTF-43	10/24/19	--	1100	0.15	ND(8)	4.1	--	2.5	14	--	*ND(2.5)*	--	--	8.8
		02/27/20	--	470	0.12 J	ND(8)	ND(10)	--	ND(5)	16	--	*ND(2.5)*	**63 J-**	--	ND(10)
		09/21/20	--	1400	ND(0.2)	ND(8)	4.6 J+	--	ND(20)	20 JB	--	*ND(2.5)*	**110**	--	ND(10)
		12/15/20	175000	1850	ND(0.2)	*ND(100)*	6.79	10400 J	ND(5)	ND(5)	3000000	ND(1)	**117**	--	ND(20)
	MKTF-44	10/24/19	--	110	0.15	ND(8)	ND(10)	--	11	ND(5)	--	0.095	--	--	17
		03/05/20	--	320	ND(0.2)	ND(8)	6.2 J	--	16	ND(5)	--	0.29 J	**160**	--	52
		09/21/20	--	320	ND(0.2)	ND(8)	5.7 J+	--	14	ND(5)	--	0.36	**150**	--	61 JB
		12/23/20	1000	60	ND(0.2)	*ND(100)*	ND(6)	3110	12.1	ND(5)	545000	ND(1)	**166**	--	ND(20)
	MKTF-45	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-46	4Q2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/06/20	--	340	ND(0.2) UJ	ND(8)	ND(10) UJ	--	ND(5)	5.6	--	ND(0.5)	8	--	ND(10) UJ
		09/17/20	--	**3400**	0.2 J+	ND(8)	13 J-	--	2.8	5.4	--	ND(0.25)	9.7	--	48
		12/16/20	47400	406	ND(0.2)	*ND(100)*	ND(6)	2890 JB	ND(5)	ND(5)	215000	ND(1)	ND(5) UJ	--	ND(20)
	MKTF-47	03/06/20	--	75	ND(0.2) UJ	ND(8)	ND(10) UJ	--	5.1	2.4 J	--	ND(0.5)	12	--	ND(10) UJ
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-48	2Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-49	03/05/20	--	**6800**	ND(0.2)	ND(8)	20	--	2.8	4.7 J	--	0.09 J	5.9	--	18
		09/20/20	--	**6100**	ND(0.2)	ND(8)	5.9 J-	--	ND(1)	2.7 J	--	ND(0.25)	2.1 J	--	ND(10)
		12/23/20	84500	**7890**	ND(0.2)	*ND(100)*	30.8	10900	ND(5)	ND(5)	803000	ND(1)	ND(5)	--	45.6
	MKTF-50	03/05/20	--	1500	ND(0.2)	ND(8)	4.7 J	--	ND(1)	ND(5)	--	ND(0.5)	0.68	--	11
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	30900	**2090**	ND(0.2)	*ND(100)*	10.2	4760 JB	ND(5)	ND(5)	460000	ND(1)	ND(5)	--	ND(20)
Wastewater Treatment Area	KA-3	10/21/19	--	1600	0.043	ND(8)	28	--	ND(5)	1.6	--	ND(0.5)	--	--	ND(10)
		03/04/20	--	1700	ND(0.2) UJ	ND(8)	24	--	ND(1)	3 J	--	ND(0.5)	3.7	--	ND(10)
		09/22/20	--	1400	ND(0.2) UJ	ND(8)	21 J+	--	ND(1)	1.6J/ND(5)U*	--	ND(0.25) UJ	1.1	--	ND(10) UJ
		12/17/20	4340	302	ND(0.2)	*ND(100)*	20.5	2700	ND(5)	ND(5)	455000	ND(1)	21	--	ND(20)
	LDU - East	11/19/19	--	340	0.15	ND(8)	**650**	--	ND(1)	ND(5)	--	ND(0.5)	ND(0.5)	--	71
		03/10/20	--	500	ND(0.2)	ND(8)	**390**	--	ND(5) R	2.2 J	--	ND(0.5)	0.1 J	--	17
		3Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
		12/17/20	--	**3180**	ND(0.2)	*ND(100)*	**4130**	--	ND(5)	ND(5)	--	ND(1)	ND(5)	--	64.8
	LDU - West	11/19/19	--	**19000**	ND(0.2)	ND(8)	45	--	ND(20)	5.9	--	*ND(2.5)*	0.82	--	29
		03/10/20	--	**41000**	ND(0.2)	ND(8)	**700**	--	ND(5) UJ	ND(5)	--	*ND(2.5)*	ND(2.5)	--	77
		3Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
		12/17/20	--	851	ND(0.2)	*ND(100)*	119	--	ND(5)	ND(5)	--	ND(1)	ND(5)	--	ND(20)
	NAPIS-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	NAPIS-2	10/21/19	--	920	0.055	ND(8)	11	--	0.57	ND(5)	--	ND(0.5)	--	--	8.4
		03/04/20	--	690	ND(0.2) UJ	ND(8)	11	--	ND(1)	1.4 J	--	ND(0.5)	0.28 J	--	7.1 J
		09/22/20	--	730	ND(0.2) UJ	ND(8)	10 J+	--	ND(1)	ND(5)	--	ND(0.25)	0.07 J	--	ND(10) UJ
		12/17/20	12200	736	ND(0.2)	*ND(100)*	11.9	1090	ND(5)	ND(5)	237000	ND(1)	ND(5)	--	ND(20)
Selected Screening Level			NA	2,017	2	98.7	372	NA	50	50	NA	2	30	63.1	5,960

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-4. METALS (TOTAL) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Aluminum, Total (µg/L)	Antimony, Total (µg/L)	Arsenic, Total (µg/L)	Barium, Total (µg/L)	Beryllium, Total (µg/L)	Boron, Total (µg/L)	Cadmium, Total (µg/L)	Calcium, Total (µg/L)	Chromium, Total (µg/L)	Cobalt, Total (µg/L)	Copper, Total (µg/L)	Iron, Total (µg/L)	Lead, Total (µg/L)
Wastewater Treatment Area	NAPIS-3	10/21/19	2900	1	2	140	0.3	2200	ND(2)	--	4.1	*ND(6)*	8	1300	1.6
		03/04/20	28	ND(1)	1.2	110	0.31 J	1700	ND(2)	--	ND(6)	*ND(6)*	ND(6)	37	0.29 J
		09/22/20	190	ND(1)	0.63 J	100	ND(2)	1300	ND(2)	--	ND(6)	*ND(6)*	4.8 J	320 J+	0.43 J-
		12/17/20	364	ND(2)	4.22	**2230**	ND(3)	676	ND(5)	108000	ND(10)	*ND(10)*	ND(20)	2050	ND(1)
	OAPIS-1	10/21/19	11000	ND(5)	**11**	1500	0.68	1700	ND(2)	--	7.8	**8.2**	19	8800	10
		03/04/20	440	1.1	6.2	1300	0.35 J	1300	ND(2)	--	ND(6)	*ND(6)*	4.3 J	1500	4.3
		09/22/20	3900	0.89 J	8.4	970	ND(2)	1500	ND(2)	--	ND(6)	2.9 J	6	4300 J+	8.8 J-
		12/17/20	497	ND(2)	6.82	1010	ND(3)	1690	ND(5)	134000	ND(10)	*ND(10)*	ND(20)	2500	7.75
	STP1-NW	10/22/19	2800	ND(5)	3.3	130	ND(2)	2100	ND(2)	--	1.9	*ND(6)*	4.7	2100	1.9
		03/04/20	800	ND(1)	2.7	110	0.46 J	2200	ND(2)	--	ND(6)	*ND(6)*	ND(6)	540	0.49 J
		3Q2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		12/23/20	623 J	ND(2)	2.11	134	ND(3)	2180	ND(5)	113000	ND(10)	*ND(10)*	ND(20)	471 J	ND(1)
	STP1-SW	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
	Oil Sump LDU	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	GWM-2	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	GWM-3	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-59	10/15/19	**22000**	*ND(10)*	9.6	320	0.79	2500	ND(2)	--	10	*ND(6)*	6.5	8600	5.4
		03/03/20	12000	ND(5) UJ	6.7	140	0.71 J	2500	ND(2)	--	5.4 J	*ND(6)*	6.2	5100	3.5
		09/19/20	**99000**	*ND(10)*	**23**	980	**5.2**	2400	ND(2)	--	47	**15**	28	**48000 J-**	**30**
		12/23/20	5810 J	ND(2)	4.7	81.9 J	ND(3)	2140	ND(5)	187000	ND(10)	*ND(10)*	ND(20)	3280 J	1.37
	OW-60	10/15/19	**30000**	ND(5)	5.2	430	0.96	2500	ND(2)	--	**78**	5.9	13	11000	5.9
		03/03/20	**21000**	0.43 J-	3.6	240	0.72 J	2400	ND(2)	--	**540**	**7.8**	24	11000	4.9
		09/21/20	**20000**	ND(1)	2.2	210	ND(2)	2400	ND(2)	--	**59**	5.8 J	8.5	7900 J+	3.8
		12/11/20	9480	ND(2)	1.57	102	ND(3)	2310	ND(5)	97600	37.9	*ND(10)*	ND(20)	4180	1.5
Land Treatment Unit	MW-1	09/20/17	--	--	0.97	15	--	--	ND(2)	--	7.4	--	1.8	260	1.6
		09/13/18	--	ND(1)	1.3	13	ND(2)	--	ND(2)	--	1.8	--	ND(6)	160	1.3
		12/06/18	--	ND(1)	1.1	ND(20)	ND(3)	--	ND(2)	--	ND(6)	*ND(6)*	--	--	ND(1)
		08/12/19	260	ND(1)	1.3	14	ND(2)	700	ND(2)	--	1.7	*ND(6)*	ND(6)	120	0.37
		09/22/20	81 J+	ND(1)	1.4	13	ND(2)	760	ND(2)	--	ND(6)	*ND(6)*	ND(6)	37 J+	0.42J/ND(0.5)U*
	MW-2	09/20/17	--	--	0.73	22	--	--	ND(2)	--	ND(6)	--	ND(6)	97	0.55
		09/13/18	--	ND(1)	0.99	17	ND(2)	--	ND(2)	--	ND(6)	--	ND(6)	10	ND(0.5)
		12/06/18	--	ND(1)	1.1	ND(20)	ND(3)	--	ND(2)	--	ND(6)	*ND(6)*	--	--	ND(1)
		08/13/19	15	ND(1)	1.2	18	ND(2)	750	ND(2)	--	ND(6)	*ND(6)*	ND(6)	69	ND(0.5)
		09/18/20	69 JB	ND(1)	1	21	ND(2)	770	ND(2)	--	ND(6) UJ	*ND(6)*	ND(6)	36 J	0.39J/ND(0.5)U*
	MW-4	09/21/17	--	--	0.84	20	--	--	ND(2)	--	ND(6)	--	1.9	21	0.17
		09/13/18	--	ND(1)	0.76	20	ND(2)	--	ND(2)	--	ND(6)	--	ND(6)	ND(20)	ND(0.5)
		12/06/18	--	ND(1)	ND(1)	21	ND(3)	--	ND(2)	--	ND(6)	*ND(6)*	--	--	ND(1)
		08/13/19	11	ND(1)	0.71	21	ND(2)	380	ND(2)	--	ND(6)	*ND(6)*	ND(6)	ND(20)	ND(0.5)
		09/18/20	300	ND(1)	0.78 J	29	ND(2)	380	ND(2)	--	3.7 J	*ND(6)*	ND(6)	130	2.7
	MW-5	09/11/17	--	--	1	20	--	--	ND(2)	--	ND(6)	--	ND(6)	ND(20)	ND(0.5)
		09/17/18	--	ND(1)	1.1	21	ND(2)	--	ND(2)	--	ND(6)	--	ND(6)	ND(20)	ND(0.5)
		12/06/18	--	ND(1)	1	ND(20)	ND(3)	--	ND(2)	--	ND(6)	*ND(6)*	--	--	ND(1)
		08/14/19	9.8	ND(1)	0.99	30	ND(2)	760	ND(2)	--	ND(6)	*ND(6)*	ND(6)	ND(20)	ND(0.5)
		09/21/20	140	ND(1)	0.93 J	49	ND(2)	760	ND(2)	--	ND(6)	*ND(6)*	ND(6)	53 J+	0.11 J
	SMW-2	06/28/17	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/11/17	--	--	9.2	82	--	--	ND(2)	--	**390**	--	4.2	4000	2.7
		09/18/18	--	--	5.6	30	--	--	ND(2)	--	26	--	ND(6)	760	ND(2.5)
Selected Screening Level			19,914	6	10	2,000	4	3,949	5	NA	50	5.98	790	13,822	15

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-4. METALS (TOTAL) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Magnesium, Total (µg/L)	Manganese, Total (µg/L)	Mercury, Total (µg/L)	Molybdenum, Total (µg/L)	Nickel, Total (µg/L)	Potassium, Total (µg/L)	Selenium, Total (µg/L)	Silver, Total (µg/L)	Sodium, Total (µg/L)	Thallium, Total (µg/L)	Uranium, Total (µg/L)	Vanadium, Total (µg/L)	Zinc, Total (µg/L)
Wastewater Treatment Area	NAPIS-3	10/21/19	--	120	0.073	ND(8)	16	--	6	ND(5)	--	ND(0.5)	--	--	36
		03/04/20	--	220	ND(0.2) UJ	ND(8)	18	--	2.8	ND(5)	--	ND(0.5)	22	--	ND(10)
		09/22/20	--	250	ND(0.2) UJ	ND(8)	20 J+	--	ND(5)	ND(5)	--	ND(0.25) UJ	20	--	8 J
		12/17/20	19100	1610	ND(0.2)	*ND(100)*	22.6 J	ND(1000)	ND(5)	ND(5)	339000	ND(1)	ND(5)	--	ND(20) UJ
	OAPIS-1	10/21/19	--	1800	ND(0.2)	ND(8)	190	--	ND(5)	ND(5)	--	*ND(2.5)*	--	--	37
		03/04/20	--	1100	ND(0.2) UJ	16	180	--	1.6	3.6 J	--	ND(0.5)	**70**	--	18
		09/22/20	--	1200	ND(0.2) UJ	ND(8)	170 J+	--	1.1	2.1J/ND(5)U*	--	ND(0.25) UJ	**49 J**	--	23 J
		12/17/20	26500	1230	ND(0.2)	*ND(100)*	216	5530	ND(5)	ND(5)	1130000	ND(1)	**45**	--	20.5
	STP1-NW	10/22/19	--	43	ND(0.2)	14	ND(10)	--	5.7	ND(5)	--	*ND(2.5)*	--	--	39
		03/04/20	--	14	ND(0.2) UJ	17	ND(10)	--	4.8	2.4 J	--	ND(0.5)	**30**	--	12
		3Q2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		12/23/20	16500	10.1	ND(0.2)	*ND(100)*	ND(6)	7370	ND(5)	ND(5)	1610000	ND(1)	28.4	--	ND(20)
	STP1-SW	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
	Oil Sump LDU	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	GWM-2	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	GWM-3	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-59	10/15/19	--	370	ND(0.2)	17	29	--	ND(10)	3	--	*ND(2.5)*	--	--	18
		03/03/20	--	290	ND(0.2)	16	23	--	ND(5)	4.7 J	--	*ND(2.5)*	**130**	--	9.3 J
		09/19/20	--	1500	ND(0.2)	ND(8) UJ	66	--	8.6 J	1.5 J	--	*ND(2.5) UJ*	**140**	--	130
		12/23/20	54000	212 J	ND(0.2)	*ND(100)*	31.5	5770	ND(5)	ND(5)	2740000	ND(1)	**138**	--	ND(20)
	OW-60	10/15/19	--	470	ND(0.2)	ND(8)	53	--	18	ND(5)	--	*ND(2.5)*	--	--	58
		03/03/20	--	280	ND(0.2)	16	170	--	16	1.5 J	--	0.077 J	**53**	--	82
		09/21/20	--	290	ND(0.2)	ND(8)	68 J+	--	14	ND(5)	--	ND(0.25)	**54**	--	21 J
		12/11/20	16600	144	ND(0.2)	*ND(100)*	90.2	5030	15.2	ND(5)	1400000	ND(1)	**53.2**	--	ND(20)
Land Treatment Unit	MW-1	09/20/17	--	14	ND(0.2)	--	--	--	ND(1)	ND(0.5)	--	--	--	--	ND(10)
		09/13/18	--	10	0.17	--	--	--	ND(1)	ND(5)	--	--	9.4	2.3	ND(10)
		12/06/18	--	--	ND(0.2)	--	ND(10)	--	ND(1)	ND(5)	--	--	--	ND(50)	ND(20)
		08/12/19	--	4.6	0.054	9.5	ND(10)	--	ND(1)	ND(5)	--	ND(0.5)	10	--	ND(10)
		09/22/20	--	4.7	ND(0.2) UJ	ND(8)	ND(10)	--	ND(1)	ND(5)	--	ND(0.25)	9.4	--	ND(10) UJ
	MW-2	09/20/17	--	18	0.04	--	--	--	ND(1)	ND(0.5)	--	--	--	--	ND(10)
		09/13/18	--	2.6	0.14	--	--	--	ND(1)	ND(5)	--	--	8	ND(50)	ND(10)
		12/06/18	--	--	ND(0.2)	--	ND(10)	--	ND(1)	ND(5)	--	--	--	ND(50)	ND(20)
		08/13/19	--	2.7	0.046	8.5	ND(10)	--	ND(1)	ND(5)	--	ND(0.5)	8.6	--	7.5
		09/18/20	--	21	ND(0.2) UJ	8.6	ND(10) UJ	--	ND(1)	ND(5)	--	ND(0.25) UJ	9.4	--	ND(10)
	MW-4	09/21/17	--	6.9	ND(0.2)	--	--	--	ND(1)	ND(0.5)	--	--	--	--	ND(10)
		09/13/18	--	5.9	0.11	--	--	--	ND(1)	ND(5)	--	--	14	0.91	ND(10)
		12/06/18	--	--	ND(0.2)	--	ND(10)	--	ND(1)	ND(5)	--	--	--	ND(50)	ND(20)
		08/13/19	--	5.6	ND(0.2)	8.1	ND(10)	--	ND(1)	ND(5)	--	ND(0.5)	13	--	ND(10)
		09/18/20	--	120	ND(0.2)	ND(8)	ND(10) UJ	--	ND(1) UJ	ND(5)	--	ND(0.25)	16	--	ND(10)
	MW-5	09/11/17	--	4.3	ND(0.2)	--	--	--	ND(1)	ND(5)	--	--	9.9	--	ND(10)
		09/17/18	--	4.5	0.096	--	--	--	ND(1)	ND(5)	--	--	8.2	ND(50)	ND(10)
		12/06/18	--	--	ND(0.2)	--	ND(10)	--	ND(1)	ND(5)	--	--	--	ND(50)	ND(20)
		08/14/19	--	5.9	ND(0.2)	8	ND(10)	--	ND(1)	ND(5)	--	ND(0.5)	9	--	ND(10)
		09/21/20	--	13	ND(0.2)	ND(8)	ND(10)	--	ND(1)	ND(5)	--	ND(0.25)	9	--	ND(10) UJ
	SMW-2	06/28/17	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/11/17	--	490	ND(0.2)	--	--	--	24	ND(5)	--	--	**120**	--	8
		09/18/18	--	340	0.06	--	--	--	ND(5)	7.3	--	--	**91**	--	6.5
Selected Screening Level			NA	2,017	2	98.7	372	NA	50	50	NA	2	30	63.1	5,960

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-4. METALS (TOTAL) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Aluminum, Total (µg/L)	Antimony, Total (µg/L)	Arsenic, Total (µg/L)	Barium, Total (µg/L)	Beryllium, Total (µg/L)	Boron, Total (µg/L)	Cadmium, Total (µg/L)	Calcium, Total (µg/L)	Chromium, Total (µg/L)	Cobalt, Total (µg/L)	Copper, Total (µg/L)	Iron, Total (µg/L)	Lead, Total (µg/L)
Land Treatment Unit	SMW-2	08/22/19	850	ND(5)	2.6	23	0.39	1300	ND(2)	--	47	*ND(6)*	ND(6)	520	0.59
		09/19/20	700	ND(5)	2.3 J	21	ND(2)	1300	ND(2)	--	20 J	*ND(6)*	ND(6)	390	0.27J/ND(2.5)U*
	SMW-4	06/28/17	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/11/17	--	--	3.2	65	--	--	ND(2)	--	**60**	--	3.5	3100	3.2
		09/12/18	--	ND(1)	3.1	27	ND(2)	--	ND(2)	--	17	--	ND(6)	710	0.88
		12/06/18	--	ND(1)	2.9	32	ND(3)	--	ND(2)	--	11	**19**	--	--	1
		08/13/19	900	ND(1)	3.4	23	ND(2)	1600	ND(2)	--	3.4	**9.2**	ND(6)	410	0.37
		09/20/20	3700	ND(1)	2.6	49	ND(2)	1700	ND(2)	--	15	**8.7**	ND(6)	1700 J+	1.9
Evaporation Ponds	EP-2	09/06/18	--	--	**11**	160	--	--	ND(2)	--	2.4	--	10	160	ND(2.5)
		04/30/19	170	ND(5)	6.8	250	0.41	500	ND(2)	--	1.7	*ND(6)*	5.7	530	ND(2.5)
		11/21/19	180	ND(5)	9.4	140	ND(2)	330	ND(2)	--	8.3	*ND(6)*	10	2900	ND(2.5)
		09/16/20	360	0.75 J	6.4	220	ND(2)	450	ND(2)	--	3.4 J	*ND(6)*	ND(6)	2300 J+	0.29 J
		09/17/20	ND(20)	ND(1)	ND(1)	ND(3)	ND(2)	ND(40)	ND(2)	--	ND(6)	*ND(6)*	ND(6)	ND(50)	0.043 J
		12/21/20	ND(200)	ND(2)	5.37	33.3 J	ND(3)	ND(100) UJ	ND(5)	--	ND(10)	*ND(10)*	ND(20)	366 J	ND(1)
	EP-3	09/06/18	--	--	**13**	150	--	--	ND(2)	--	2.2	--	7.5	180	ND(2.5)
		04/30/19	160	ND(5)	8.7	240	0.46	450	ND(2)	--	1.9	*ND(6)*	5.6	530	0.75
		11/20/19	250	ND(5)	9.2	150	ND(2)	470	ND(2)	--	14	*ND(6)*	7.5	9600	ND(2.5)
		09/16/20	5700 J+	0.87 J	9.6	320	ND(2)	480	ND(2)	--	7.4	*ND(6)*	8.8 J+	**14000 J+**	2.7
		12/21/20	1550	ND(2)	**10.1**	146	ND(3)	678	ND(5)	--	ND(10)	*ND(10)*	ND(20)	3050	ND(1)
	EP-4	09/06/18	--	--	**14**	160	--	--	ND(2)	--	ND(6)	--	6.7	170	ND(2.5)
		04/30/19	160	ND(5)	8.4	240	0.51	450	ND(2)	--	1.9	*ND(6)*	5.6	530	ND(2.5)
		09/17/20	ND(100)	*ND(10)*	**36**	270	*ND(10)*	1200	*ND(10)*	--	ND(30)	*ND(30)*	ND(30)	120J/ND(250)U*	ND(5)
		12/21/20	ND(200)	ND(2)	**21.8**	196	ND(3)	1030	ND(5)	--	ND(10)	*ND(10)*	ND(20)	797	ND(1)
	EP-5	09/06/18	--	--	**21**	160	--	--	ND(2)	--	4.4	--	4.5	94	ND(2.5)
		04/30/19	710	ND(5)	**14**	200	0.66	480	ND(2)	--	1.8	*ND(6)*	4.4	380	0.49
		09/17/20	140	*ND(10)*	**24**	240	*ND(10)*	970	*ND(10)*	--	ND(30)	*ND(30)*	ND(30)	270 JB	ND(5)
		12/21/20	386	ND(2)	**23.7**	178	ND(3)	975	ND(5)	--	ND(10)	*ND(10)*	ND(20)	370	1.14
	EP-6	09/07/18	--	--	**23**	160	--	--	ND(2)	--	3.7	--	ND(6)	81	ND(2.5)
		04/29/19	500	ND(5)	**14**	190	0.57	480	ND(2)	--	2.5	*ND(6)*	ND(6)	320	0.47
		09/17/20	ND(100)	*ND(10)*	**24**	240	*ND(10)*	900	*ND(10)*	--	ND(30)	*ND(30)*	ND(30)	86J/ND(250)U*	ND(5)
		12/21/20	367	2.31	**30**	246	ND(3)	970	ND(5)	--	ND(10)	*ND(10)*	ND(20)	262	ND(1)
	EP-7	09/07/18	--	--	**160**	190	--	--	ND(2)	--	17	--	ND(30)	160	*ND(25)*
		04/29/19	210	*ND(20)*	**110**	180	2.8	3700	*ND(10)*	--	ND(30)	*ND(30)*	ND(30)	94	ND(10)
		11/20/19	360	*ND(100)*	**310**	170	*ND(40)*	**11000**	*ND(40)*	--	*ND(120)*	*ND(120)*	89	280	*ND(50)*
		09/17/20	3400	*ND(50)*	**370**	140	*ND(10)*	**12000**	*ND(10)*	--	16 J	*ND(30)*	ND(30)	1100	*ND(25)*
		12/21/20	ND(1000)	*ND(20)*	**464**	217	*ND(15)*	**11100**	*ND(25)*	--	**55.8**	*ND(50)*	ND(100)	ND(1000)	ND(10)
	EP-8	09/07/18	--	--	**96**	200	--	--	ND(2)	--	9	--	29	62	ND(10)
		04/29/19	200	*ND(20)*	**120**	190	3.1	3700	*ND(10)*	--	ND(30)	*ND(30)*	22	130	ND(10)
		11/20/19	220	*ND(100)*	**260**	210	*ND(40)*	**8600**	*ND(40)*	--	*ND(120)*	*ND(120)*	110	230	*ND(50)*
		09/17/20	490	*ND(100)*	**320**	240	*ND(10)*	**9200**	*ND(10)*	--	17 J	*ND(30)*	ND(30)	260 JB	*ND(50)*
		12/22/20	ND(1000) UJ	*ND(20)*	**552**	ND(50)	*ND(15)*	**18100**	*ND(25)*	--	**75.8**	*ND(50)*	ND(100)	ND(1000)	ND(10)
	EP-9	09/07/18	--	--	**82**	180	--	--	ND(2)	--	6.9	--	ND(6)	70	*ND(25)*
		04/29/19	300	*ND(20)*	**82**	170	2.9	2200	*ND(10)*	--	ND(30)	*ND(30)*	22	180	ND(10)
		11/20/19	140	*ND(100)*	**100**	160	*ND(20)*	2900	*ND(20)*	--	*ND(60)*	*ND(60)*	73	170	*ND(50)*
		09/17/20	110	*ND(50)*	**240**	260	*ND(10)*	**7100**	*ND(10)*	--	ND(30)	*ND(30)*	ND(30)	120J/ND(250)U*	*ND(25)*
		12/21/20	ND(1000)	*ND(20)*	**380**	304	*ND(15)*	**8680**	*ND(25)*	--	**50.6**	*ND(50)*	ND(100)	ND(1000)	ND(10)
	EP-11	09/07/18	--	--	**960**	27	--	--	*ND(10)*	--	**64**	--	ND(30)	260	*ND(50)*
		04/29/19	500	**9**	**120**	200	2.7	**4000**	*ND(10)*	--	ND(30)	*ND(30)*	20	190	1.1
		12/22/20	1170 J	*ND(20)*	**423 J**	ND(50)	*ND(15)*	**18600**	*ND(25)*	--	**95.9**	*ND(50)*	ND(100)	ND(1000)	ND(10)
	EP-12A	09/07/18	--	--	**52**	190	--	--	ND(2)	--	18	--	12	12000	5.4
		11/21/19	1200	ND(5)	**13**	130	ND(2)	710	ND(2)	--	11	*ND(6)*	ND(6)	6300	0.61
Selected Screening Level			19,914	6	10	2,000	4	3,949	5	NA	50	5.98	790	13,822	15

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-4. METALS (TOTAL) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Magnesium, Total (µg/L)	Manganese, Total (µg/L)	Mercury, Total (µg/L)	Molybdenum, Total (µg/L)	Nickel, Total (µg/L)	Potassium, Total (µg/L)	Selenium, Total (µg/L)	Silver, Total (µg/L)	Sodium, Total (µg/L)	Thallium, Total (µg/L)	Uranium, Total (µg/L)	Vanadium, Total (µg/L)	Zinc, Total (µg/L)
Land Treatment Unit	SMW-2	08/22/19	--	370	0.094	ND(8)	47	--	ND(5)	5.1	--	*ND(2.5)*	**92**	--	ND(10)
		09/19/20	--	340	ND(0.2) UJ	ND(8)	41 J	--	ND(5)	5.3	--	ND(1.2) UJ	**85**	--	ND(10)
	SMW-4	06/28/17	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/11/17	--	68	ND(0.2)	--	--	--	0.97	ND(5)	--	--	**33**	--	16
		09/12/18	--	22	ND(0.2)	--	--	--	ND(1)	ND(5)	--	--	**30**	49	5.8
		12/06/18	--	--	ND(0.2)	--	ND(10)	--	ND(1)	ND(5)	--	--	--	50	ND(20)
		08/13/19	--	8.6	0.054	10	4.1	--	ND(1)	ND(5)	--	ND(0.5)	**30**	--	5.8
		09/20/20	--	42	ND(0.2)	9.1	19 J+	--	ND(1)	ND(5)	--	ND(0.25)	24	--	8.8 J
	EP-2	09/06/18	--	220	0.13	--	--	--	5.7	6.5	--	--	1.5	--	6
		04/30/19	--	290	0.088	8.4	10	--	8.2	4.7	--	*ND(2.5)*	2.1	--	12
		11/21/19	--	150	ND(0.2)	71	16	--	3.2	2.6	--	*ND(2.5)*	1.6	--	37
		09/16/20	--	120	ND(0.2)	ND(8)	56	--	2.7	2.8 J	--	ND(0.25)	0.91	--	17
		09/17/20	--	ND(2)	ND(0.2)	ND(8)	ND(10) UJ	--	ND(1)	ND(5)	--	ND(0.25)	ND(0.5)	--	ND(10) UJ
		12/21/20	--	65.7 J	ND(0.2)	*ND(100)*	16.6	--	ND(5) UJ	ND(5)	--	ND(1)	ND(5)	--	ND(20)
	EP-3	09/06/18	--	230	0.16	--	--	--	6	6.9	--	--	1.3	--	12
		04/30/19	--	360	0.11	7.5	14	--	8.7	5.8	--	*ND(2.5)*	2	--	8.4
		11/20/19	--	340	0.22	63	57	--	5.5	ND(5)	--	*ND(2.5)*	2.9	--	39
		09/16/20	--	250	ND(0.2)	ND(8)	61	--	5.3	2.9 J	--	ND(0.25)	1.8	--	53
		12/21/20	--	281	ND(0.2)	*ND(100)*	124	--	ND(5) UJ	ND(5)	--	ND(1)	ND(5)	--	ND(20)
	EP-4	09/06/18	--	210	0.12	--	--	--	6	7.3	--	--	1.1	--	ND(10)
		04/30/19	--	360	0.098	ND(8)	11	--	6.8	5.6	--	*ND(2.5)*	2.1	--	8.2
		09/17/20	--	1300	ND(0.2)	ND(40)	50	--	ND(10)	ND(25)	--	*ND(2.5)*	1.7 J	--	ND(50)
		12/21/20	--	739	ND(0.2)	*ND(100)*	91.5	--	ND(5) UJ	ND(5)	--	ND(1)	ND(5)	--	ND(20)
	EP-5	09/06/18	--	160	0.05	--	--	--	ND(5)	7.4	--	--	1.2	--	4.3
		04/30/19	--	480	0.068	ND(8)	14	--	5.3	6.9	--	*ND(2.5)*	2.3	--	ND(10)
		09/17/20	--	940	ND(0.2)	ND(40)	51	--	ND(10)	ND(25)	--	*ND(2.5)*	2.4 J	--	ND(50)
		12/21/20	--	959	ND(0.2)	*ND(100)*	60.5	--	ND(5) UJ	ND(5)	--	ND(1)	ND(5)	--	ND(20)
	EP-6	09/07/18	--	150	0.061	--	--	--	ND(5)	8.7	--	--	1.2	--	ND(10)
		04/29/19	--	470	0.064	ND(8)	13	--	4	7.1	--	*ND(2.5)*	2.3	--	ND(10)
Evaporation Ponds		09/17/20	--	770	ND(0.2)	ND(40)	61	--	ND(10)	ND(25)	--	*ND(2.5)*	2.8 J	--	ND(50)
		12/21/20	--	975	ND(0.2)	*ND(100)*	52.4	--	ND(5) UJ	ND(5)	--	ND(1)	ND(5)	--	ND(20)
	EP-7	09/07/18	--	800	ND(0.2)	--	--	--	ND(50)	16	--	--	5.1	--	4.8
		04/29/19	--	590	ND(0.2)	ND(40)	120	--	12	17	--	*ND(10)*	4.8	--	ND(50)
		11/20/19	--	1900	ND(0.2)	*ND(160)*	350	--	*ND(500)*	*ND(100)*	--	*ND(50)*	*ND(50)*	--	ND(200)
		09/17/20	--	**4300**	ND(0.2)	ND(40)	340	--	ND(50)	19 J	--	*ND(12)*	9.6 J	--	ND(50)
		12/21/20	--	**3520**	ND(0.2)	*ND(500)*	**414**	--	ND(50) UJ	ND(25)	--	*ND(10)*	*ND(50)*	--	ND(100)
	EP-8	09/07/18	--	1000	ND(0.2)	--	--	--	ND(20)	15	--	--	3.1	--	ND(10)
		04/29/19	--	610	ND(0.2)	ND(40)	110	--	10	17	--	*ND(10)*	4.6	--	ND(50)
		11/20/19	--	**5100**	ND(0.2)	*ND(160)*	230	--	*ND(500)*	39	--	*ND(50)*	*ND(50)*	--	ND(200)
		09/17/20	--	**3700**	ND(0.2)	ND(40)	260	--	ND(50)	9.9 J	--	*ND(25)*	9 J	--	ND(50)
		12/22/20	--	**5240**	ND(0.2)	*ND(500)*	**633**	--	ND(50)	ND(25)	--	*ND(10)*	*ND(50)*	--	ND(100)
	EP-9	09/07/18	--	1300	ND(0.2)	--	--	--	ND(50)	14	--	--	ND(25)	--	5.5
		04/29/19	--	380	ND(0.2)	ND(40)	68	--	11	16	--	*ND(10)*	5.5	--	ND(50)
		11/20/19	--	1900	ND(0.2)	ND(80)	280	--	*ND(200)*	31	--	*ND(50)*	*ND(50)*	--	91
		09/17/20	--	**3900**	ND(0.2)	ND(40)	130	--	ND(50)	19 J	--	*ND(12)*	7.8 J	--	ND(50)
		12/21/20	--	**4510**	ND(0.2)	*ND(500)*	236	--	**60 J-**	ND(25)	--	*ND(10)*	*ND(50)*	--	ND(100)
	EP-11	09/07/18	--	**9000**	ND(0.2)	--	--	--	*ND(100)*	10	--	--	13	--	ND(50)
		04/29/19	--	630	ND(0.2)	ND(40)	130	--	17	19	--	*ND(10)*	4.5	--	ND(50)
		12/22/20	--	**9550**	ND(0.2)	*ND(500)*	**674**	--	*ND(500)*	ND(25)	--	*ND(10)*	*ND(50)*	--	ND(100)
	EP-12A	09/07/18	--	**3100**	ND(0.2)	--	--	--	22	16	--	--	17	--	21
		11/21/19	--	570	ND(0.2)	33	87	--	ND(10)	2.2	--	*ND(2.5)*	1.9	--	22
Selected Screening Level			NA	2,017	2	98.7	372	NA	50	50	NA	2	30	63.1	5,960

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-4. METALS (TOTAL) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Aluminum, Total (µg/L)	Antimony, Total (µg/L)	Arsenic, Total (µg/L)	Barium, Total (µg/L)	Beryllium, Total (µg/L)	Boron, Total (µg/L)	Cadmium, Total (µg/L)	Calcium, Total (µg/L)	Chromium, Total (µg/L)	Cobalt, Total (µg/L)	Copper, Total (µg/L)	Iron, Total (µg/L)	Lead, Total (µg/L)
Evaporation Ponds	EP-12A	12/22/20	**34700 J**	*ND(10)*	**22.4**	347	ND(3)	1360	ND(5)	--	41	**17.1**	ND(20)	**28800**	**17.3**
	EP-12B	09/07/18	--	--	**17**	160	--	--	ND(2)	--	3.8	--	ND(6)	180	ND(5)
		04/29/19	740	ND(5)	**21**	97	0.65	1100	ND(2)	--	2.8	*ND(6)*	4.1	490	0.38
		11/21/19	370	ND(5)	9.8	140	ND(2)	540	ND(2)	--	13	*ND(6)*	4.8	8000	ND(2.5)
		09/18/20	460	*ND(10)*	**22**	260	1.2 J	950	ND(2)	--	4.3 J	*ND(6)*	ND(6)	420	ND(5)
		12/22/20	409 J	*ND(10)*	**16**	195	ND(3)	905	ND(5)	--	ND(10)	*ND(10)*	ND(20)	956	ND(5)
	STP-1 to EP-2	08/31/18	--	--	8.7	180	--	--	ND(2)	--	2.5	--	12	360	0.3
		11/08/18	--	--	**15**	180	--	--	ND(2)	--	ND(6)	--	7.4	1100	1.2
		02/07/19	--	*ND(10)*	5.5	280	ND(2)	--	ND(2)	--	2.1	--	13	760	ND(5)
		05/29/19	430	ND(5)	8.2	260	*ND(10)*	430	*ND(10)*	--	ND(30)	*ND(30)*	ND(30)	1900	ND(2.5)
		10/09/19	270	ND(5)	5.3	150	ND(2)	240	ND(2)	--	5.3	4.8	ND(6)	7700	ND(2.5)
		11/21/19	180	ND(5)	9	150	ND(2)	340	ND(2)	--	9.7	*ND(6)*	11	3000	ND(2.5)
		09/16/20	1400	ND(5)	3.6	74	1.4 J	410	ND(2)	--	26	**6.2**	9.9 JB	**34000 J+**	0.43 J
		12/21/20	901	*ND(20)*	ND(10)	87.6	ND(3)	238	ND(5)	--	ND(10)	*ND(10)*	36.3	1840	ND(10)
Western Boundary	BW-1A	3Q2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	BW-1B	3Q2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	BW-1C	09/13/17	--	--	0.38	20	--	--	ND(2)	--	4.5	--	2.7	130	ND(0.5)
		09/12/18	--	ND(1)	ND(1)	37	ND(2)	--	ND(2)	--	4.1	--	ND(6)	290	0.77
		08/14/19	100	ND(1)	ND(1)	19	ND(2)	1700	ND(2)	--	2.6	*ND(6)*	ND(6)	54	ND(0.5)
		09/20/20	60 JB	ND(1)	ND(1)	17	ND(2)	1600	ND(2)	--	ND(6)	*ND(6)*	ND(6)	47 J-	ND(0.5)
	BW-2A	09/13/17	--	--	7.5	160	--	--	ND(2)	--	3.6	--	3.3	1200	0.68
		09/12/18	--	ND(1)	7.8	130	0.29	--	ND(2)	--	ND(6)	--	ND(6)	430	ND(0.5)
		08/14/19	270	ND(1)	8.5	150	ND(2)	850	ND(2)	8600	ND(6)	*ND(6)*	ND(6)	490	0.12
		09/20/20	610	ND(1)	9	150	ND(2)	800	ND(2)	--	2.6 J	**8.8**	ND(6)	740 J-	0.29 J
	BW-2B	09/13/17	--	--	2.1	87	--	--	ND(2)	--	7.8	--	4.2	3200	2
		09/12/18	--	ND(1)	0.77	37	ND(2)	--	ND(2)	--	ND(6)	--	ND(6)	240	ND(0.5)
		08/14/19	4500	ND(1)	0.98	57	ND(2)	1900	ND(2)	--	2.7	*ND(6)*	ND(6)	1600	0.92
		09/21/20	250	ND(1)	0.84 J	40	ND(2)	1800	ND(2)	--	ND(6)	*ND(6)*	ND(6)	280 J+	0.054 J
	BW-2C	09/13/17	--	--	0.76	25	--	--	ND(2)	--	9	--	3.5	410	0.5
		09/18/18	--	--	ND(5)	50	--	--	ND(2)	--	6	--	ND(6)	2000	2.4
		08/14/19	12000	ND(1)	2.3	86	0.32	1200	ND(2)	--	18	*ND(6)*	ND(6)	3900	4.4
		09/22/20	**94000 J+**	ND(1)	5.1	550	3.3	1300	ND(2)	--	50	**17**	6.3	**44000 J+**	**20**
	BW-3A	09/14/20	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-3B	09/13/17	--	--	5.2	120	--	--	ND(2)	--	1.8	--	2.7	1100	0.75
		09/12/18	--	ND(1)	4.9	110	ND(2)	--	ND(2)	--	2.4	--	ND(6)	870	0.35
		08/14/19	86	ND(1)	6.1	110	ND(2)	1100	ND(2)	--	ND(6)	*ND(6)*	ND(6)	430	0.094
		09/21/20	130	ND(1)	5.7	110	ND(2)	1100	ND(2)	--	ND(6)	*ND(6)*	ND(6)	450 J+	0.07 J
	BW-3C	09/13/17	--	--	1.6	32	--	--	ND(2)	--	15	--	4.5	620	0.4
		09/18/18	--	--	2.2	240	--	--	ND(2)	--	27	--	ND(6)	3900	3
		08/14/19	6600	ND(1)	1.4	80	ND(2)	1000	ND(2)	--	16	*ND(6)*	4.1	1700	1.4
		09/22/20	**31000 J+**	ND(1)	1.2	180	ND(2)	1100	ND(2)	--	16	5.2 J	ND(6)	8200 J+	2.7
	BW-4A	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-4B	03/10/20	13000	ND(1)	9.8	120	0.38 J	2200	ND(2)	--	19	*ND(6)*	7.3	6900	1.7
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	BW-5A	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-5B	10/16/19	270	ND(1)	2.1	140	ND(2)	410	ND(2)	--	2.8	*ND(6)*	ND(6)	120	ND(0.5)
		03/05/20	460	ND(1)	ND(5)	210	ND(2)	380	ND(2)	--	2 J	*ND(6)*	ND(6)	140	0.096 J
		09/20/20	1300 J	ND(1)	1	210	ND(2)	340	ND(2)	--	4.9 J	*ND(6)*	ND(6)	480 J-	0.18 J
		12/11/20	629	ND(2)	ND(1)	229	ND(3)	342	ND(5)	8170 JB	ND(10)	*ND(10)*	ND(20)	ND(2000)	ND(1)
	BW-5C	10/16/19	2300	ND(5)	ND(5)	130	0.36	520	ND(2)	--	ND(6)	*ND(6)*	ND(6)	990	0.38
		03/05/20	13000 J	ND(1)	0.74 J	230 J	0.65 J	570	ND(2)	--	6.7	*ND(6)*	ND(6)	3800 J	2.7 J
		09/19/20	14000 J	ND(1)	1.1	250 J	ND(2)	520	ND(2)	--	30 J	*ND(6)*	ND(6)	4400 J	3.2
		12/09/20	10600	ND(2)	ND(1)	256	ND(3)	515	ND(5)	88900	17.4	*ND(10)*	ND(20)	4020	1.81
Deep	OW-01	10/16/19	120	ND(1)	ND(5)	36	1.6	300	ND(2)	--	2.1	*ND(6)*	ND(6)	34	ND(0.5)
		03/09/20	7300	ND(1)	1.1	59	ND(2)	350	ND(2)	--	19	*ND(6)*	ND(6)	3100	1.8
		09/20/20	12000	ND(1)	2.3	160	1 J	350	ND(2)	--	46	3.2 J	ND(6)	8500 J-	10
		12/11/20	290	ND(2)	ND(1)	42.9	ND(3)	349	ND(5)	2560/ND(2560)U*	ND(10)	*ND(10)*	ND(20)	423	ND(1)
	OW-10	10/17/19	ND(20)	ND(5)	ND(5)	66	1.7	450	ND(2)	--	ND(6)	*ND(6)*	ND(6)	9.9	ND(2.5)
		03/04/20	ND(20)	ND(1)	ND(5)	61	0.52 J	540	ND(2)	--	ND(6)	*ND(6)*	ND(6)	22	ND(2.5)
Selected Screening Level			19,914	6	10	2,000	4	3,949	5	NA	50	5.98	790	13,822	15

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-4. METALS (TOTAL) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Magnesium, Total (µg/L)	Manganese, Total (µg/L)	Mercury, Total (µg/L)	Molybdenum, Total (µg/L)	Nickel, Total (µg/L)	Potassium, Total (µg/L)	Selenium, Total (µg/L)	Silver, Total (µg/L)	Sodium, Total (µg/L)	Thallium, Total (µg/L)	Uranium, Total (µg/L)	Vanadium, Total (µg/L)	Zinc, Total (µg/L)
Evaporation Ponds	EP-12A	12/22/20	--	**5430**	ND(0.2) UJ	*ND(100)*	219	--	ND(25)	ND(5)	--	*ND(5)*	ND(25)	--	77.8
	EP-12B	09/07/18	--	270	0.066	--	--	--	5.9	6.8	--	--	1.7	--	3.5
		04/29/19	--	110	ND(0.2)	11	30	--	7.8	4.4	--	*ND(2.5)*	1.8	--	ND(10)
		11/21/19	--	400	ND(0.2)	50	64	--	3.7	ND(5)	--	*ND(2.5)*	2.5	--	32
		09/18/20	--	1200	ND(0.2)	ND(8)	39 J-	--	ND(10)	16 J	--	*ND(2.5)*	1.8 J	--	ND(10)
		12/22/20	--	1050	ND(0.2) UJ	*ND(100)*	126	--	ND(25)	ND(5)	--	*ND(5)*	ND(25)	--	ND(20)
	STP-1 to EP-2	08/31/18	--	400	0.095	--	--	--	8.4	2.2	--	--	0.3	--	26
		11/08/18	--	210	0.49	--	--	--	9.7	ND(5)	--	--	5.6	--	51
		02/07/19	--	230	0.14	--	--	--	9.5	5.1	--	*ND(5)*	5.7	--	18
		05/29/19	--	230	ND(0.2)	ND(40)	ND(50)	--	5.5	ND(25)	--	*ND(2.5)*	0.65	--	ND(50)
		10/09/19	--	240	0.16	23	26	--	2.8	ND(5)	--	*ND(2.5)*	1.7	--	39
		11/21/19	--	150	ND(0.2)	71	18	--	3	2	--	*ND(2.5)*	1.7	--	39
		09/16/20	--	760	0.17 J+	ND(8)	**590**	--	3.1	ND(5)	--	ND(0.25)	0.48 J	--	150
		12/21/20	--	283	ND(0.2)	*ND(100)*	8.81 J	--	ND(50) UJ	ND(5)	--	*ND(10)*	*ND(50)*	--	64.3
Western Boundary	BW-1A	3Q2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	BW-1B	3Q2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	BW-1C	09/13/17	--	15	ND(0.2)	--	--	--	ND(1)	ND(5)	--	--	9.9	--	ND(10)
		09/12/18	--	38	ND(0.2)	--	--	--	ND(1)	ND(5)	--	--	8.1	1.2	ND(10)
		08/14/19	--	10	ND(0.2)	12	ND(10)	--	ND(1)	ND(5)	--	ND(0.5)	9.4	--	ND(10)
		09/20/20	--	9.5	ND(0.2)	12	ND(10)	--	ND(1)	ND(5)	--	ND(0.25) UJ	8.8	--	ND(10)
	BW-2A	09/13/17	--	170	ND(0.2)	--	--	--	1.9	ND(5)	--	--	ND(0.5)	--	ND(10)
		09/12/18	--	140	ND(0.2)	--	--	--	ND(1)	ND(5)	--	--	ND(0.5)	0.93	ND(10)
		08/14/19	3200	150	ND(0.2)	8.3	ND(10)	300	ND(1)	ND(5)	370000	ND(0.5)	ND(0.5)	--	ND(10)
		09/20/20	--	170	ND(0.2)	ND(8)	ND(10)	--	ND(1)	ND(5)	--	ND(0.25) UJ	0.098 J	--	ND(10) UJ
	BW-2B	09/13/17	--	220	ND(0.2)	--	--	--	2.9	ND(5)	--	--	14	--	7
		09/12/18	--	150	ND(0.2)	--	--	--	ND(1)	ND(5)	--	--	10	3.1	ND(10)
		08/14/19	--	180	ND(0.2)	20	ND(10)	--	ND(1)	ND(5)	--	ND(0.5)	12	--	11
		09/21/20	--	140	ND(0.2)	19	ND(10)	--	ND(1)	ND(5)	--	ND(0.25)	11	--	ND(10)
	BW-2C	09/13/17	--	39	ND(0.2)	--	--	--	0.92	ND(5)	--	--	4.7	--	5.1
		09/18/18	--	59	0.045	--	--	--	ND(5)	3.5	--	--	5.5	--	15
		08/14/19	--	96	ND(0.2)	8.8	12	--	0.77	ND(5)	--	0.4	7.2	--	24
		09/22/20	--	930	ND(0.2) UJ	ND(8)	46 J+	--	3.4	ND(5)	--	0.37	9.1	--	76 J
	BW-3A	09/14/20	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-3B	09/13/17	--	120	ND(0.2)	--	--	--	1.6	ND(5)	--	--	0.2	--	4
		09/12/18	--	120	ND(0.2)	--	--	--	ND(1)	ND(5)	--	--	0.16	2.6	ND(10)
		08/14/19	--	110	ND(0.2)	13	ND(10)	--	ND(1)	ND(5)	--	ND(0.5)	0.12	--	ND(10)
		09/21/20	--	100	ND(0.2)	11	ND(10)	--	ND(1)	ND(5)	--	ND(0.25)	0.1 J	--	ND(10)
	BW-3C	09/13/17	--	25	ND(0.2)	--	--	--	ND(5)	ND(5)	--	--	1.6	--	12
		09/18/18	--	160	0.045	--	--	--	ND(5)	12	--	--	1.7	--	17
		08/14/19	--	56	ND(0.2)	13	11	--	ND(1)	1.5	--	ND(0.5)	1.5	--	13
		09/22/20	--	140	ND(0.2) UJ	7.2 J	12 J+	--	0.7 J	ND(5)	--	ND(0.25)	1.4	--	25 J
	BW-4A	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-4B	03/10/20	--	88	ND(0.2)	22	13	--	0.52 J-	ND(5)	--	ND(0.5)	**76**	--	12
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	BW-5A	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-5B	10/16/19	--	3.7	ND(0.2)	ND(8)	ND(10)	--	1.9	ND(5)	--	ND(0.5)	**32**	--	ND(10)
		03/05/20	--	19	ND(0.2)	ND(8)	ND(10)	--	ND(5)	ND(5)	--	ND(0.5)	**32**	--	ND(10)
		09/20/20	--	20	0.17 J+	ND(8)	4.3 J	--	0.9 J	ND(5)	--	ND(0.25) UJ	**31**	--	ND(10)
		12/11/20	964 JB	19.9	ND(0.2)	*ND(100)*	ND(6)	1620	ND(5)	ND(5)	589000	ND(1)	29.9	--	ND(20)
	BW-5C	10/16/19	--	40	0.066	ND(8)	ND(10)	--	ND(5)	1.8	--	*ND(2.5)*	**40**	--	ND(10)
		03/05/20	--	110 J	0.18 J	ND(8)	8.9 J	--	1.1	2.2 J	--	ND(0.5)	**42**	--	11 J
		09/19/20	--	110 J	0.72 J	ND(8)	23 J	--	1.7	1.4 J	--	ND(1.2) UJ	**53**	--	9.6J/ND(10)U*
		12/09/20	14600	94.7	0.474 J	*ND(100)*	13.4 J	4800	ND(5)	ND(5)	1200000	ND(1)	**46**	--	ND(20)
Deep	OW-01	10/16/19	--	0.78	ND(0.2)	ND(8)	ND(10)	--	2.5	ND(5)	--	ND(0.5)	**40**	--	ND(10)
		03/09/20	--	53	ND(0.2)	ND(8)	12	--	2.3 J-	ND(5)	--	ND(0.5)	**38**	--	8.8 J
		09/20/20	--	360	0.16 J+	ND(8)	40	--	3.5	ND(5)	--	ND(0.25) UJ	**35**	--	57
		12/11/20	ND(500)	13.4	ND(0.2)	*ND(100)*	ND(6)	ND(1000)	ND(5)	ND(5)	317000	ND(1)	**33.9**	--	ND(20)
	OW-10	10/17/19	--	150	ND(0.2)	ND(8)	6.7	--	8.9	3.9	--	*ND(2.5)*	**55**	--	ND(10)
		03/04/20	--	290	ND(0.2)	ND(8)	ND(10)	--	7.8	3.4 J	--	*ND(2.5)*	**50**	--	ND(10)
Selected Screening Level			NA	2,017	2	98.7	372	NA	50	50	NA	2	30	63.1	5,960

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-4. METALS (TOTAL) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Aluminum, Total (µg/L)	Antimony, Total (µg/L)	Arsenic, Total (µg/L)	Barium, Total (µg/L)	Beryllium, Total (µg/L)	Boron, Total (µg/L)	Cadmium, Total (µg/L)	Calcium, Total (µg/L)	Chromium, Total (µg/L)	Cobalt, Total (µg/L)	Copper, Total (µg/L)	Iron, Total (µg/L)	Lead, Total (µg/L)
Deep	OW-11	09/20/20	12 J	ND(1)	0.72 J	56	ND(2)	520	ND(2)	--	ND(6)	*ND(6)*	ND(6)	38 J+	0.11 J
		12/11/20	ND(200)	ND(2)	ND(1)	53.5	ND(3)	527	ND(5)	59500	ND(10)	*ND(10)*	ND(20)	ND(200)	ND(1)
		09/18/17	--	--	2.9	7.7	--	--	ND(2)	--	ND(6)	--	ND(6)	11	ND(0.5)
		09/18/18	--	--	2	8	--	--	ND(2)	--	ND(6)	--	ND(6)	12	ND(0.5)
		08/20/19	4.5	ND(1)	2	7.3	ND(2)	1300	ND(2)	--	ND(6)	*ND(6)*	ND(6)	ND(20)	ND(0.5)
		09/20/20	13 J	ND(1)	1.7	7.8	ND(2)	1500	ND(2)	--	ND(6)	*ND(6)*	ND(6)	ND(50)	ND(0.5)
	OW-12	09/19/17	--	--	1.9	23	--	--	ND(2)	--	4.1	--	1.9	110	0.32
		09/19/18	--	--	2	38	--	--	ND(2)	--	4.6	--	ND(6)	430	1
		3Q2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		09/17/20	230	ND(1)	1.7	26	*ND(10)*	400	*ND(10)*	--	ND(30)	*ND(30)*	ND(30)	180 J	0.51
	OW-13	10/14/19	11	ND(1)	0.95	19	ND(2)	320	ND(2)	--	ND(6)	*ND(6)*	ND(6)	ND(20)	ND(0.5)
		03/02/20	ND(20)	ND(1)	0.78 J	19	ND(2)	340	ND(2)	--	ND(6)	*ND(6)*	ND(6)	12 J	ND(0.5)
		09/17/20	51 J	ND(1)	0.77 J	22	*ND(10)*	310	*ND(10)*	--	ND(30)	*ND(30)*	ND(30)	ND(250)	0.074 J
		12/09/20	ND(200)	ND(2)	ND(1)	19.6	ND(3)	326	ND(5)	--	ND(10)	*ND(10)*	ND(20)	ND(200)	ND(1)
	PW-2	09/10/14	--	--	3.1	12	--	--	ND(2)	--	ND(6)	--	ND(6)	42	ND(1)
		09/18/17	--	--	3.1	13	--	--	ND(2)	--	ND(6)	--	ND(6)	42	ND(0.5)
		09/21/20	ND(20)	ND(1)	3.4	13	ND(2)	51	ND(2)	--	ND(6)	*ND(6)*	ND(6)	27 J	ND(0.5)
		12/28/20	ND(200)	ND(2)	3.52	15.4	ND(3)	ND(100)	ND(5)	--	ND(10)	*ND(10)*	ND(20)	353	ND(1)
	PW-3	08/28/19	ND (20)	ND (1)	3.9	10	ND (2)	150	ND (2)	--	ND (6)	*ND (6)*	ND (6)	32	ND (0.5)
		09/21/20	ND(20)	ND(1)	3.7	9.5	ND(2)	130	ND(2)	--	ND(6)	*ND(6)*	ND(6)	170	0.31 J
		12/28/20	ND(200)	ND(2)	2.84 J	13.7	ND(3)	183	ND(5)	--	ND(10)	*ND(10)*	ND(20) UJ	213	ND(1) UJ
	PW-4	08/27/19	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/21/20	ND(20)	ND(1)	2.9	13	ND(2)	53	ND(2)	--	ND(6)	*ND(6)*	ND(6)	80	ND(0.5)
		12/28/20	ND(200)	ND(2)	1.71	15.6	ND(3)	ND(100)	ND(5)	--	ND(10)	*ND(10)*	ND(20)	ND(200)	ND(1)
Selected Screening Level			19,914	6	10	2,000	4	3,949	5	NA	50	5.98	790	13,822	15

Notes:
-- = Not Measured
NA = Not Applicable
ND(x) = Not detected, where x = the reporting limit
NS = Not sampled
NS - Dry = Not sampled due to dry well
NS - H2S = Not sampled due to presense of Hydrogen Sulfide
NS - RW = Not sampled due to recovery well in place
NS - SPH = Not sampled due to presense of Separate Phase Hydrocarbons
Q = Quarter
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the selected screening levels.
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
J = Estimated concentration
J- = Estimated concentration, possibly biased low
J+ = Estimated concentration, possibly biased high
JB = Estimated concentration due to blank contamination
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-4. METALS (TOTAL) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Magnesium, Total (µg/L)	Manganese, Total (µg/L)	Mercury, Total (µg/L)	Molybdenum, Total (µg/L)	Nickel, Total (µg/L)	Potassium, Total (µg/L)	Selenium, Total (µg/L)	Silver, Total (µg/L)	Sodium, Total (µg/L)	Thallium, Total (µg/L)	Uranium, Total (µg/L)	Vanadium, Total (µg/L)	Zinc, Total (µg/L)
Deep	OW-11	09/20/20	--	95	ND(0.2)	ND(8)	ND(10)	--	11	8.4 JB	--	ND(0.25)	**48**	--	ND(10)
		12/11/20	7670	21.3	ND(0.2)	*ND(100)*	ND(6)	1040	9.91	ND(5)	406000	ND(1)	**45.1**	--	ND(20)
		09/18/17	--	19	ND(0.2)	--	--	--	5	ND(5)	--	--	**210**	--	ND(10)
		09/18/18	--	18	0.047	--	--	--	2.4	ND(5)	--	--	**180**	--	ND(10)
		08/20/19	--	18	ND(0.2)	**180**	ND(10)	--	4.4	ND(5)	--	ND(0.5)	**190**	--	ND(10)
		09/20/20	--	17	ND(0.2)	**210**	ND(10)	--	ND(1)	ND(5)	--	ND(0.25)	**200**	--	ND(10) UJ
	OW-12	09/19/17	--	5.8	ND(0.2)	--	--	--	0.89	ND(5)	--	--	--	--	17
		09/19/18	--	18	0.054	--	--	--	ND(1)	ND(5)	--	--	11	--	6.4
		3Q2020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	OW-13	09/17/20	--	9.5 J	0.15 J+	ND(40)	ND(50)	--	ND(1)	ND(25)	--	ND(0.25)	14	--	ND(50)
		10/14/19	--	20	ND(0.2)	ND(8)	ND(10)	--	ND(1)	ND(5)	--	ND(0.5)	--	--	ND(10)
		03/02/20	--	19	ND(0.2)	9	ND(10)	--	ND(1)	ND(5)	--	ND(0.5)	15	--	ND(10)
		09/17/20	--	23	0.13 J+	ND(40)	ND(50)	--	ND(1)	ND(25)	--	ND(0.25)	17	--	ND(50)
		12/09/20	--	26.9	ND(0.2)	*ND(100)*	ND(6)	--	ND(5)	ND(5)	--	ND(1)	16	--	ND(20)
	PW-2	09/10/14	--	ND(2)	ND(0.2)	--	--	--	1.4	ND(5)	--	--	2.4	--	12
		09/18/17	--	3.3	ND(0.2)	--	--	--	1.1	ND(5)	--	--	2.3	--	7.1
		09/21/20	--	2	ND(0.2)	ND(8)	ND(10)	--	0.99 J	1.9 J	--	ND(0.25)	1.4	--	28 J
		12/28/20	--	10.9	ND(0.2)	*ND(100)*	ND(6)	--	ND(5)	ND(5)	--	ND(1)	ND(5)	--	106
	PW-3	08/28/19	--	1	0.11	ND (8)	ND (10)	--	1.1	1.3	--	**15**	ND (0.5)	--	130
		09/21/20	--	4.8	ND(0.2)	ND(8)	4 J+	--	0.94 J	3.4 J	--	ND(0.25)	1.2	--	20
		12/28/20	--	19.3	ND(0.2)	*ND(100)*	ND(6)	--	ND(5)	ND(5)	--	ND(1)	ND(5)	--	46.4
	PW-4	08/27/19	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/21/20	--	1.2 J	ND(0.2)	ND(8)	ND(10)	--	1.1	2.7 J	--	ND(0.25)	1.3	--	ND(10)
		12/28/20	--	ND(10)	ND(0.2)	*ND(100)*	ND(6)	--	ND(5)	ND(5)	--	ND(1)	ND(5)	--	ND(20)
Selected Screening Level			NA	2,017	2	98.7	372	NA	50	50	NA	2	30	63.1	5,960

Notes:
-- = Not Measured
NA = Not Applicable
ND(x) = Not detected, where x = the reporting limit
NS = Not sampled
NS - Dry = Not sampled due to dry well
NS - H2S = Not sampled due to presense of Hydrogen Sulfide
NS - RW = Not sampled due to recovery well in place
NS - SPH = Not sampled due to presense of Separate Phase Hydrocarbons
Q = Quarter
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the selected screening levels.
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
J = Estimated concentration
J- = Estimated concentration, possibly biased low
J+ = Estimated concentration, possibly biased high
JB = Estimated concentration due to blank contamination
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Aluminum, Dissolved (µg/L)	Antimony, Dissolved (µg/L)	Arsenic, Dissolved (µg/L)	Barium, Dissolved (µg/L)	Beryllium, Dissolved (µg/L)	Boron, Dissolved (µg/L)	Cadmium, Dissolved (µg/L)	Calcium, Dissolved (µg/L)	Chromium, Dissolved (µg/L)
Eastern Boundary	OW-14	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-29	10/14/19	ND(20)	0.77	0.62	74	ND(2)	540	ND(2)	61000	ND(6)
		02/24/20	ND(20)	ND(1)	0.88 J	73	ND(2)	520	ND(2)	--	ND(6)
		09/17/20	8.8 J-	ND(1)	0.59 J	73	ND(2)	510	ND(2)	--	ND(6)
		12/09/20	ND(200)	ND(2)	ND(1)	ND(200)	ND(0.004)	584	ND(5)	--	ND(5)
	OW-30	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-50	10/15/19	5.7	ND(1)	1.9	52	0.36	360	ND(2)	29000	ND(6)
		03/02/20	ND(20)	ND(1) UJ	1.9	46	ND(2)	300	ND(2)	26000	ND(6)
		09/17/20	ND(20) UJ	ND(1)	1.9	49	ND(2)	350	ND(2)	27000	ND(6)
		12/09/20	ND(200)	ND(2)	1.8	ND(200)	ND(0.004)	392	ND(5)	--	ND(5)
	OW-52	10/15/19	4.6	ND(1)	0.69	29	0.29	370	ND(2)	4900	ND(6)
		03/02/20	ND(20)	ND(1) UJ	0.53 J	27	ND(2)	310	ND(2)	4500	ND(6)
		09/17/20	570 J-	ND(1)	0.59 J	35	ND(2)	320	ND(2)	5000	ND(6)
		12/09/20	ND(200)	ND(2)	ND(1)	ND(200)	ND(0.004)	362	ND(5)	--	ND(5)
	OW-53	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-54	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-55	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-56	10/15/19	ND(20)	ND(1)	2.3	320	0.58	610	ND(2)	88000	ND(6)
		03/02/20	ND(20)	ND(1) UJ	2.3	300	ND(2)	490	*ND(10)*	82000	ND(30)
		09/21/20	ND(20)	ND(1)	4.1	530	ND(2)	600	ND(2)	--	ND(6)
		12/23/20	ND(200)	ND(2)	2.52	476	ND(3)	666	ND(5)	--	ND(10)
Tank Farm	OW-57	11/05/19	ND(20)	ND(1)	2.9	**4000**	ND(2)	290	ND(2)	120000	ND(6)
		03/05/20	ND(20)	ND(1)	3.3	**4000**	ND(2)	210	ND(2)	120000	ND(6)
		09/18/20	ND(20)	ND(1)	3.1	**3800**	ND(2)	260	ND(2) UJ	--	ND(6)
		12/23/20	ND(200)	ND(2)	2.79	**3690**	ND(3)	302	ND(5)	--	ND(10)
	OW-58	11/18/19	ND(20)	ND(1)	2.6	**4500**	ND(2)	360	ND(2)	130000	ND(6)
		09/17/20	ND(20)	ND(1)	2.6	**4400**	ND(2)	320	ND(2) UJ	--	ND(6)
		12/22/20	ND(200)	ND(2)	3.13	**4560**	ND(3)	351	ND(5)	--	ND(10)
	OW-58A	03/06/20	ND(20)	ND(1)	3.3	620	ND(2)	460	ND(2)	73000	ND(6)
		09/18/20	ND(20)	ND(1)	5.3	730	ND(2)	430	ND(2) UJ	--	ND(6)
		12/23/20	ND(200)	ND(2)	4.13	740	ND(3)	504	ND(5)	--	ND(10)
	OW-61	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-62	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-63	11/18/19	ND(20)	ND(1)	9.7	**4500**	ND(2)	350	ND(2)	84000	ND(6)
		03/04/20	ND(20)	ND(1)	8.9	**4400**	ND(2)	250	ND(2)	86000	ND(6)
		09/16/20	ND(100) UJ	ND(1)	4.6	**3700**	*ND(10)*	310	*ND(10)*	83000	ND(30)
		12/11/20	ND(200)	ND(2)	8.3	**4160**	ND(3)	327	ND(5)	--	ND(10)
	OW-64	11/18/19	130	ND(1)	3.3	280	ND(2)	2400	ND(2)	12000	ND(6)
		03/04/20	160	ND(1)	3.7	320	ND(2)	1500	ND(2)	13000	ND(6)
		09/22/20	19 J	ND(1) UJ	3.6	340	ND(2)	2300	ND(2)	16000	ND(6)
		12/11/20	537	ND(2)	2.47	324	ND(3)	1790	ND(5)	--	ND(10)
	OW-65	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-1	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-2	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-5	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-6	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-02	11/19/19	--	--	--	--	--	--	--	--	--
		02/25/20	ND(20)	ND(1)	1.1	83	0.32 J	510	ND(2)	300000	ND(6)
		09/21/20	ND(20)	ND(1)	1.4	280	ND(2)	840	ND(2)	210000	ND(6)
		12/18/20	ND(200) UJ	*ND(20)*	ND(10)	765	ND(3)	855	ND(5)	--	ND(10)
	MKTF-03	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-04	10/30/19	ND(20)	ND(1)	9.8	**3400**	ND(2)	580	ND(2)	130000	ND(6)
		03/03/20	ND(20)	ND(1) UJ	5	**2300**	ND(2)	410	ND(2)	120000	ND(6)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-05	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-06	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-07	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-08	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-09	11/18/19	34	ND(1)	2.9	670	ND(2)	400	ND(2)	160000	ND(6)
		03/03/20	ND(20)	ND(1) UJ	1.6	520	ND(2)	270	ND(2)	150000	ND(6)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-10	10/30/19	ND(20)	ND(1)	9.2	**10000**	0.47	500	ND(2)	320000	ND(6)
		03/03/20	ND(20)	ND(1) UJ	5.6	**9500**	ND(2)	270	ND(2)	280000	ND(6)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	ND(200) UJ	ND(2)	9.73	**9090**	ND(3)	443	ND(5)	--	ND(10)
	MKTF-11	10/30/19	ND(20)	ND(1)	**20**	**2200**	0.37	660	ND(2)	130000	ND(6)
		03/03/20	ND(20)	ND(1) UJ	8.6	**2900**	ND(2)	500	ND(2)	220000	ND(6)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-12	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	Selected Screening Level		19,914	6	10	2000	4	3,949	5	NA	100

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Cobalt, Dissolved (µg/L)	Copper, Dissolved (µg/L)	Iron, Dissolved (µg/L)	Lead, Dissolved (µg/L)	Magnesium, Dissolved (µg/L)	Manganese, Dissolved (µg/L)	Mercury, Dissolved (µg/L)	Molybdenum, Dissolved (µg/L)	Nickel, Dissolved (µg/L)
Eastern Boundary	OW-14	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-29	10/14/19	*ND(6)*	2.6	200	ND(0.5)	13000	330	--	ND(8)	22
		02/24/20	*ND(6)*	ND(6)	250	ND(0.5)	--	330	--	ND(8)	23
		09/17/20	*ND(6)*	ND(6)	210	0.36 J	--	310	--	ND(8)	22
		12/09/20	*ND(50)*	ND(25)	259	ND(1)	--	342	ND(0.2)	ND(40)	ND(40)
	OW-30	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-50	10/15/19	*ND(6)*	1.3	ND(20)	ND(0.5)	4600	120	--	ND(8)	ND(10)
		03/02/20	*ND(6)*	ND(6)	ND(20)	ND(0.5)	4600	110	--	ND(8)	ND(10)
		09/17/20	*ND(6)*	ND(6)	14J	ND(0.5)	4600	110	--	6.2 J	ND(10)
		12/09/20	*ND(50)*	ND(25)	ND(100)	ND(1)	--	120	ND(0.2)	ND(40)	ND(40)
	OW-52	10/15/19	*ND(6)*	2	44	ND(0.5)	620	24	--	6.9	ND(10)
		03/02/20	*ND(6)*	ND(6)	58	ND(0.5)	610 J	23	--	ND(8)	ND(10)
		09/17/20	*ND(6)*	ND(6)	170	ND(0.18) J	630 J	45	--	ND(8)	ND(10)
		12/09/20	*ND(50)*	ND(25)	ND(100)	ND(1)	--	29.9	ND(0.2)	ND(40)	ND(40)
	OW-53	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-54	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-55	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-56	10/15/19	*ND(6)*	8.6	16	0.098	15000	81	--	ND(8)	84
		03/02/20	*ND(30)*	ND(6)	21	0.91 J	16000	70	--	ND(40)	81
		09/21/20	5.7 J-	ND(6)	390	0.83 J	--	**2700**	--	ND(8)	81
		12/23/20	*ND(10)*	ND(20)	272	ND(1)	--	431	ND(0.2)	*ND(100)*	86.1
Tank Farm	OW-57	11/05/19	*ND(6)*	ND(6)	3300	ND(0.5)	18000	**2200**	--	ND(8)	79
		03/05/20	*ND(6)*	ND(6)	3000	ND(0.5)	17000	**2200**	--	ND(8)	56
		09/18/20	*ND(6) UJ*	ND(6)	2900	0.43 J	--	2000	--	ND(8)	73
		12/23/20	*ND(10)*	ND(20)	2770	ND(1)	--	**2080**	ND(0.2)	*ND(100)*	80.6
	OW-58	11/18/19	*ND(6)*	ND(6)	8700	ND(0.5)	37000	2000	--	ND(8)	21
		09/17/20	*ND(6) UJ*	ND(6)	8300	ND(0.5)	--	1800	--	ND(8)	24 J
		12/22/20	*ND(10)*	ND(20)	7080	ND(1)	--	2000	ND(0.2)	*ND(100)*	36.1 J
	OW-58A	03/06/20	*ND(6)*	ND(6)	3400	1.9	24000	1300	--	ND(8)	34
		09/18/20	*ND(6) UJ*	ND(6)	4700	0.81	--	1400	--	ND(8)	30 J
		12/23/20	*ND(10)*	ND(20)	4540	1.24	--	1370	ND(0.2)	*ND(100)*	37.8
	OW-61	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-62	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-63	11/18/19	*ND(6)*	ND(6)	5700	ND(0.5)	16000	1100	--	ND(8)	25
		03/04/20	*ND(6)*	ND(6)	6500	ND(0.5)	17000	880	--	ND(8)	20
		09/16/20	*ND(30)*	ND(30)	210	ND(0.5)	15000	990	--	ND(40)	ND(50)
		12/11/20	*ND(10)*	ND(20)	6060	ND(1)	--	985	ND(0.2)	*ND(100)*	20.3
	OW-64	11/18/19	*ND(6)*	ND(6)	67	0.092	3300	350	--	42	ND(10)
		03/04/20	*ND(6)*	ND(6)	75	0.92 J	3700	360	--	18	8.6 J
		09/22/20	*ND(6) UJ*	ND(6)	23	0.38 J	4200	400	--	22	ND(10)
		12/11/20	*ND(10)*	ND(20)	234	ND(1)	--	328	ND(0.2)	*ND(100)*	ND(6)
	OW-65	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-1	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-2	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-5	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-6	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-02	11/19/19	--	--	--	--	--	--	--	--	--
		02/25/20	*ND(6)*	ND(6)	340	ND(0.5)	48000	**3000**	--	ND(8)	4.9 J
		09/21/20	*ND(6) UJ*	ND(6)	220	ND(0.17) J	36000	1900	--	ND(8)	20
		12/18/20	*ND(10)*	ND(20)	1030	ND(10)	--	**6460**	ND(0.2)	*ND(100)*	16.3
	MKTF-03	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-04	10/30/19	*ND(6)*	1.6	5400	0.072	30000	1500	--	ND(8)	7
		03/03/20	*ND(6)*	ND(6)	1400	ND(0.5)	28000	1800	--	ND(8)	5 J
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-05	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-06	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-07	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-08	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-09	11/18/19	*ND(6)*	ND(6)	2400	0.064	30000	**4200**	--	6.8	10
		03/03/20	*ND(6)*	ND(6)	1400	0.67 J	32000	**3900**	--	ND(8)	9.9 J
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-10	10/30/19	*ND(6)*	ND(6)	**14000**	ND(0.5)	76000	**6200**	--	ND(8)	13
		03/03/20	*ND(6)*	ND(6)	7200	ND(0.5)	67000	**5400**	--	ND(8)	11
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	*ND(10)*	ND(20)	7250	ND(1)	--	**4810**	ND(0.2)	*ND(100)*	14.9
	MKTF-11	10/30/19	*ND(6)*	ND(6)	3600	0.067	37000	**2800**	--	14	34
		03/03/20	*ND(6)*	ND(6)	5200	ND(2.5)	60000	**4800**	--	ND(8)	28
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-12	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	Selected Screening Level		5.98	790	13,822	NA	NA	2,017	NA	98.7	372

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Potassium, Dissolved (µg/L)	Selenium, Dissolved (µg/L)	Silver, Dissolved (µg/L)	Sodium, Dissolved (µg/L)	Thallium, Dissolved (µg/L)	Uranium, Dissolved (µg/L)	Vanadium, Dissolved (µg/L)	Zinc, Dissolved (µg/L)
Eastern Boundary	OW-14	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-29	10/14/19	440	ND(1)	1.8	390000	ND(0.5)	--	--	78
		02/24/20	--	ND(1)	ND(5)	--	ND(0.5)	48	--	16
		09/17/20	--	ND(1)	ND(5)	--	ND(0.5)	46	--	15
		12/09/20	--	ND(5)	ND(5)	--	ND(1)	47.8	--	43.2 J
	OW-30	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-50	10/15/19	480	ND(1)	ND(5)	250000	ND(0.5)	--	--	23
		03/02/20	460 J	ND(1)	ND(5) UJ	270000 J-	ND(0.5)	12	--	12
		09/17/20	520 J	ND(1)	ND(5)	230000	ND(0.5)	--	--	16
		12/09/20	--	ND(5)	ND(5)	--	ND(1)	12.1	--	ND(20)
	OW-52	10/15/19	1200	ND(1)	ND(5)	230000	ND(0.5)	--	--	12
		03/02/20	1200	ND(1)	ND(5) UJ	250000 J-	ND(0.5)	11	--	15
		09/17/20	1200	ND(1)	ND(5)	220000 J-	ND(0.5)	8.9	--	12
		12/09/20	--	ND(5)	ND(5)	--	ND(1)	10.6	--	ND(20)
	OW-53	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-54	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-55	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-56	10/15/19	1200	0.34	2.6	470000	ND(0.5)	--	--	22
		03/02/20	920 J	0.27 J	ND(25) UJ	480000 J-	ND(0.5)	16	--	12 J
		09/21/20	--	ND(1)	1.8 J	--	ND(0.5)	15	--	8.2 J
		12/23/20	--	ND(5)	ND(5)	--	ND(1)	14.2	--	ND(20)
Tank Farm	OW-57	11/05/19	580	ND(1)	2.4	280000	ND(0.5)	0.19	--	22
		03/05/20	510 J	0.45 J	1.2 J	290000	ND(0.5)	0.31 J	--	8.2 J
		09/18/20	--	ND(1)	ND(25)	--	ND(0.5)	0.3 J	--	19
		12/23/20	--	ND(5)	ND(5)	--	ND(1)	ND(5)	--	35.1
	OW-58	11/18/19	400	0.31	1.6	240000	ND(0.5)	0.14	--	29
		09/17/20	--	ND(1)	ND(25)	--	ND(0.5)	0.16 J	--	24 J
		12/22/20	--	ND(5)	ND(5)	--	ND(1)	ND(5)	--	ND(20)
	OW-58A	03/06/20	400 J	0.37 J	1.2 J	470000	ND(0.5)	0.59	--	8.8 J
		09/18/20	--	ND(1)	ND(25)	--	ND(0.5)	0.48 J	--	12
		12/23/20	--	ND(5)	ND(5)	--	ND(1)	ND(5)	--	24.7
	OW-61	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-62	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-63	11/18/19	630	ND(1)	ND(5)	290000	ND(0.5)	0.25	--	23
		03/04/20	570 J	ND(1)	ND(5)	310000	ND(0.5)	0.14 J	--	9.1 J
		09/16/20	ND(500)	ND(1)	ND(25)	260000	ND(0.5)	--	--	ND(50)
		12/11/20	--	ND(5)	ND(5)	--	ND(1)	ND(5)	--	ND(20)
	OW-64	11/18/19	1300	0.3	ND(5)	480000	ND(0.5)	18	--	24
		03/04/20	910 J	0.38 J	ND(5)	480000	ND(0.5)	7.6	--	4.3 J
		09/22/20	1100	ND(1)	ND(5)	530000	ND(0.5)	14	--	33 J
		12/11/20	--	ND(5)	ND(5)	--	ND(1)	13.1	--	ND(20)
	OW-65	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-1	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-2	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-5	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-6	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-02	11/19/19	--	--	--	--	--	--	--	--
		02/25/20	1500	0.46 J	5.7	790000	ND(0.5)	5.9	--	11
		09/21/20	2100	ND(1)	3.5 J	820000	ND(0.5)	10	--	ND(10)
		12/18/20	--	ND(50)	ND(5)	--	*ND(10)*	ND(50)	--	ND(20)
	MKTF-03	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-04	10/30/19	450	0.35	2.5	350000	ND(0.5)	--	--	47
		03/03/20	650 J	0.27 J	1.6 J-	370000 J-	ND(0.5)	5.6	--	14
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-05	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-06	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-07	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-08	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-09	11/18/19	500	0.28	2.6	250000	ND(0.5)	6.3	--	20
		03/03/20	480 J	ND(1)	2.1 J-	260000 J-	ND(0.5)	8.5	--	6.7 J
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-10	10/30/19	780	0.44	5	430000	ND(0.5)	--	--	18
		03/03/20	620 J	0.18 J	3.8 J-	400000 J-	ND(0.5)	0.59	--	6.1 J
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	--	ND(5)	ND(5)	--	ND(1)	ND(5)	--	ND(20)
	MKTF-11	10/30/19	900	0.23	2.9	730000	ND(0.5)	--	--	18
		03/03/20	1200	ND(5)	3.3 J-	890000 J-	*ND(2.5)*	9.2	--	6 J
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-12	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	Selected Screening Level		NA	50	81.2	NA	2	NA	63.1	5960

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Aluminum, Dissolved (µg/L)	Antimony, Dissolved (µg/L)	Arsenic, Dissolved (µg/L)	Barium, Dissolved (µg/L)	Beryllium, Dissolved (µg/L)	Boron, Dissolved (µg/L)	Cadmium, Dissolved (µg/L)	Calcium, Dissolved (µg/L)	Chromium, Dissolved (µg/L)
Marketing Tank Farm Area	MKTF-13	10/29/19	ND(20)	ND(1)	3.4	**6000**	ND(2)	210	ND(2)	240000	ND(6)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-14	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-15	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-16	10/30/19	27	ND(1)	**12**	**4300**	0.49	750	ND(2)	210000	ND(6)
		1Q2020 - 3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/23/20	--	--	--	--	--	--	--	--	--
		12/28/20	--	--	--	--	--	--	--	--	--
	MKTF-17	10/29/19	ND(20)	0.7	4.4	1600	ND(2)	420	ND(2)	150000	ND(6)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-18	10/29/19	ND(20)	ND(1)	1.2	**2000**	ND(2)	390	ND(2)	86000	ND(6)
		02/06/20	30	ND(1)	ND(1)	1600	ND(2)	230	ND(2)	150000	ND(6)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	ND(200)	ND(2)	1.72	**2180**	ND(3)	404	ND(5)	--	ND(10)
	MKTF-19	10/29/19	9.3	1.1	**13**	1900	ND(2)	330	ND(2)	150000	ND(6)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-20	11/05/19	35	0.41	**10**	**2100**	ND(2)	120	ND(2)	110000	ND(6)
		02/05/20	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-21	11/05/19	24	0.52	**19**	**14000**	ND(2)	840	ND(2)	470000	ND(6)
		02/05/20	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-22	10/24/19	23	ND(1)	1.7	1400	0.43	410	ND(2)	150000	ND(6)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-23	10/29/19	ND(20)	0.91	8.4	1700	ND(2)	490	ND(2)	84000	ND(6)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-24	10/23/19	ND(20)	ND(5)	3.1	380	0.96	640	ND(2)	140000	ND(6)
		02/25/20	ND(20)	ND(0.83) J	1.3	270	0.32 J	560	ND(2)	160000	ND(6)
		09/19/20	ND(20)	ND(5)	1.5 J	420	ND(2)	620	ND(2) UJ	170000	ND(6)
		12/18/20	ND(200) UJ	ND(2)	2.14	457	ND(3)	686	ND(5)	--	ND(10)
	MKTF-25	10/23/19	ND(20)	ND(5)	3.7	530	0.36	770	ND(2)	260000	ND(6)
		02/27/20	ND(20)	ND(1) UJ	1.5	220	ND(2)	410	ND(2)	200000	ND(6)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	ND(200) UJ	ND(2)	1.46	293	ND(3)	726	ND(5)	--	ND(10)
	MKTF-26	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-27	10/23/19	ND(20)	ND(5)	1.1	41	1.1	590	ND(2)	240000	ND(6)
		02/25/20	ND(20)	ND(5)	1.7 J	67	0.55 J	220	ND(2)	820000	ND(6)
		09/20/20	ND(20)	ND(5)	ND(5)	48	ND(2)	570	ND(2)	270000	ND(6)
		12/18/20	296 J	*ND(20)*	ND(10)	44.8	ND(3)	540	ND(5)	--	ND(10)
	MKTF-28	10/22/19	19	ND(5)	1.3	51	0.54	1800	ND(2)	44000	ND(6)
		02/25/20	ND(20)	ND(0.46) J	1	51	ND(2)	1400	ND(2)	54000	ND(6)
		09/20/20	20 J+	ND(1)	0.97 J	74	ND(2)	1900	ND(2)	58000	ND(6)
		12/18/20	ND(200) UJ	ND(2)	ND(1)	72.9	ND(3)	1700	ND(5)	--	ND(10)
	MKTF-29	10/22/19	ND(20)	3.2	1.1	62	0.73	700	ND(2)	190000	ND(6)
		02/25/20	ND(20)	ND(1)	0.91 J	56	0.5 J	470	ND(2)	280000	ND(6)
		09/20/20	ND(20)	ND(0.72) J	ND(5)	130	ND(2)	720	ND(2)	380000	ND(6)
		12/15/20	ND(200) UJ	ND(2)	ND(1)	160	ND(3)	694	ND(5)	--	ND(10)
	MKTF-30	10/23/19	6.1	ND(5)	0.79	32	0.82	660	ND(2)	70000	ND(6)
		02/27/20	55	ND(1)	0.54 J	26	0.33 J	540	ND(2)	73000	ND(6)
		09/20/20	ND(20)	ND(5)	ND(5)	33	ND(2)	650	ND(2)	80000	ND(6)
		12/15/20	12200 J	ND(2)	ND(1)	123 J	ND(3)	760	ND(5)	--	ND(10)
	MKTF-31	10/22/19	ND(20)	ND(1)	0.66	130	1.1	710	ND(2)	140000	ND(6)
		02/25/20	ND(20)	ND(1)	0.44 J	90	0.35 J	390	ND(2)	130000	ND(6)
		09/19/20	95	ND(1)	0.7 J	120	ND(2)	720	ND(2) UJ	100000	ND(6)
		12/18/20	205 J	ND(2)	ND(1)	127	ND(3)	613	ND(5)	--	ND(10)
	MKTF-32	10/23/19	120	ND(1)	3	52	ND(2)	1200	ND(2)	27000	ND(6)
		02/27/20	ND(20)	ND(1)	2.3	38	0.33 J	1000	ND(2)	26000	ND(6)
		09/21/20	ND(20)	ND(1)	2.2	50	ND(2)	1100	ND(2)	23000	ND(6)
		12/15/20	ND(200) UJ	ND(2)	2.33	50.9	ND(3)	1190	ND(5)	--	ND(10)
	MKTF-33	10/24/19	7.6	ND(1)	0.62	76	0.44	510	ND(2)	84000	ND(6)
		02/28/20	ND(20)	ND(1)	0.54 J	82	ND(2)	480	ND(2)	76000	ND(6)
		9/14/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-34	10/29/19	4.5	ND(1)	0.53	120	ND(2)	510	ND(2)	110000	ND(6)
		02/05/20	ND(20)	ND(1)	0.39 J	160	ND(2)	260	ND(2)	180000	ND(6)
		02/28/20	ND(20)	ND(1)	0.47 J	180	ND(2)	190	ND(2)	210000	ND(6)
		09/16/20	1400 J-	*ND(10)*	ND(10)	180	ND(2)	460	ND(2)	100000	ND(6)
	MKTF-35	10/29/19	28	ND(1)	0.43	480	ND(2)	340	ND(2)	150000	ND(6)
		02/06/20	48 J	ND(1)	0.73 J	**2100**	ND(2)	380 J	ND(2)	88000 J	ND(6)
		09/16/20	180 J-	*ND(10)*	ND(10)	**2600**	ND(2)	340	ND(2)	180000	ND(6)
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-36	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/18/20	42 J+	ND(1)	**16**	**7700**	ND(2)	350	ND(2) UJ	140000	ND(6)
		09/18/20	ND(10) UJ	**1700**	ND(1)	18	**7500**	ND(2)	**370**	ND(2)	--
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Selected Screening Level			19,914	6	10	2000	4	3,949	5	NA	100

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Cobalt, Dissolved (µg/L)	Copper, Dissolved (µg/L)	Iron, Dissolved (µg/L)	Lead, Dissolved (µg/L)	Magnesium, Dissolved (µg/L)	Manganese, Dissolved (µg/L)	Mercury, Dissolved (µg/L)	Molybdenum, Dissolved (µg/L)	Nickel, Dissolved (µg/L)
Marketing Tank Farm Area	MKTF-13	10/29/19	*ND(6)*	ND(6)	**15000**	0.18	46000	**4600**	--	ND(8)	ND(10)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-14	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-15	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-16	10/30/19	*ND(6)*	ND(6)	**15000**	0.15	57000	**5500**	--	ND(8)	47
		1Q2020 - 3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/23/20	--	--	--	--	--	--	--	--	--
		12/28/20	--	--	--	--	--	--	--	--	--
	MKTF-17	10/29/19	*ND(6)*	ND(6)	450	ND(0.5)	32000	**3500**	--	ND(8)	ND(10)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-18	10/29/19	*ND(6)*	ND(6)	650	ND(0.5)	24000	**2100**	--	ND(8)	5.8
		02/06/20	*ND(6)*	ND(6)	2700 J	ND(0.1) J	42000	**2900**	--	ND(8)	ND(10)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	*ND(10)*	ND(20)	239	ND(1)	--	**2200**	ND(0.2) UJ	*ND(100)*	ND(6)
	MKTF-19	10/29/19	*ND(6)*	ND(6)	10000	1.7	30000	**2400**	--	ND(8)	4.5
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-20	11/05/19	*ND(6)*	5.8	2200	0.26	17000	**2100**	--	ND(8)	5.1
		02/05/20	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-21	11/05/19	*ND(6)*	6.1	8300	1.1	140000	**6200**	--	7.1	59
		02/05/20	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-22	10/24/19	*ND(6)*	3.4	6800	ND(0.5)	29000	**2900**	--	ND(8)	6.6
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-23	10/29/19	*ND(6)*	ND(6)	160	0.72	17000	2000	--	12	22
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-24	10/23/19	4.6	ND(6)	590	0.98	24000	**2400**	--	ND(8)	34
		02/25/20	4.4 J	3.7 J	80	1.5	27000	1900	--	ND(8)	25
		09/19/20	**6.7**	ND(6)	260	ND(1.5) J	31000	1900	--	ND(8)	32
		12/18/20	*ND(10)*	ND(20)	248	ND(1)	--	**2390**	ND(0.2)	*ND(100)*	37.6
	MKTF-25	10/23/19	*ND(6)*	3.4	280	ND(2.5)	45000	**5400**	--	ND(8)	25
		02/27/20	*ND(6)*	1.8 J	130	ND(0.17) J	36000	**3200**	--	ND(8)	19
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	*ND(10)*	ND(20)	ND(200)	ND(1)	--	**2980**	ND(0.2)	*ND(100)*	24.5
	MKTF-26	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-27	10/23/19	*ND(6)*	6.8	17	ND(2.5)	41000	48	--	ND(8)	30
		02/25/20	*ND(6)*	8.5	29	ND(2.5)	140000	65	--	ND(8)	20
		09/20/20	*ND(6) UJ*	5.4 J / ND(6) U*	15 J	ND(2.5)	48000	230	--	ND(8)	39 J
		12/18/20	*ND(10)*	ND(20)	ND(200)	ND(10)	--	254	ND(0.2)	*ND(100)*	33.5
	MKTF-28	10/22/19	*ND(6)*	ND(6)	23	ND(2.5)	8900	37	--	ND(8)	ND(10)
		02/25/20	*ND(6)*	1.3 J	ND(20)	ND(0.5)	11000	0.42 J	--	ND(8)	ND(10)
		09/20/20	*ND(6) UJ*	ND(6)	12 J	ND(0.5)	12000	15	--	ND(8)	3.9 J
		12/18/20	*ND(10)*	ND(20)	ND(200)	ND(1)	--	ND(10)	ND(0.2)	*ND(100)*	ND(6)
	MKTF-29	10/22/19	*ND(6)*	ND(6)	ND(20)	ND(2.5)	27000	2000	--	ND(8)	12
		02/25/20	*ND(6)*	ND(6)	ND(20)	ND(0.5)	38000	**2500**	--	ND(8)	8.2 J
		09/20/20	*ND(6) UJ*	ND(6)	12 J	ND(2.5)	56000	**4200**	--	ND(8)	ND(50)
		12/15/20	*ND(10)*	ND(20)	ND(200)	ND(1)	--	**5140 J**	ND(0.2)	*ND(100)*	21.3
	MKTF-30	10/23/19	*ND(6)*	ND(6)	13	ND(0.5)	13000	1.3	--	ND(8)	16
		02/27/20	*ND(6)*	4.1 J	ND(20)	ND(0.5)	13000	ND(1.1) J	--	ND(8)	13
		09/20/20	*ND(6) UJ*	ND(6)	ND(20)	ND(2.5)	15000	ND(1.6) J	--	ND(8)	19 J
		12/15/20	*ND(10)*	ND(20)	5620 J	ND(2.48) J	--	302 J	ND(0.2)	*ND(100)*	22.1 J
	MKTF-31	10/22/19	*ND(6)*	ND(6)	ND(20)	ND(0.5)	28000	15	--	ND(8)	4.4
		02/25/20	*ND(6)*	ND(6)	ND(20)	0.74 J	26000	16	--	ND(8)	ND(10)
		09/19/20	*ND(6)*	ND(6)	50	0.9 J	22000	61	--	ND(8)	ND(10)
		12/18/20	*ND(10)*	ND(20)	ND(200) UJ	ND(1)	--	36.5	ND(0.2)	*ND(100)*	ND(6)
	MKTF-32	10/23/19	*ND(6)*	4.3	59	0.15	5100	43	--	ND(8)	ND(10)
		02/27/20	*ND(6)*	ND(6)	ND(20)	0.85 J	4900	74	--	ND(8)	ND(10)
		09/21/20	*ND(6) UJ*	ND(6)	ND(20)	ND(0.1) J	4700	160 J	--	ND(8)	ND(10)
		12/15/20	*ND(10)*	ND(20)	ND(200)	ND(1)	--	ND(3.78) J	ND(0.2)	*ND(100)*	ND(6)
	MKTF-33	10/24/19	*ND(6)*	4.1	52	ND(0.5)	17000	380	--	ND(8)	5.4
		02/28/20	*ND(6)*	ND(6)	32	ND(0.11) J	17000	310	--	ND(8)	ND(10)
		9/14/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-34	10/29/19	*ND(6)*	ND(6)	ND(20)	ND(0.5)	26000	0.44	--	ND(8)	ND(10)
		02/05/20	*ND(6)*	2 J / ND(6) U*	ND(20) UJ	ND(0.5)	40000	ND(1) J	--	ND(8)	ND(10)
		02/28/20	*ND(6)*	ND(6)	ND(20)	ND(0.5)	47000	ND(0.38) J	--	ND(8)	ND(10)
		09/16/20	*ND(6)*	ND(6)	1900	ND(2.5) J	22000	78	--	ND(8)	ND(10)
	MKTF-35	10/29/19	*ND(6)*	ND(6)	3400	0.14	45000	**2900**	--	ND(8)	5.6
		02/06/20	*ND(6)*	4 J / ND(6) U*	65 J	ND(0.5)	23000 J	2000 J	--	ND(8)	ND(10)
		09/16/20	*ND(6)*	ND(6)	4200	ND(0.59) J	48000	**3100**	--	ND(8)	ND(10)
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-36	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/18/20	*ND(6) UJ*	ND(6)	11000	1.6	37000	1600	--	ND(8)	ND(50)
		09/18/20	*ND(6)*	ND(6)	ND(6)	12000	4.9	--	1800	ND(0.2)	ND(8)
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Selected Screening Level			5.98	790	13,822	NA	NA	2,017	NA	98.7	372

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Potassium, Dissolved (µg/L)	Selenium, Dissolved (µg/L)	Silver, Dissolved (µg/L)	Sodium, Dissolved (µg/L)	Thallium, Dissolved (µg/L)	Uranium, Dissolved (µg/L)	Vanadium, Dissolved (µg/L)	Zinc, Dissolved (µg/L)
	MKTF-13	10/29/19	260	--	3.4	190000	ND(0.5)	--	--	24
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-14	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-15	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-16	10/30/19	1900	0.87	3.3	1100000	ND(0.5)	--	--	26
		1Q2020 - 3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/23/20	--	--	--	--	--	--	--	--
		12/28/20	--	--	--	--	--	--	--	--
	MKTF-17	10/29/19	760	--	2.9	270000	ND(0.5)	--	--	34
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-18	10/29/19	400	--	2.4	280000	ND(0.5)	--	--	19
		02/06/20	440 J	ND(1)	3 J	190000	ND(0.5)	1.2	--	8 J
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	--	ND(5)	ND(5)	--	ND(1)	ND(5)	--	ND(20)
	MKTF-19	10/29/19	840	--	2.1	290000	ND(0.5)	--	--	17
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-20	11/05/19	14000	0.67	2.2	130000	ND(0.5)	0.22	--	83
		02/05/20								
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-21	11/05/19	7300	1.1	9.6	1000000	*ND(2.5)*	3.1	--	63
		02/05/20								
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-22	10/24/19	860	ND(5)	3	280000	ND(0.5)	--	--	21
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-23	10/29/19	930	--	1.2	540000	ND(0.5)	--	--	23
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-24	10/23/19	2100	ND(5)	3	580000	ND(0.5)	--	--	25
		02/25/20	2200	0.44 J	3.2 J	620000	ND(0.5)	20	--	40 J
		09/19/20	2600	ND(5)	2.1 J	610000	*ND(2.5)*	2.7 J	--	9.5 J
		12/18/20	--	ND(5)	ND(5)	--	ND(1)	18.5	--	ND(20)
	MKTF-25	10/23/19	2000	ND(5)	5	810000	*ND(2.5)*	--	--	18
		02/27/20	1500	0.36 J	3 J-	710000 J-	ND(0.5)	37	--	9.4 J
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	--	ND(5)	ND(5)	--	ND(1)	51.3	--	ND(20)
	MKTF-26	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-27	10/23/19	11000	1.9	5.7	1900000	*ND(2.5)*	--	--	34
Marketing Tank Farm Area		02/25/20	13000	6.5	9.6	3300000	*ND(2.5)*	34	--	29 J
		09/20/20	11000	ND(5)	7.3 J	2100000	*ND(2.5)*	37	--	22 JB
		12/18/20	--	ND(50)	ND(5)	--	*ND(10)*	ND(50)	--	ND(20)
	MKTF-28	10/22/19	2000	ND(5)	1.3	590000	*ND(2.5)*	--	--	23
		02/25/20	1700	0.46 J	1.1 J	540000	ND(0.5)	130	--	54 J
		09/20/20	2100	0.83 J	ND(25)	650000	ND(0.5)	150	--	14 / ND(14) U*
		12/18/20	--	ND(5)	ND(5)	--	ND(1)	119	--	ND(20)
	MKTF-29	10/22/19	390	ND(5)	4.4	770000	*ND(2.5)*	--	--	24
		02/25/20	520 J	0.54 J	5.6	830000	ND(0.5)	12	--	13
		09/20/20	350 J	ND(5)	9.3 J	870000	*ND(2.5)*	16	--	290 J
		12/15/20	--	ND(5)	ND(5)	--	ND(1)	18	--	ND(20)
	MKTF-30	10/23/19	430	ND(5)	1.5	750000	ND(0.5)	--	--	15
		02/27/20	320 J	0.33 J	2.1 J	750000	ND(0.5)	29	--	15
		09/20/20	440 J	ND(5)	ND(25)	820000	*ND(2.5)*	36	--	15 / ND(15) U*
		12/15/20	--	ND(5)	ND(5)	--	ND(1)	33.5	--	ND(20)
	MKTF-31	10/22/19	1600	ND(5)	3.3	530000	ND(0.5)	--	--	14
		02/25/20	1000	0.26 J	2.9 J	490000	ND(0.5)	42	--	30
		09/19/20	1300	ND(1)	ND(5)	440000	ND(0.5)	42	--	10 J
		12/18/20	--	ND(5)	ND(5)	--	ND(1)	41.3	--	ND(20)
	MKTF-32	10/23/19	700	ND(5)	ND(5)	590000	ND(0.5)	--	--	7.2
		02/27/20	590 J	0.39 J	ND(5)	550000	ND(0.5)	52	--	23
		09/21/20	420 J	ND(1)	ND(5)	560000	ND(0.5)	54	--	9.6 J / ND(10) U*
		12/15/20	--	ND(5)	ND(5)	--	ND(1)	52.4	--	ND(20)
	MKTF-33	10/24/19	780	0.18	1.9	300000	ND(0.5)	--	--	17
		02/28/20	990 J	0.2 J	1.8 J	300000	ND(0.5)	32	--	12
		9/14/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-34	10/29/19	1300	--	2.4	380000	ND(0.5)	--	--	28
		02/05/20	890 J	1.5	3 J	280000	ND(0.5)	17	--	60
		02/28/20	850 J	0.85 J	4.1 J	290000	ND(0.5)	17	--	18
		09/16/20	1300	ND(10)	1.4 J	380000	*ND(5)*	21	--	31 JB
	MKTF-35	10/29/19	530	--	3.3	200000	ND(0.5)	--	--	18
		02/06/20	590 J	ND(1)	2 J	280000 J	ND(0.5)	0.66 J	--	11
		09/16/20	500 J	ND(10)	2.7 J	200000	*ND(5)*	0.87 J	--	13 JB
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-36	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/18/20	940 J	ND(1)	ND(25)	220000	ND(0.5)	0.34 J	--	210 J
		09/18/20	--	0.76 J	ND(5)	--	ND(0.25)	0.4 J	16 J	--
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Selected Screening Level			NA	50	81.2	NA	2	NA	63.1	5960

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Aluminum, Dissolved (µg/L)	Antimony, Dissolved (µg/L)	Arsenic, Dissolved (µg/L)	Barium, Dissolved (µg/L)	Beryllium, Dissolved (µg/L)	Boron, Dissolved (µg/L)	Cadmium, Dissolved (µg/L)	Calcium, Dissolved (µg/L)	Chromium, Dissolved (µg/L)
Marketing Tank Farm Area	MKTF-37	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/17/20	ND(20)	ND(1)	2.6	1700	ND(2)	510	ND(2) UJ	72000	ND(6)
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-38	4Q2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/05/20	ND(20)	ND(1)	0.46 J	14	ND(2)	360	ND(2)	140000	ND(6)
		09/19/20	440	ND(1)	0.76 J	36	ND(2)	440	ND(2) UJ	230000	ND(6)
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-39	11/05/19	48	ND(5)	1.8	**55000**	ND(2)	550	ND(2)	830000	ND(6)
		02/05/20	24	ND(5)	0.89 J	**43000**	ND(2)	460	ND(2)	740000	ND(6)
		09/19/20	65	ND(5)	1.6 J	**38000**	ND(2)	560	ND(2) UJ	530000	ND(6)
		12/16/20	19000	ND(2)	ND(2)	**36100**	ND(3)	491	ND(5)	--	ND(10)
	MKTF-40	10/22/19	ND(20)	ND(5)	0.73	62	1.3	2200	ND(2)	250000	ND(6)
		02/28/20	ND(20)	ND(5)	0.8 J	34	ND(2)	1700	ND(2)	200000	ND(6)
		09/19/20	ND(20)	ND(5)	ND(5)	67	ND(2)	2100	ND(2) UJ	250000	ND(6)
		12/17/20	522 J	ND(2)	ND(1)	65.4	ND(3)	2080	ND(5)	--	ND(10)
	MKTF-41	10/23/19	18	ND(1)	2.2	73	ND(2)	890	ND(2)	16000	ND(6)
		02/27/20	6.5 J	ND(0.48) J	2.2	52	ND(2)	730	ND(2)	14000	ND(6)
		09/21/20	ND(20)	ND(5)	2.1 J	58	ND(2)	760	ND(2)	13000	ND(6)
		12/15/20	ND(200) UJ	ND(2)	1.95	62	ND(3)	796	ND(5)	--	ND(10)
	MKTF-42	10/23/19	4.4	*ND(10)*	4	59	ND(2)	800	ND(2)	22000	ND(6)
		02/27/20	15 J	ND(1)	2.2	47	1.9 J	620	*ND(10)*	23000	ND(30)
		09/21/20	8 J	ND(5)	2.1 J	52	ND(2)	750	ND(2)	21000	ND(6)
		12/16/20	ND(200)	ND(2)	2.22	50.2	ND(3)	770	ND(5)	--	ND(10)
	MKTF-43	10/24/19	ND(20)	ND(5)	1.1	95	0.7	1100	ND(2)	780000	ND(6)
		02/27/20	ND(20)	ND(5)	0.88 J	53	0.82 J	500	ND(2)	900000	ND(6)
		09/21/20	ND(20)	ND(5)	1.4 J	86	ND(2)	1200	ND(2)	1500000	ND(6)
		12/15/20	316 J	ND(2)	1.39	84.5 J	ND(3)	1430	ND(5)	--	ND(10)
	MKTF-44	10/24/19	31	ND(5)	5.1	110	ND(2)	1900	ND(2)	20000	6.3
		03/05/20	ND(20)	ND(1)	4.5 J	120	ND(2)	1800	ND(2)	37000	6.1
		09/21/20	2100	ND(1)	5.6	160	0.97 J	1800	ND(2)	34000	14
		12/23/20	ND(200)	ND(2)	9.54	40.4	ND(3)	1740	ND(5)	--	ND(10)
	MKTF-45	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-46	4Q2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/06/20	ND(20)	ND(1)	0.52 J	33	ND(2)	140	ND(2)	240000	ND(6)
		09/17/20	ND(20)	ND(1)	0.35 J	61	ND(2)	200	ND(2) UJ	240000	ND(6)
		12/16/20	ND(200)	ND(2)	ND(1)	46.8	ND(3)	196	ND(5)	--	ND(10)
	MKTF-47	03/06/20	ND(20)	ND(1)	0.56 J	33	ND(2)	220	ND(2)	110000	5.3 J
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-48	2Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-49	03/05/20	ND(20)	ND(1)	1.5 J	**5000**	ND(2)	570	ND(2)	230000	ND(6)
		09/20/20	60 J+	ND(5)	1.1 J	**6100**	ND(2)	590	ND(2)	260000	ND(6)
		12/23/20	280	ND(2)	ND(1)	**7120**	ND(3)	677	ND(5)	--	ND(10)
	MKTF-50	03/05/20	ND(20)	ND(1)	6.6	**2300**	ND(2)	880	ND(2)	55000	ND(6)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	1850	ND(2)	3.37 J	**4200**	ND(3)	988	ND(5)	--	ND(10)
Wastewater Treatment Plant	KA-3	10/21/19	ND(20)	0.64	8	1700	0.65	790	ND(2)	110000	ND(6)
		03/04/20	ND(20)	ND(1)	4.8	**2000**	0.43 J	570	ND(2) UJ	110000	ND(6)
		09/22/20	ND(20)	ND(1) UJ	2.9	**3100**	ND(2)	700	ND(2)	110000	ND(6)
		12/17/20	ND(200) UJ	ND(2)	ND(1)	129	ND(3)	1520	ND(5)	--	ND(10)
	LDU - East	11/19/19	160	ND(1)	0.63	54	ND(2)	41	ND(2)	--	73
		03/10/20	570	ND(1)	1.5	53	ND(2)	220	ND(2)	--	**170**
		3Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
		12/17/20	1400 J-	ND(2)	ND(1)	157	ND(3)	ND(100)	ND(5)	--	66.6
	LDU - West	11/19/19	25	ND(1)	ND(5)	63	0.48	490	ND(2)	--	95
		03/10/20	**21000**	ND(5)	1.6 J	41	2.9	170	ND(2)	--	**760**
		3Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
		12/17/20	8440 J	ND(2)	2.85	14.8	ND(3)	ND(100)	ND(5)	--	**2300**
	NAPIS-1	4Q2019 - 3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	NAPIS-2	10/21/19	2.8	0.61	3.6	1900	0.68	760	ND(2)	61000	ND(6)
		03/04/20	ND(20)	ND(1)	2.8	**2300**	0.31 J	520	ND(2) UJ	55000	ND(6)
		09/22/20	ND(20)	ND(1) UJ	3.1 J	1800	ND(2)	600	ND(2)	54000	ND(6)
		12/17/20	ND(200) UJ	ND(2)	3.1	**2510**	ND(3)	554	ND(5)	--	ND(10)
	NAPIS-3	10/21/19	33	0.66	1.9	94	0.54	2000	ND(2)	19000	ND(6)
		03/04/20	ND(20)	ND(1)	1.2 J	92	0.33 J	1500	ND(2) UJ	25000	ND(6)
		09/22/20	ND(20)	ND(1) UJ	0.9 J	94	ND(2)	1300	ND(2)	22000	ND(6)
		12/17/20	ND(200) UJ	ND(2)	3.07	**2170**	ND(3)	688	ND(5)	--	ND(10)
	OAPIS-1	10/21/19	63	ND(5)	9	1300	0.86	1600	ND(2)	140000	ND(6)
		03/04/20	ND(20)	ND(5)	5.3	970	0.39 J	1000	ND(2) UJ	160000	ND(6)
		09/22/20	ND(20)	ND(5) UJ	5.8	930	ND(2)	1400	ND(2)	150000	ND(6)
		12/17/20	ND(200) UJ	ND(2)	5.15	922	ND(3)	1570	ND(5)	--	ND(10)
	STP1-NW	10/22/19	ND(20)	ND(5)	2.4	110	0.88	2000	ND(2)	91000	ND(6)
		03/04/20	ND(20)	ND(5)	2.3 J	49	ND(2)	1800	ND(2) UJ	--	ND(6)
		12/23/20	ND(200)	ND(2)	2.2	117	ND(3)	2240	ND(5)	--	ND(10)
	STP1-SW	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
	Oil Sump LDU	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
	Selected Screening Level		19,914	6	10	2000	4	3,949	5	NA	100

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Cobalt, Dissolved (µg/L)	Copper, Dissolved (µg/L)	Iron, Dissolved (µg/L)	Lead, Dissolved (µg/L)	Magnesium, Dissolved (µg/L)	Manganese, Dissolved (µg/L)	Mercury, Dissolved (µg/L)	Molybdenum, Dissolved (µg/L)	Nickel, Dissolved (µg/L)
Marketing Tank Farm Area	MKTF-37	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/17/20	*ND(6) UJ*	ND(6)	11000	0.76	16000	1200	--	ND(8)	ND(50)
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-38	4Q2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/05/20	*ND(6)*	ND(6)	ND(20)	ND(0.5)	27000	720	--	ND(8)	ND(10)
		09/19/20	*ND(6)*	ND(6)	170	ND(0.17) J	44000	320	--	ND(8)	4.6 J
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-39	11/05/19	*ND(6)*	ND(6)	**29000**	ND(2.5)	260000	**6800**	--	ND(8)	10
		02/05/20	*ND(6)*	ND(6)	**23000 J**	ND(2.5)	220000	**6000**	--	ND(8)	8 J
		09/19/20	*ND(6)*	ND(6)	**25000**	ND(0.24) J	160000	**4100**	--	ND(8)	8.2 J
		12/16/20	*ND(10)*	ND(20)	**32900**	1.64	--	**4740**	ND(0.2)	*ND(100)*	16.6 / ND(16.6) U*
	MKTF-40	10/22/19	*ND(6)*	ND(6)	32	ND(2.5)	45000	21	--	ND(8)	12
		02/28/20	*ND(6)*	1.3 J	10 J	ND(2.5)	37000	0.47 J	--	ND(8)	7 J
		09/19/20	*ND(6)*	ND(6)	13 J	ND(2.5)	49000	0.91 J	--	ND(8)	7.1 J
		12/17/20	*ND(10)*	ND(20)	281 J	1.44	--	ND(10) UJ	ND(0.2)	*ND(100)*	11.6
	MKTF-41	10/23/19	*ND(6)*	3.5	9.1	ND(0.5)	2000	1.3	--	13	ND(10)
		02/27/20	*ND(6)*	ND(6)	ND(20)	ND(0.5)	1700	5.1	--	12	ND(10)
		09/21/20	*ND(6) UJ*	ND(6)	ND(20)	ND(2.5)	1600	6	--	12	ND(10)
		12/15/20	*ND(10)*	ND(20)	ND(200)	ND(1)	--	ND(11.3) J	ND(0.2)	*ND(100)*	ND(6)
	MKTF-42	10/23/19	*ND(6)*	5	30	ND(5)	2700	100	--	38	ND(10)
		02/27/20	*ND(30)*	ND(30)	ND(100)	ND(0.5)	3200 J	50	--	ND(40)	ND(50)
		09/21/20	*ND(6) UJ*	ND(6)	ND(20)	ND(2.5)	3100	41	--	18	ND(10)
		12/16/20	*ND(10)*	ND(20)	ND(200)	ND(1)	--	ND(62.8) J	ND(0.2) UJ	*ND(100)*	16.6 / ND(16.6) U*
	MKTF-43	10/24/19	*ND(6)*	12	14	ND(2.5)	120000	450	--	ND(8)	6.5
		02/27/20	*ND(6)*	4.6 J	9.7 J	ND(2.5)	140000	ND(7.9) J	--	ND(8)	ND(10)
		09/21/20	*ND(6) UJ*	ND(6)	ND(20)	ND(2.5)	250000	1700	--	ND(8)	ND(10)
		12/15/20	*ND(10)*	ND(20)	ND(200) UJ	ND(1)	--	ND(283) J	ND(0.2)	*ND(100)*	ND(6)
	MKTF-44	10/24/19	*ND(6)*	4.8	17	ND(0.5)	1800	1.5	--	ND(8)	ND(10)
		03/05/20	*ND(6)*	ND(6)	ND(20)	ND(0.5)	1800	ND(0.32) J	--	ND(8)	ND(10)
		09/21/20	*ND(6) UJ*	ND(6)	1800	3.7	1900	80	--	ND(8)	3.5 J
		12/23/20	*ND(10)*	ND(20)	ND(200)	ND(1)	--	ND(10)	ND(0.2)	*ND(100)*	ND(6)
	MKTF-45	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-46	4Q2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/06/20	*ND(6)*	ND(6)	ND(20)	ND(0.5)	53000	150	--	ND(8)	ND(10)
		09/17/20	*ND(6) UJ*	ND(6)	23	0.34 J	51000	190	--	ND(8)	3.8 J
		12/16/20	*ND(10)*	ND(20)	ND(200)	ND(1)	--	238	ND(0.2) UJ	*ND(100)*	ND(6)
	MKTF-47	03/06/20	*ND(6)*	ND(6)	ND(20)	ND(0.5)	26000	ND(0.59) J	--	ND(8)	ND(10)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-48	2Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-49	03/05/20	*ND(6)*	ND(6)	5000	ND(0.5)	61000	**5300**	--	ND(8)	7.6 J
		09/20/20	*ND(6) UJ*	ND(6)	9000	ND(0.2) J	65000	**6000**	--	ND(8)	ND(50)
		12/23/20	*ND(10)*	ND(20)	12000	ND(1)	--	**6710**	ND(0.2)	*ND(100)*	7.18
	MKTF-50	03/05/20	*ND(6)*	ND(6)	1600	ND(0.5)	15000	1300	--	8.3	ND(10)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	*ND(10)*	ND(20)	4320	ND(1)	--	**2100**	ND(0.2)	*ND(100)*	8.06 / ND(8.06) U*
Wastewater Treatment Plant	KA-3	10/21/19	*ND(6)*	ND(6)	370	0.13	19000	1500	--	ND(8)	27
		03/04/20	*ND(6)*	ND(6) UJ	350	0.8 J	19000	1600	--	ND(8)	20
		09/22/20	*ND(6) UJ*	ND(6)	53	0.56 J	18000	1500	--	ND(8)	16
		12/17/20	*ND(10)*	ND(20)	ND(200) UJ	ND(1)	--	288	ND(0.2)	*ND(100)*	23.1
	LDU - East	11/19/19	*ND(6)*	ND(6)	280	ND(0.5)	--	330	--	ND(8)	300
		03/10/20	*ND(6)*	ND(6)	99	ND(0.5)	--	480	--	ND(8)	340
		3Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
		12/17/20	*ND(10)*	ND(20)	747 J	ND(1)	--	839	ND(0.2)	*ND(100)*	68.8
	LDU - West	11/19/19	*ND(6)*	ND(6)	**45000**	ND(0.5)	--	**19000**	--	ND(8)	25
		03/10/20	**13**	ND(6)	**510000**	ND(2.5)	--	**38000**	--	ND(8)	**690**
		3Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
		12/17/20	**32.8**	ND(20)	**24700 J**	ND(1)	--	**3150**	ND(0.2)	*ND(100)*	**4160**
	NAPIS-1	4Q2019 - 3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	NAPIS-2	10/21/19	*ND(6)*	ND(6)	1200	ND(0.5)	12000	790	--	ND(8)	10
		03/04/20	*ND(6)*	ND(6) UJ	840	0.58 J	11000	650	--	ND(8)	9.2 J
		09/22/20	*ND(6)*	ND(6)	1000	ND(0.12)	10000	710	--	ND(8)	8.8 J
		12/17/20	*ND(10)*	ND(20)	298 J	ND(1)	--	716	ND(0.2)	*ND(100)*	11.5
	NAPIS-3	10/21/19	*ND(6)*	ND(6)	20	0.11	3300	61	--	ND(8)	13
		03/04/20	*ND(6)*	3.2 J-	ND(20)	ND(0.23) J	4600	190	--	ND(8)	14
		09/22/20	*ND(6) UJ*	ND(6)	30	ND(0.19) J	4000	260	--	ND(8)	19
		12/17/20	*ND(10)*	ND(20)	329 J	ND(1)	--	1550	ND(0.2)	*ND(100)*	36.2 J
	OAPIS-1	10/21/19	*ND(6)*	ND(6)	3200	0.45	27000	1500	--	ND(8)	170
		03/04/20	*ND(6)*	1.8 J-	720	2.6	31000	790	--	12	120
		09/22/20	*ND(6) UJ*	ND(6)	810	3.4	29000	860	--	9.2	170
		12/17/20	*ND(10)*	ND(20)	809 J	5.06	--	884	ND(0.2)	*ND(100)*	209
	STP1-NW	10/22/19	*ND(6)*	ND(6)	26	ND(2.5)	13000	0.56	--	15	ND(10)
		03/04/20	*ND(6)*	ND(6) UJ	32	ND(2.5)	--	ND(2)	--	6.9 J	ND(10)
		12/23/20	*ND(10)*	ND(20)	ND(200)	ND(1)	--	ND(10)	ND(0.2)	*ND(100)*	ND(6)
	STP1-SW	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
	Oil Sump LDU	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
	Selected Screening Level		5.98	790	13,822	NA	NA	2,017	NA	98.7	372

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Potassium, Dissolved (µg/L)	Selenium, Dissolved (µg/L)	Silver, Dissolved (µg/L)	Sodium, Dissolved (µg/L)	Thallium, Dissolved (µg/L)	Uranium, Dissolved (µg/L)	Vanadium, Dissolved (µg/L)	Zinc, Dissolved (µg/L)
Marketing Tank Farm Area	MKTF-37	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/17/20	1900	ND(1)	ND(25)	280000	ND(0.5)	2.1	--	15
		12/4/2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-38	4Q2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/05/20	450 J	7.4	2.2 J	300000	ND(0.5)	18	--	4.7 J
		09/19/20	890 J	7.3	2.8 J	390000	*ND(2.5)*	25	--	9.8 J
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-39	11/05/19	14000	2.7	14	4400000	*ND(2.5)*	4.6	--	29
		02/05/20	12000	ND(5)	12	4200000	*ND(2.5)*	4.9	--	8 J
		09/19/20	13000	ND(5)	5.1	3200000	*ND(2.5)*	4.7	--	21 J
		12/16/20	--	ND(10)	ND(5)	--	ND(1)	ND(5)	--	26.5 / ND(26.5) U*
	MKTF-40	10/22/19	5300	ND(5)	4.6	2100000	*ND(2.5)*	--	--	16
		02/28/20	4400	ND(5)	4.4 J	1800000	*ND(2.5)*	37	--	5.3 J
		09/19/20	5400	ND(5)	3.4 J	2300000	*ND(2.5)*	16	--	620 J
		12/17/20	--	ND(5)	ND(5)	--	ND(1)	4.21 J	--	ND(20)
	MKTF-41	10/23/19	1500	39	ND(5)	670000	ND(0.5)	--	--	11
		02/27/20	1500	38	ND(5)	620000	ND(0.5)	10	--	24
		09/21/20	1300	36	ND(5)	630000	*ND(2.5)*	13	--	61 JB
		12/15/20	--	35.5	ND(5)	--	ND(1)	13.1	--	ND(20)
	MKTF-42	10/23/19	1500	ND(10)	0.94	730000	*ND(5)*	--	--	15
		02/27/20	1400 J	1.6	ND(25)	710000	ND(0.5)	13	--	25 J
		09/21/20	1400	ND(5)	ND(5)	730000	*ND(2.5)*	15	--	11 / ND(11) U*
		12/16/20	--	ND(5)	ND(5)	--	ND(1)	ND(5) UJ	--	90.4 / ND(90.4) U*
	MKTF-43	10/24/19	6100	1.1	14	2600000	*ND(2.5)*	--	--	23
		02/27/20	6300	1 J	16	2200000	*ND(2.5)*	60	--	10 J
		09/21/20	9100	ND(5)	19	3300000	*ND(2.5)*	120	--	ND(10)
		12/15/20	--	ND(5)	ND(5)	--	ND(1)	113	--	ND(20)
	MKTF-44	10/24/19	2000	12	ND(5)	800000	ND(0.5)	--	--	17
		03/05/20	2000	10	ND(5)	760000	ND(0.5)	160	--	7.9 J
		09/21/20	4900	13	ND(5)	810000	0.036 J	150	--	22 / ND(22) U*
		12/23/20	--	11.9	ND(5)	--	ND(1)	162	--	ND(20)
	MKTF-45	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-46	4Q2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/06/20	3500	0.71 J	4.2 J	230000	ND(0.5)	7.4	--	8.4 J
		09/17/20	2600	ND(1)	ND(25)	210000	ND(0.5)	6.7	--	16
		12/16/20	--	ND(5)	ND(5)	--	ND(1)	ND(5)	--	ND(20)
	MKTF-47	03/06/20	5300	4.7	1.8 J	290000	ND(0.5)	11	--	6.2 J
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-48	2Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-49	03/05/20	1500	ND(5)	3.4 J	620000	ND(0.5)	3.8	--	7.7 J
		09/20/20	1400	ND(5)	ND(25)	690000	*ND(2.5)*	4.8 J	--	15 / ND(15) U*
		12/23/20	--	ND(5)	ND(5)	--	ND(1)	ND(5)	--	ND(20)
	MKTF-50	03/05/20	1800	ND(1)	1.1 J	420000	ND(0.5)	0.46 J	--	8.8 J
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	--	ND(5)	ND(5)	--	ND(1)	ND(5)	--	ND(20)
Wastewater Treatment Plant	KA-3	10/21/19	450	0.36	2.8	380000	ND(0.5)	--	--	23
		03/04/20	420 J	0.28 J	2 J	400000	ND(0.5)	4	--	14
		09/22/20	410 J	ND(1)	2.3 J	360000	ND(0.5)	1.2	--	15
		12/17/20	--	ND(5)	ND(5)	--	ND(1)	21.2	--	ND(20)
	LDU - East	11/19/19	--	ND(1)	1.2	--	ND(0.5)	ND(0.5)	--	25
		03/10/20	--	4.3	1.9 J	--	ND(0.5)	0.12 J	--	13
		3Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
		12/17/20	--	ND(5)	ND(5)	--	ND(1)	ND(5)	--	ND(20)
	LDU - West	11/19/19	--	ND(5)	6.1	--	ND(0.5)	0.76	--	27
		03/10/20	--	ND(5)	ND(5)	--	*ND(2.5)*	1 J	--	52
		3Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
		12/17/20	--	ND(5)	ND(5)	--	ND(1)	ND(5)	--	ND(20)
	NAPIS-1	4Q2019 - 3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	NAPIS-2	10/21/19	350	0.31	1.9	300000	ND(0.5)	--	--	6.5
		03/04/20	210 J	0.3 J	ND(5)	270000	ND(0.5)	0.32 J	--	7.5 J
		09/22/20	220 J	ND(1)	ND(5)	270000	ND(0.5)	0.43 J	--	9.1 J
		12/17/20	--	ND(5)	ND(5)	--	ND(1)	ND(5)	--	ND(20)
	NAPIS-3	10/21/19	2300	4.8	ND(5)	670000	ND(0.5)	--	--	35
		03/04/20	2100	0.36 J	ND(5)	610000	ND(0.5)	22	--	19
		09/22/20	2100	1.3	ND(5)	540000	ND(0.5)	22	--	9.2 J
		12/17/20	--	ND(5)	ND(5)	--	ND(1)	ND(5)	--	64.1 J
	OAPIS-1	10/21/19	3700	1.6	3.3	1300000	*ND(2.5)*	--	--	34
		03/04/20	3700	1.6 J	2.7 J	1200000	*ND(2.5)*	71	--	18
		09/22/20	3900	ND(5)	2.3 J	1300000	*ND(2.5)*	69 J	--	17
		12/17/20	--	ND(5)	ND(5)	--	ND(1)	51.7	--	21.6
	STP1-NW	10/22/19	5300	4.1	3.2	1500000	*ND(2.5)*	--	--	36
		03/04/20	--	5.7	1.4 J	--	*ND(2.5)*	29	--	8.9 J
		12/23/20	--	ND(5)	ND(5)	--	ND(1)	28.3	--	ND(20)
	STP1-SW	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
	Oil Sump LDU	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
	Selected Screening Level		NA	50	81.2	NA	2	NA	63.1	5960

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Aluminum, Dissolved (µg/L)	Antimony, Dissolved (µg/L)	Arsenic, Dissolved (µg/L)	Barium, Dissolved (µg/L)	Beryllium, Dissolved (µg/L)	Boron, Dissolved (µg/L)	Cadmium, Dissolved (µg/L)	Calcium, Dissolved (µg/L)	Chromium, Dissolved (µg/L)
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	GWM-2	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	GWM-3	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-59	10/15/19	270	ND(5)	6.1	17	0.71	2500	ND(2)	240000	ND(6)
		03/03/20	5.4 J	ND(5) UJ	4.8 J	6.2	ND(2)	2300	ND(2) UJ	220000	ND(6)
		09/19/20	1400	*ND(10)*	4.7 J	20	ND(2)	2400	ND(2) UJ	210000	ND(6)
		12/23/20	ND(200)	ND(2)	3.75	12.7	ND(3)	2440	ND(5)	--	ND(10)
	OW-60	10/15/19	390	ND(5)	1.8	31	0.53	2500	ND(2)	140000	5.2
		03/03/20	51	ND(5) UJ	1.3 J	13	0.3 J	2200	ND(2) UJ	120000	3.1 J
		09/21/20	300	ND(5) UJ	1.4 J	33	ND(2)	2300	ND(2)	95000	4.5 J
		12/11/20	2460	ND(2)	1.14	47.7	ND(3)	2430	ND(5)	--	ND(10)
Land Treatment Unit	MW-1	09/20/17	--	--	1.3	13	--	--	ND(2)	1700	ND(6)
		09/13/18	--	ND(1)	1.3	12	ND(2)	--	ND(2)	1700	2.4
		12/06/18	--	--	--	--	--	--	--	--	--
		08/12/19	10	ND(1)	1.2	12	ND(2)	750	ND(2)	1800	2.1
		09/22/20	11 J	ND(1) UJ	1.5	12	ND(2)	740	ND(2)	1600	ND(6)
	MW-2	09/20/17	--	--	1.1	18	--	--	ND(2)	1500	ND(6)
		09/13/18	--	ND(1)	0.98	18	ND(2)	--	ND(2)	1600	ND(6)
		12/06/18	--	--	--	--	--	--	--	--	--
		08/13/19	2.7	ND(1)	1.1	17	ND(2)	780	ND(2)	1500	ND(6)
		09/18/20	ND(20)	ND(1)	1	17	ND(2)	730	ND(2) UJ	1600	ND(6)
	MW-4	09/21/17	--	--	0.87	20	--	--	ND(2)	1900	ND(6)
		09/13/18	--	ND(1)	0.72	21	ND(2)	--	ND(2)	1900	ND(6)
		12/06/18	--	--	--	--	--	--	--	--	--
		08/13/19	5.6	ND(1)	0.78	21	ND(2)	380	ND(2)	1800	ND(6)
		09/18/20	7.3 J+	ND(1)	0.75 J	19	ND(2)	360	ND(2) UJ	1900	2.2 J
	MW-5	09/11/17	--	--	1.2	17	--	--	ND(2)	1500	ND(6)
		09/17/18	--	ND(1)	0.93	17	ND(2)	--	ND(2)	1400	ND(6)
		12/06/18	--	--	--	--	--	--	--	--	--
		08/14/19	3.3	ND(1)	0.98	16	ND(2)	750	ND(2)	1400	ND(6)
		09/21/20	ND(20)	ND(1)	0.91 J	17	ND(2)	730	ND(2)	1600	ND(6)
	SMW-2	06/28/17	--	--	--	--	--	--	--	300000	--
		09/11/17	--	--	9.8	16	--	--	ND(2)	340000	1.4
		09/18/18	--	--	4.1	14	--	--	ND(2)	320000	ND(6)
		08/22/19	ND(20)	ND(5)	2.6	14	0.42	1400	ND(2)	320000	ND(6)
		09/19/20	ND(20)	ND(5)	2.4 J	15	ND(2)	1300	ND(2) UJ	300000	ND(6)
	SMW-4	06/28/17	--	--	--	--	--	--	--	4500	--
		09/11/17	--	--	3.2	23	--	--	ND(2)	4400	4.3
		09/12/18	--	ND(1)	2.9	19	ND(2)	--	ND(2)	3700	4.2
		12/06/18	--	--	--	--	--	--	--	--	--
		08/13/19	11	ND(1)	3.1	17	ND(2)	1700	ND(2)	3500	2.6
		09/20/20	43	ND(1)	2.9	14	ND(2)	1700	ND(2)	3100	ND(6)
Evaporation Ponds	EP-2	09/06/18	--	--	9.1	160	--	--	ND(2)	290000	1.6
		04/30/19	100	ND(5)	4.7	250	0.37	480	ND(2)	210000	1.8
		11/21/19	130	ND(5)	7.9	140	0.53	330	ND(2)	100000	8.9
		09/16/20	300 J+	ND(1)	6.2	210	ND(2)	430	ND(2)	150000	ND(6)
		09/17/20	6.5 J+	1.4	ND(1)	1.3 J	ND(2)	ND(40)	ND(2) UJ	450 J	ND(6)
		12/21/20	290	ND(2)	5.09	177 J	ND(3)	432 J	ND(5)	--	ND(10)
	EP-3	09/06/18	--	--	**10**	150	--	--	ND(2)	290000	ND(6)
		04/30/19	86	ND(5)	6.6	240	ND(2)	440	ND(2)	260000	1.6
		11/20/19	130	ND(5)	5.7	150	*ND(20)*	450	*ND(20)*	97000	ND(60)
		09/16/20	650 J+	ND(5)	6.5	210	ND(2)	460	ND(2)	170000	3.4 J
		12/21/20	280	ND(2)	**10**	154	ND(3)	738	ND(5)	--	ND(10)
	EP-4	09/06/18	--	--	**12**	150	--	--	ND(2)	290000	1.6
		04/30/19	74	ND(5)	6.4	240	0.37	450	ND(2)	260000	1.7
		09/17/20	ND(20) UJ	*ND(50)*	**30 J**	250	ND(2)	1200	ND(2)	660000	6.3
		12/21/20	ND(200)	ND(2)	**20.7**	206	ND(3)	1020	ND(5)	--	ND(10)
	EP-5	09/06/18	--	--	**19**	160	--	--	ND(2)	330000	2.8
		04/30/19	51	ND(5)	**11**	190	0.32	470	ND(2)	330000	ND(6)
		09/17/20	ND(20) UJ	*ND(50)*	**21 J**	230	ND(2)	1000	ND(2)	570000	3 J
		12/21/20	ND(200)	2.17	**22.9**	194	ND(3)	1030	ND(5)	--	ND(10)
	EP-6	09/07/18	--	--	**22**	150	--	--	ND(2)	350000	4.2
		04/29/19	29	ND(5)	**13**	200	0.57	480	ND(2)	370000	ND(6)
		09/17/20	ND(20) UJ	*ND(50)*	**19 J**	210	ND(2)	920	ND(2)	510000	4.6 J
		12/21/20	ND(200)	2.15	**28.8**	263	ND(3)	1090	ND(5)	--	ND(10)
	EP-7	09/07/18	--	--	**170**	240	--	--	*ND(10)*	690000	20
		04/29/19	ND(100)	*ND(50)*	**110**	190	1.8	3900	*ND(10)*	760000	ND(30)
		11/20/19	ND(1000)	*ND(100)*	**340**	190	*ND(100)*	**11000**	*ND(100)*	520000	*ND(300)*
		09/17/20	400 J-	*ND(500)*	**330 J**	160	*ND(10)*	**11000**	*ND(10) UJ*	430000	23 J
		12/21/20	ND(200)	*ND(20)*	**443**	250	ND(3)	**11800**	*ND(50)*	--	ND(100)
	EP-8	09/07/18	--	--	**93**	240	--	--	*ND(10)*	620000	11
		04/29/19	ND(100)	*ND(50)*	**110**	190	2	3800	*ND(10)*	760000	ND(30)
		11/20/19	ND(1000)	*ND(100)*	**320**	220	*ND(100)*	**9000**	*ND(100)*	690000	*ND(300)*
		09/17/20	32 J-	*ND(50)*	**310**	230	*ND(10)*	**8900**	*ND(10) UJ*	570000	16 J
		12/22/20	ND(2000)	**20.2**	**564**	ND(100)	ND(3)	**16100**	*ND(50)*	--	ND(100)
	Selected Screening Level		19,914	6	10	2000	4	3,949	5	NA	100

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Cobalt, Dissolved (µg/L)	Copper, Dissolved (µg/L)	Iron, Dissolved (µg/L)	Lead, Dissolved (µg/L)	Magnesium, Dissolved (µg/L)	Manganese, Dissolved (µg/L)	Mercury, Dissolved (µg/L)	Molybdenum, Dissolved (µg/L)	Nickel, Dissolved (µg/L)
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	GWM-2	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	GWM-3	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-59	10/15/19	*ND(6)*	5.6	130	ND(2.5)	64000	30	--	21	23
		03/03/20	*ND(6)*	ND(6) UJ	21	ND(2.5)	63000	84	--	8.6	14
		09/19/20	*ND(6) UJ*	ND(6)	610	ND(0.75) J	60000	220	--	18 J	34
		12/23/20	*ND(10)*	ND(20)	ND(200)	ND(1)	--	69.9	ND(0.2)	*ND(100)*	31.9
	OW-60	10/15/19	*ND(6)*	7.1	140	ND(2.5)	19000	30	--	ND(8)	40
		03/03/20	*ND(6)*	ND(6) UJ	56	ND(2.5)	18000	6.7	--	ND(8)	9.6 J
		09/21/20	*ND(6) UJ*	ND(6)	520	ND(2.5)	16000	55	--	ND(8)	57
		12/11/20	*ND(10)*	ND(20)	1110	ND(1)	--	56	ND(0.2)	*ND(100)*	68.8
Land Treatment Unit	MW-1	09/20/17	--	ND(6)	ND(20)	ND(0.5)	ND(1000)	1.8	--	--	--
		09/13/18	--	ND(6)	ND(20)	ND(0.5)	ND(1000)	2	--	--	--
		12/06/18	--	--	--	--	--	--	--	--	--
		08/12/19	*ND(6)*	ND(6)	ND(20)	0.099	190	1.7	--	7.6	ND(10)
		09/22/20	*ND(6)*	ND(6)	ND(20)	0.82 J	170 J	ND(2) J	--	7.1 J	ND(10)
	MW-2	09/20/17	--	ND(6)	ND(20)	ND(0.5)	ND(1000)	2.8	--	--	--
		09/13/18	--	ND(6)	ND(20)	ND(0.5)	ND(1000)	2.4	--	--	--
		12/06/18	--	--	--	--	--	--	--	--	--
		08/13/19	*ND(6)*	ND(6)	ND(20)	ND(0.5)	150	1.8	--	9.1	ND(10)
		09/18/20	*ND(6)*	ND(6)	ND(20)	ND(0.5)	150 J	3.3 / ND(3.3) U*	--	ND(8)	ND(10)
	MW-4	09/21/17	--	ND(6)	ND(20)	ND(0.5)	ND(1000)	5.2	--	--	--
		09/13/18	--	ND(6)	ND(20)	ND(0.5)	ND(1000)	6.4	--	--	--
		12/06/18	--	--	--	--	--	--	--	--	--
		08/13/19	*ND(6)*	ND(6)	ND(20)	ND(0.5)	200	5.2	--	9.7	ND(10)
		09/18/20	*ND(6) UJ*	ND(6)	ND(20)	ND(0.5)	200 J	4	--	6.6 J	ND(10)
	MW-5	09/11/17	--	ND(6)	ND(20)	ND(0.5)	ND(1000)	4.2	--	--	--
		09/17/18	--	ND(6)	ND(20)	ND(0.5)	ND(1000)	3.9	--	--	--
		12/06/18	--	--	--	--	--	--	--	--	--
		08/14/19	*ND(6)*	ND(6)	ND(20)	ND(0.5)	140	3.7	--	8.3	ND(10)
		09/21/20	*ND(6) UJ*	ND(6)	ND(20)	ND(0.5)	150 J	3.5	--	8.1	ND(10)
	SMW-2	06/28/17	--	--	--	--	90000	--	--	--	--
		09/11/17	--	ND(6)	54	ND(2.5)	96000	310	--	--	--
		09/18/18	--	ND(6)	31	ND(2.5)	96000	330	--	--	--
		08/22/19	*ND(6)*	3.7	26	ND(2.5)	100000	360	--	ND(8)	39
		09/19/20	*ND(6)*	ND(6)	20	ND(2.5)	100000	400	--	ND(8)	42
	SMW-4	06/28/17	--	--	--	--	1200	--	--	--	--
		09/11/17	--	ND(6)	120	0.59	1100	10	--	--	--
		09/12/18	--	ND(6)	79	ND(0.5)	990	4.2	--	--	--
		12/06/18	--	--	--	--	--	--	--	--	--
		08/13/19	**6.6**	ND(6)	ND(20)	ND(0.5)	810	0.56	--	12	ND(10)
		09/20/20	**77**	ND(6)	17 J	0.38 J	670 J	1.4 J	--	9.3	ND(10)
Evaporation Ponds	EP-2	09/06/18	--	ND(6)	95	ND(2.5)	82000	220	--	--	--
		04/30/19	*ND(6)*	ND(6)	300	ND(2.5)	56000	270	--	ND(8)	9.2
		11/21/19	*ND(6)*	4	2700	ND(2.5)	25000	150	--	62	15
		09/16/20	*ND(6)*	ND(6) UJ	1900	ND(2.5)	88000	110	--	ND(8)	51 J-
		09/17/20	*ND(6) UJ*	ND(6)	ND(20)	ND(0.5)	ND(1000)	0.8 J	--	ND(8)	ND(10)
		12/21/20	*ND(10)*	ND(20)	1580 J	ND(1)	--	312 J	ND(0.2)	*ND(100)*	98
	EP-3	09/06/18	--	ND(6)	83	ND(2.5)	91000	220	--	--	--
		04/30/19	*ND(6)*	3.9	330	ND(2.5)	68000	340	--	ND(8)	13
		11/20/19	*ND(60)*	ND(60)	6800	ND(2.5)	34000	350	--	ND(80)	42
		09/16/20	*ND(6)*	ND(6) UJ	2500	ND(0.5)	94000	160	--	ND(8)	56 J-
		12/21/20	*ND(10)*	ND(20)	2250	ND(1)	--	286	ND(0.4)	*ND(100)*	129
	EP-4	09/06/18	--	ND(6)	88	ND(2.5)	100000	200	--	--	--
		04/30/19	*ND(6)*	1.5	310	ND(2.5)	69000	340	--	ND(8)	11
		09/17/20	*ND(6)*	4.5 J	74	ND(25)	260000	1300	--	ND(8) UJ	48 J+
		12/21/20	*ND(10)*	ND(20)	632	ND(1)	--	724	ND(0.4)	*ND(100)*	99.6
	EP-5	09/06/18	--	ND(6)	28	ND(2.5)	160000	150	--	--	--
		04/30/19	*ND(6)*	ND(6)	93	ND(2.5)	110000	450	--	ND(8)	12
		09/17/20	*ND(6)*	ND(6)	130	ND(25)	210000	900	--	ND(8)	46 J+
		12/21/20	*ND(10)*	ND(20)	ND(200)	ND(1)	--	980	ND(0.4)	*ND(100)*	62.8
	EP-6	09/07/18	--	ND(6)	ND(20)	ND(2.5)	180000	130	--	--	--
		04/29/19	*ND(6)*	ND(6)	97	ND(2.5)	120000	460	--	ND(8)	11
		09/17/20	*ND(6)*	ND(6)	19 J	ND(25)	190000	700	--	ND(8) UJ	41
		12/21/20	*ND(10)*	ND(20)	ND(200)	ND(1)	--	1020	ND(0.2)	*ND(100)*	55.9
	EP-7	09/07/18	--	ND(30)	ND(100)	ND(25)	1700000	460	--	--	--
		04/29/19	*ND(30)*	12	ND(100)	ND(10)	1200000	460	--	ND(40)	110
		11/20/19	*ND(300)*	110	ND(1000)	ND(50)	3800000	1300	--	*ND(400)*	250
		09/17/20	*ND(30)*	ND(30)	180	ND(250)	4100000	**4000**	--	ND(40) UJ	330 J+
		12/21/20	*ND(100)*	82.1	ND(200)	ND(10)	--	**3530**	ND(0.2)	*ND(1000)*	**409**
	EP-8	09/07/18	--	ND(30)	ND(20)	ND(10)	970000	940	--	--	--
		04/29/19	*ND(30)*	14	ND(100)	ND(10)	1200000	450	--	ND(40)	120
		11/20/19	*ND(300)*	150	ND(1000)	ND(50)	3200000	**4300**	--	*ND(400)*	230
		09/17/20	*ND(30)*	ND(30)	55 J	ND(2.9) J	3100000	**3200**	--	ND(40) UJ	250
		12/22/20	*ND(100)*	51.7	ND(2000)	ND(10)	--	**3610**	ND(0.2)	*ND(1000)*	**631**
	Selected Screening Level		5.98	790	13,822	NA	NA	2,017	NA	98.7	372

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Potassium, Dissolved (µg/L)	Selenium, Dissolved (µg/L)	Silver, Dissolved (µg/L)	Sodium, Dissolved (µg/L)	Thallium, Dissolved (µg/L)	Uranium, Dissolved (µg/L)	Vanadium, Dissolved (µg/L)	Zinc, Dissolved (µg/L)
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	GWM-2	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	GWM-3	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-59	10/15/19	590	3	5.6	2500000	*ND(2.5)*	--	--	15
		03/03/20	630 J	1.1 J	2.9 J	2400000	*ND(2.5)*	140	--	4.8 J
		09/19/20	700 J	ND(10)	4.3 J	2100000 J+	*ND(5)*	120	--	20 JB
		12/23/20	--	ND(5)	ND(5)	--	ND(1)	136	--	ND(20)
	OW-60	10/15/19	2200	21	3.8	1300000	*ND(2.5)*	--	--	37
		03/03/20	2200	17	2 J	1500000	*ND(2.5)*	59	--	3.6 J
		09/21/20	3000	14	1.8 J	1300000	*ND(2.5)*	53	--	34 JB
		12/11/20	--	15.6	ND(5)	--	ND(1)	52.7	--	ND(20)
Land Treatment Unit	MW-1	09/20/17	690	0.88	ND(0.5)	260000	--	--	--	11
		09/13/18	570	ND(1)	ND(5)	270000	--	9.5	2.2	6.9
		12/06/18	--	--	--	--	--	--	--	--
		08/12/19	590	ND(1)	ND(5)	260000	ND(0.5)	10	--	5.9
		09/22/20	550 J	ND(1)	ND(5)	260000	ND(0.5)	9.7	--	8.1 J
	MW-2	09/20/17	640	0.81	ND(0.5)	270000	--	--	--	ND(10)
		09/13/18	500	ND(1)	ND(5)	270000	--	8	--	7.9
		12/06/18	--	--	--	--	--	--	--	--
		08/13/19	610	ND(1)	ND(5)	280000	ND(0.5)	8.4	--	10
		09/18/20	690 J	ND(1)	ND(5)	250000	ND(0.5)	7.7	--	19 / ND(19) U*
	MW-4	09/21/17	740	0.88	ND(0.5)	280000	--	--	--	11
		09/13/18	590	ND(1)	ND(5)	300000	--	14	--	11
		12/06/18	--	--	--	--	--	--	--	--
		08/13/19	750	ND(1)	ND(5)	310000	ND(0.5)	14	--	6.6
		09/18/20	720 J	ND(1)	ND(25)	--	ND(0.5)	20 J	--	6.9 J
	MW-5	09/11/17	540	1.2	ND(5)	260000	--	9.5	--	29
		09/17/18	600	ND(1)	ND(5)	260000	--	7.5	--	11
		12/06/18	--	--	--	--	--	--	--	--
		08/14/19	610	ND(1)	ND(5)	290000	ND(0.5)	7.8	--	6
		09/21/20	510 J	ND(1)	ND(5)	260000	ND(0.5)	7.7	--	21 J
	SMW-2	06/28/17	750	--	--	2300000	--	--	--	--
		09/11/17	980	24	ND(5)	2200000	--	120	--	33
		09/18/18	740	ND(5)	7.9	2300000	--	99	--	6.5
		08/22/19	720	ND(5)	4.8	2400000	*ND(2.5)*	110	--	ND(10)
		09/19/20	810 J	ND(5)	4.1 J	2200000	*ND(2.5)*	88	--	12 / ND(12) U*
	SMW-4	06/28/17	520	--	--	310000	--	--	--	--
		09/11/17	500	ND(5)	ND(5)	300000	--	31	--	46
		09/12/18	620	ND(1)	ND(5)	300000	--	29	45	9.4
		12/06/18	--	--	--	--	--	--	--	--
		08/13/19	480	ND(1)	ND(5)	300000	ND(0.5)	31	--	7.5
		09/20/20	500 J	ND(1)	ND(5)	280000	ND(0.5)	26	--	11
Evaporation Ponds	EP-2	09/06/18	240000	ND(5)	6.8	1200000	--	1.3	--	6.6
		04/30/19	190000	4.9	3.6	1100000	*ND(2.5)*	1.4	--	26
		11/21/19	42000	6.3	2.2	650000	*ND(2.5)*	0.65	--	64
		09/16/20	200000	ND(5)	2.8 J	2200000	*ND(2.5)*	0.73 J	--	13
		09/17/20	ND(1000)	ND(1)	ND(25)	500 J	ND(0.5)	ND(0.5)	--	590 J
		12/21/20	--	ND(5)	ND(5)	--	ND(1)	ND(5)	--	ND(20)
	EP-3	09/06/18	300000	ND(5)	7.1	1400000	--	1.1	--	5.4
		04/30/19	230000	8.5	4.4	1400000	*ND(2.5)*	1.8	--	45
		11/20/19	210000	6.1	ND(50)	860000	*ND(2.5)*	2.1	--	55
		09/16/20	210000	ND(5)	3.2 J	2200000	*ND(2.5)*	1 J	--	32
		12/21/20	--	ND(5)	ND(5)	--	ND(1)	ND(5)	--	ND(20)
	EP-4	09/06/18	350000	ND(5)	6.5	1800000	--	0.92	--	6.4
		04/30/19	230000	12	4.6	1300000	*ND(2.5)*	1.8	--	19
		09/17/20	680000	ND(50)	10	5500000	*ND(25)*	ND(25)	--	6.5 J / ND(10) U*
		12/21/20	--	ND(5)	ND(5)	--	ND(1)	ND(5)	--	ND(20)
	EP-5	09/06/18	470000	ND(5)	7.7	3500000	--	1.2	--	3.3
		04/30/19	300000	5.7	5.5	2300000	0.41	1.9	--	16
		09/17/20	560000	ND(50)	8.4	4400000	*ND(25)*	ND(25)	--	6.5 J / ND(10) U*
		12/21/20	--	ND(5)	ND(5)	--	ND(1)	ND(5)	--	ND(20)
	EP-6	09/07/18	490000	ND(5)	7.6	3800000	--	1.2	--	3.6
		04/29/19	320000	5	7.1	2300000	*ND(2.5)*	1.9	--	16
		09/17/20	490000	ND(50)	8.5	4300000 J-	*ND(25)*	ND(25)	--	ND(10)
		12/21/20	--	ND(5)	ND(5)	--	ND(1)	ND(5)	--	ND(20)
	EP-7	09/07/18	2300000	ND(50)	27	38000000	--	5.1	--	ND(50)
		04/29/19	1700000	8.9	16	33000000	*ND(10)*	4.8	--	30
		11/20/19	4900000	40	*ND(250)*	91000000	*ND(50)*	9.4	--	ND(500)
		09/17/20	5800000	*ND(500)*	13 J	120000000	*ND(250)*	ND(250)	--	ND(50)
		12/21/20	--	ND(50)	ND(50)	--	*ND(10)*	ND(50)	--	ND(20)
	EP-8	09/07/18	1300000	ND(50)	22	23000000	--	3	--	ND(50)
		04/29/19	1700000	14	19	28000000	*ND(10)*	5	--	19
		11/20/19	4000000	**54**	*ND(250)*	80000000	*ND(50)*	ND(50)	--	ND(500)
		09/17/20	4200000	ND(50)	16 J	85000000 J-	*ND(25)*	6.3 J	--	ND(50)
		12/22/20	--	ND(50)	ND(50)	--	*ND(10)*	ND(50)	--	ND(20)
	Selected Screening Level		NA	50	81.2	NA	2	NA	63.1	5960

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Aluminum, Dissolved (µg/L)	Antimony, Dissolved (µg/L)	Arsenic, Dissolved (µg/L)	Barium, Dissolved (µg/L)	Beryllium, Dissolved (µg/L)	Boron, Dissolved (µg/L)	Cadmium, Dissolved (µg/L)	Calcium, Dissolved (µg/L)	Chromium, Dissolved (µg/L)
Evaporation Ponds	EP-9	09/07/18	--	--	**86**	170	--	--	*ND(10)*	560000	ND(30)
		04/29/19	ND(100)	*ND(20)*	**79**	180	1.9	2400	*ND(10)*	710000	ND(30)
		11/20/19	ND(1000)	*ND(50)*	**110**	160	*ND(100)*	3000	*ND(100)*	1200000	*ND(300)*
		09/17/20	ND(2000) UJ	*ND(50)*	**30 J**	290	*ND(200)*	**7100**	*ND(200) UJ*	840000	*ND(600)*
		12/21/20	ND(200)	*ND(20)*	**364**	361	ND(3)	**9300**	*ND(50)*	--	ND(100)
	EP-11	09/07/18	--	--	**860**	27	--	--	*ND(10)*	200000	47
		04/29/19	ND(100)	**20**	**110**	190	1.7	3900	*ND(10)*	760000	ND(30)
		12/22/20	ND(2000)	*ND(20)*	**580 J**	ND(100)	ND(3)	**18800**	*ND(50)*	--	**112**
	EP-12A	09/07/18	--	--	**49**	84	--	--	ND(2)	740000	8.7
		11/21/19	100	ND(5)	**11**	120	0.61	710	ND(2)	110000	10
		12/22/20	8260	*ND(10)*	**19.4**	162	ND(3)	1410	ND(5)	--	18
	EP-12B	09/07/18	--	--	**16**	160	--	--	ND(2)	280000	2
		04/29/19	100	2.4	**19**	93	0.42	1100	ND(2)	200000	ND(6)
		11/21/19	160	ND(5)	6.6	140	0.57	510	ND(2)	99000	12
		09/18/20	41 J+	5.2	**19**	260	1.1 J	900	ND(2) UJ	1000000	6.2
		12/22/20	ND(400)	*ND(10)*	**15.9**	202	ND(3)	920	ND(5)	--	10.7
	STP-1 to EP-2	08/31/18	--	--	7.5	150	--	--	ND(2)	--	2.3
		11/08/18	--	--	**12**	130	--	--	ND(2)	--	ND(6)
		02/07/19	--	1.4	7.4	260	*ND(10)*	--	*ND(10)*	--	ND(30)
		05/29/19	320	0.81	6.9	250	*ND(10)*	410	*ND(10)*	--	ND(30)
		10/09/19	230	ND(5)	3.2	160	ND(2)	250	ND(2)	--	4.9
		11/21/19	120	ND(5)	7	140	0.45	320	ND(2)	--	8.4
		09/16/20	970 J+	4.2	3.5 J	45	1.4 J	400	ND(2)	--	12
		12/21/20	623	*ND(20)*	ND(10)	88.1	ND(3)	239	ND(5)	--	ND(10)
Western Boundary	BW-1A	3Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-1B	3Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-1C	09/13/17	--	--	0.53	17	--	--	ND(2)	2800	1.4
		09/12/18	--	ND(1)	ND(1)	17	ND(2)	--	ND(2)	2900	1.3
		08/14/19	20	0.46	0.15	17	ND(2)	1600	ND(2)	2900	ND(6)
		09/20/20	18 J	ND(1)	ND(1)	18 J+	ND(2)	1600	ND(2)	3000	ND(6)
	BW-2A	09/13/17	--	--	7.9	130	--	--	ND(2)	8800	ND(6)
		09/12/18	--	ND(1)	7.6	150	ND(2)	--	ND(2)	8600	ND(6)
		08/14/19	--	--	--	--	--	--	--	--	--
		09/20/20	ND(20)	ND(1)	7.8	150 J+	ND(2)	780	ND(2)	8900	ND(6)
	BW-2B	09/13/17	--	--	2.2	42	--	--	ND(2)	12000	ND(6)
		09/12/18	--	ND(1)	0.73	41	ND(2)	--	ND(2)	12000	ND(6)
		08/14/19	51	ND(1)	0.74	39	ND(2)	1700	ND(2)	12000	ND(6)
		09/21/20	ND(20)	ND(1)	0.79 J	38	ND(2)	1800	ND(2)	12000	ND(6)
	BW-2C	09/13/17	--	--	0.79	14	--	--	ND(2)	2000	1.4
		09/18/18	--	--	0.77	18	--	--	ND(2)	2100	ND(6)
		08/14/19	510	ND(1)	0.87	19	ND(2)	1100	ND(2)	2100	3.1
		09/22/20	3600 J	ND(1) UJ	1.3	110 J	ND(2)	1200	ND(2)	11000 J	7.9
	BW-3A	09/14/20	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-3B	09/13/17	--	--	5.2	83	--	--	ND(2)	7700	1.6
		09/12/18	--	ND(1)	4.7	110	ND(2)	--	ND(2)	8000	ND(6)
		08/14/19	ND(20)	ND(1)	5.9	100	ND(2)	980	ND(2)	8000	ND(6)
		09/21/20	ND(20)	ND(1)	5.6	100	ND(2)	990	ND(2)	8300	ND(6)
	BW-3C	09/13/17	--	--	1.3	23	--	--	ND(2)	3400	2.7
		09/18/18	--	--	1	35	--	--	ND(2)	3600	ND(6)
		08/14/19	400	ND(1)	1	29	ND(2)	970	ND(2)	3200	2.4
		09/22/20	2400	ND(1) UJ	0.98 J	140	ND(2)	970	ND(2)	5500	14
	BW-4A	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-4B	03/10/20	1000	ND(0.62) J	9	50	0.34 J	2200	ND(2)	4800	ND(6)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	BW-5A	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-5B	10/16/19	11	ND(1)	2.3	140	0.4	390	ND(2)	5700	2.9
		03/05/20	6.6 J/ ND(20)U*	ND(1)	1.1 J	190	ND(2)	350	ND(2)	7000	ND(6)
		09/20/20	190 J+	ND(1)	0.9 J	200	ND(2)	320	ND(2) UJ	7700	ND(6)
		12/11/20	ND(200)	ND(2)	ND(1)	219	ND(0.004)	372	ND(5)	--	ND(5)
	BW-5C	10/16/19	ND(20)	ND(5)	ND(5)	98	0.35	490	ND(2)	64000	ND(6)
		03/05/20	42 J	ND(0.5) J	0.66 J	55	ND(2)	330	ND(2)	69000	ND(6)
		09/19/20	ND(20)	ND(5)	ND(5)	110	ND(2)	490	ND(2) UJ	84000	ND(6)
		12/09/20	554 J	ND(2)	ND(1)	ND(200)	ND(0.004)	574	ND(5)	--	ND(5)
Deep	OW-01	10/16/19	ND(20)	ND(1)	0.9	37	ND(2)	320	ND(2)	2300	ND(6)
		03/09/20	110	ND(0.43) J	0.87 J	26	ND(2)	320	ND(2)	2500	ND(6)
		09/20/20	25	ND(1)	0.61 J	35 J+	ND(2)	340	ND(2)	2400	ND(6)
		12/11/20	ND(200)	ND(2)	ND(1)	ND(200)	ND(0.004)	376	ND(5)	--	ND(5)
	OW-10	10/17/19	ND(20)	ND(5)	0.98	66	0.39	490	ND(2)	130000	ND(6)
		03/04/20	ND(20)	ND(1)	0.66 J	44	ND(2)	430	ND(2)	91000	ND(6)
		09/20/20	ND(20)	ND(1)	0.63 J	53	ND(2)	510	ND(2)	75000	ND(6)
		12/11/20	ND(200)	ND(2)	ND(1)	51.7	ND(3)	519	ND(5)	--	ND(10)
	OW-11	09/18/17	--	--	2.6	7.8	--	--	ND(2)	12000	2
		09/18/18	--	--	1.8	7.5	--	--	ND(2)	11000	ND(6)
		08/20/19	7.3	ND(1)	1.9	6.8	ND(2)	1300	ND(2)	10000	ND(6)
		09/20/20	7.2 J	ND(1)	2	8.5	ND(2)	1400	ND(2)	12000	ND(6)
	OW-12	09/19/17	--	--	2	20	--	--	ND(2)	1600	4.1
		09/19/18	--	--	2	21	--	--	ND(2)	--	2.5
		09/17/20	27 J-	ND(1)	1.5	18	ND(2)	380	ND(2)	--	2.4 J
	Selected Screening Level		19,914	6	10	2000	4	3,949	5	NA	100

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Cobalt, Dissolved (µg/L)	Copper, Dissolved (µg/L)	Iron, Dissolved (µg/L)	Lead, Dissolved (µg/L)	Magnesium, Dissolved (µg/L)	Manganese, Dissolved (µg/L)	Mercury, Dissolved (µg/L)	Molybdenum, Dissolved (µg/L)	Nickel, Dissolved (µg/L)
Evaporation Ponds	EP-9	09/07/18	--	ND(30)	ND(100)	ND(25)	900000	720	--	--	--
		04/29/19	*ND(30)*	18	76	ND(10)	890000	340	--	ND(40)	75
		11/20/19	*ND(300)*	130	ND(1000)	ND(25)	1300000	1900	--	*ND(400)*	*ND(500)*
		09/17/20	*ND(600)*	ND(600)	ND(2000)	ND(2.8) j	3200000	**3600**	--	*ND(800)*	*ND(1000)*
		12/21/20	*ND(100)*	38.8	ND(200)	ND(10)	--	**3570**	ND(0.2)	*ND(1000)*	243
	EP-11	09/07/18	--	ND(30)	90	ND(100)	9200000	**12000**	--	--	--
		04/29/19	*ND(30)*	20	ND(100)	ND(25)	1200000	410	--	ND(40)	130
		12/22/20	*ND(100)*	ND(20)	ND(2000)	ND(10)	--	**8500**	ND(0.2)	*ND(1000)*	**669**
	EP-12A	09/07/18	--	6.2	750	ND(10)	820000	1600	--	--	--
		11/21/19	*ND(6)*	3	4900	ND(2.5)	68000	570	--	13	86
		12/22/20	**11.7**	ND(20)	6790	ND(5)	--	**5270**	ND(0.2)	*ND(200)*	211
	EP-12B	09/07/18	--	ND(6)	120	ND(2.5)	140000	260	--	--	--
		04/29/19	*ND(6)*	4.6	130	ND(2.5)	250000	66	--	14	30
		11/21/19	*ND(6)*	2.9	7000	ND(2.5)	41000	390	--	18	59
		09/18/20	*ND(6) UJ*	ND(6)	220	ND(0.22) J	280000	1200	--	ND(8)	39 J
		12/22/20	*ND(10)*	ND(20)	828	ND(5)	--	1110	ND(0.2)	*ND(200)*	125
	STP-1 to EP-2	08/31/18	--	ND(6)	170	ND(2.5)	--	360	--	--	--
		11/08/18	--	ND(6)	490	ND(2.5)	--	200	--	--	--
		02/07/19	--	ND(30)	590	ND(0.5)	--	220	--	--	--
		05/29/19	*ND(30)*	ND(30)	1800	ND(0.5)	--	220	--	ND(40)	ND(50)
		10/09/19	5.1	2.5	7500	ND(0.5)	--	250	--	22	30
		11/21/19	*ND(6)*	4.7	2800	ND(2.5)	--	150	--	60	14
		09/16/20	**6.2**	ND(6) UJ	**30000**	ND(0.43) J	--	720	--	ND(8)	**550 J-**
		12/21/20	*ND(10)*	ND(20)	1240	ND(10)	--	276	ND(0.4)	*ND(100)*	12.3 J
Western Boundary	BW-1A	3Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-1B	3Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-1C	09/13/17	--	ND(6)	31	ND(0.5)	420	8.8	--	--	--
		09/12/18	--	ND(6)	24	ND(0.5)	410	9.3	--	--	--
		08/14/19	*ND(6)*	ND(6)	22	ND(0.5)	390	8	--	12	ND(10)
		09/20/20	*ND(6)*	ND(6)	27 J	ND(0.5)	410 J	9.1	--	13	ND(10) UJ
	BW-2A	09/13/17	--	ND(6)	110	ND(0.5)	3400	130	--	--	--
		09/12/18	--	ND(6)	380	ND(0.5)	3200	140	--	--	--
		08/14/19	--	--	--	--	--	--	--	--	--
		09/20/20	**9**	ND(6)	350 J	ND(0.5)	3300	140	--	7.3 J	ND(10) UJ
	BW-2B	09/13/17	--	ND(6)	210	ND(0.5)	3000	160	--	--	--
		09/12/18	--	ND(6)	160	ND(0.5)	2900	150	--	--	--
		08/14/19	*ND(6)*	ND(6)	130	ND(0.5)	2900	150	--	22	ND(10)
		09/21/20	*ND(6) UJ*	ND(6)	190	ND(0.5)	3000	140	--	18	ND(10)
	BW-2C	09/13/17	--	ND(6)	ND(20)	ND(0.5)	350	1.5	--	--	--
		09/18/18	--	ND(6)	170	ND(0.5)	390	12	--	--	--
		08/14/19	*ND(6)*	ND(6)	160	0.19	440	12	--	15	ND(10)
		09/22/20	*ND(6)*	ND(6)	920 J	ND(2.9) J	4200	200 J	--	ND(8)	9.1 J
	BW-3A	09/14/20	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-3B	09/13/17	--	ND(6)	98	ND(0.5)	2700	75	--	--	--
		09/12/18	--	ND(6)	410	ND(0.5)	2600	110	--	--	--
		08/14/19	*ND(6)*	ND(6)	350	ND(0.5)	2600	100	--	12	ND(10)
		09/21/20	*ND(6) UJ*	ND(6)	370	ND(0.5)	2600	100	--	12	ND(10)
	BW-3C	09/13/17	--	ND(6)	44	ND(0.5)	560	13	--	--	--
		09/18/18	--	ND(6)	150	ND(0.5)	560	21	--	--	--
		08/14/19	*ND(6)*	ND(6)	120	0.061	530	17	--	15	ND(10)
		09/22/20	3.1 J	ND(6)	610	1	6600	98	--	8.5	10
	BW-4A	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-4B	03/10/20	*ND(6)*	ND(6)	490	ND(0.16) J	730 J	34	--	25	ND(10)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	BW-5A	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-5B	10/16/19	*ND(6)*	ND(6)	ND(20)	ND(0.5)	580	1.2	--	ND(8)	ND(10)
		03/05/20	*ND(6)*	ND(6)	ND(20)	ND(0.5)	710 J	12	--	ND(8)	ND(10)
		09/20/20	*ND(6) UJ*	ND(6)	87 J	ND(0.5)	770 J	16	--	ND(8)	3.6 J
		12/11/20	*ND(50)*	ND(25)	ND(100)	ND(1)	--	ND(15)	ND(0.2)	ND(40)	ND(40)
	BW-5C	10/16/19	*ND(6)*	1.7	440	ND(2.5)	7900	28	--	ND(8)	ND(10)
		03/05/20	*ND(6)*	ND(6)	340	ND(0.5)	8600	12	--	ND(8)	ND(10)
		09/19/20	*ND(6)*	ND(6)	490	ND(2.5)	10000	31 JB	--	ND(8)	ND(10)
		12/09/20	*ND(50)*	ND(25)	679	ND(1)	--	31.6	0.309	ND(40)	ND(40)
Deep	OW-01	10/16/19	*ND(6)*	ND(6)	ND(20)	ND(0.5)	270	0.7	--	ND(8)	ND(10)
		03/09/20	*ND(6)*	ND(6)	51	ND(0.5)	310 J	5.2	--	ND(8)	ND(10)
		09/20/20	*ND(6)*	ND(6)	15 J	ND(0.5)	280 J	5.9	--	ND(8)	ND(10) UJ
		12/11/20	*ND(50)*	ND(25)	ND(100)	ND(1)	--	ND(15)	ND(0.2)	ND(40)	ND(40)
	OW-10	10/17/19	*ND(6)*	ND(6)	ND(20)	ND(2.5)	22000	160	--	ND(8)	ND(10)
		03/04/20	*ND(6)*	ND(6)	ND(20)	ND(0.11) J	17000	130	--	ND(8)	ND(10)
		09/20/20	*ND(6) UJ*	3.6 J	ND(20)	ND(0.1) J	13000	93	--	ND(8)	ND(10)
		12/11/20	*ND(10)*	ND(20)	ND(200)	ND(1)	--	18.6	ND(0.2)	*ND(100)*	ND(6)
	OW-11	09/18/17	--	4.4	ND(20)	ND(0.5)	1300	19	--	--	--
		09/18/18	--	ND(6)	ND(20)	ND(0.5)	1200	18	--	--	--
		08/20/19	*ND(6)*	4	ND(20)	ND(0.5)	1200	17	--	**170**	ND(10)
		09/20/20	*ND(6)*	ND(6)	ND(20)	ND(0.5)	1400	18	--	**200**	ND(10)
	OW-12	09/19/17	--	ND(6)	49	ND(0.5)	ND(1000)	2.6	--	--	--
		09/19/18	--	ND(6)	69	ND(0.5)	--	4	--	--	--
		09/17/20	*ND(6)*	ND(6)	23	0.69 J	--	2.3	--	8.4	ND(10)
	Selected Screening Level		5.98	790	13,822	NA	NA	2,017	NA	98.7	372

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Potassium, Dissolved (µg/L)	Selenium, Dissolved (µg/L)	Silver, Dissolved (µg/L)	Sodium, Dissolved (µg/L)	Thallium, Dissolved (µg/L)	Uranium, Dissolved (µg/L)	Vanadium, Dissolved (µg/L)	Zinc, Dissolved (µg/L)
Evaporation Ponds	EP-9	09/07/18	1300000	ND(50)	21	28000000	--	ND(25)	--	ND(50)
		04/29/19	1200000	3.5	17	19000000	*ND(10)*	5.3	--	41
		11/20/19	1500000	42	*ND(250)*	33000000	*ND(25)*	ND(50)	--	ND(500)
		09/17/20	3600000	ND(50)	*ND(500)*	85000000 J-	*ND(25)*	ND(25)	--	ND(1000)
		12/21/20	--	ND(50)	ND(50)	--	*ND(10)*	ND(50)	--	ND(20)
	EP-11	09/07/18	7800000	*ND(100)*	14	91000000	--	ND(100)	--	21
		04/29/19	1700000	11	18	36000000	*ND(25)*	5.9	--	32
		12/22/20	--	*ND(500)*	ND(50)	--	*ND(10)*	ND(50)	--	20
	EP-12A	09/07/18	1700000	21	17	15000000	--	15	--	6.4
		11/21/19	380000	4.5	2.3	1500000	*ND(2.5)*	1.5	--	49
		12/22/20	--	ND(25)	ND(5)	--	*ND(5)*	ND(25)	--	51.4
	EP-12B	09/07/18	560000	4.1	7.3	2500000	--	1.2	--	7.2
		04/29/19	810000	5.2	5	4700000	*ND(2.5)*	1.9	--	36
		11/21/19	250000	5.4	1.4	890000	*ND(2.5)*	1.9	--	49
		09/18/20	510000	4.3 J	27 J	5400000	*ND(2.5)*	1.6 J	--	19
		12/22/20	--	ND(25)	ND(5)	--	*ND(5)*	ND(25)	--	ND(20)
	STP-1 to EP-2	08/31/18	--	14	ND(5)	--	--	ND(2.5)	--	17
		11/08/18	--	13	ND(5)	--	--	4	--	40
		02/07/19	--	11	ND(25)	--	ND(0.5)	5.5	--	25
		05/29/19	--	8.4	ND(25)	--	ND(0.5)	0.42	--	33
		10/09/19	--	2	2.3	--	ND(0.5)	1.5	--	40
		11/21/19	--	5.1	2.9	--	*ND(2.5)*	0.69	--	49
		09/16/20	--	ND(5)	ND(5)	--	*ND(2.5)*	ND(2.5)	--	100
		12/21/20	--	ND(50)	ND(5)	--	*ND(10)*	ND(50)	--	63.4
Western Boundary	BW-1A	3Q2020	NS - Dry							
	BW-1B	3Q2020	NS - Dry							
	BW-1C	09/13/17	870	ND(5)	ND(5)	300000	--	9.2	--	10
		09/12/18	1000	ND(1)	ND(5)	320000	--	8.1	--	5.8
		08/14/19	830	ND(1)	ND(5)	340000	ND(0.5)	7.8	--	11
		09/20/20	820 J	ND(1)	ND(5)	300000	ND(0.5)	7.6	--	9.3 J / ND(10) U*
	BW-2A	09/13/17	370	3.1	ND(5)	340000	--	ND(0.5)	--	8.8
		09/12/18	550	ND(1)	ND(5)	340000	--	ND(0.5)	ND(50)	8
		08/14/19	--	--	--	--	--	--	--	--
		09/20/20	340 J	ND(1)	ND(5)	320000	ND(0.5)	0.067 J	--	76 J
	BW-2B	09/13/17	1400	5.5	ND(5)	580000	--	14	--	ND(10)
		09/12/18	1300	ND(1)	ND(5)	580000	--	11	ND(50)	6.3
		08/14/19	1100	ND(1)	ND(5)	620000	ND(0.5)	10	--	8
		09/21/20	1000 J	ND(1)	ND(5)	570000	ND(0.5)	10	--	9.9 J
	BW-2C	09/13/17	640	ND(5)	ND(5)	320000	--	4.6	--	87
		09/18/18	720	ND(1)	ND(5)	300000	--	5.9	--	5
		08/14/19	680	ND(1)	ND(5)	340000	ND(0.5)	5.4	--	9.8
		09/22/20	2900	ND(1)	ND(5)	320000	ND(0.5)	7.7	--	19
	BW-3A	09/14/20	NS - Dry							
	BW-3B	09/13/17	800	2.7	ND(5)	380000	--	0.16	--	ND(10)
		09/12/18	790	ND(1)	ND(5)	390000	--	0.19	ND(50)	7.6
		08/14/19	610	ND(1)	ND(5)	420000	ND(0.5)	0.11	--	5.1
		09/21/20	520 J	ND(1)	ND(5)	370000	ND(0.5)	0.086 J	--	6.5 J
	BW-3C	09/13/17	930	ND(5)	ND(5)	360000	--	1.6	--	14
		09/18/18	1000	ND(1)	ND(5)	350000	--	1.1	--	7.2
		08/14/19	910	ND(1)	ND(5)	380000	ND(0.5)	1.2	--	7.8
		09/22/20	2500	ND(1)	ND(5)	360000	ND(0.5)	1.4	--	350 J
	BW-4A	4Q2019 - 4Q2020	NS - Dry							
	BW-4B	03/10/20	1500	ND(1)	ND(5)	410000	ND(0.5)	78	--	8 J
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	BW-5A	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-5B	10/16/19	1500	1.9	ND(5)	450000	ND(0.5)	35	--	13
		03/05/20	1100	1.2 J	ND(5)	550000	ND(0.5)	31	--	6.4 J
		09/20/20	1200	1.1	ND(5)	590000	ND(0.5)	26	--	13 JB
		12/11/20	--	ND(5)	ND(5)	--	ND(1)	30	--	ND(20)
	BW-5C	10/16/19	4500	ND(5)	1.1	970000	*ND(2.5)*	44	--	26
		03/05/20	3200	0.97 J	ND(5)	1100000	ND(0.5)	46	--	25 J
		09/19/20	3500	ND(5)	ND(5)	1200000	*ND(2.5)*	39	--	14 / ND(14) U*
		12/09/20	--	ND(5)	ND(5)	--	ND(1)	41.4	--	ND(20)
Deep	OW-01	10/16/19	1100	2.5	ND(5)	320000	ND(0.5)	36	--	26
		03/09/20	680 J	2.3	ND(5)	330000	ND(0.5)	37	--	13
		09/20/20	700 J	1.9	ND(5)	320000	ND(0.5)	30	--	17 JB
		12/11/20	--	ND(5)	ND(5)	--	ND(1)	33.7	--	ND(20)
	OW-10	10/17/19	2900	9	3.2	730000	*ND(2.5)*	57	--	7.6
		03/04/20	1300	9.5	1.7 J	710000	ND(0.5)	49	--	12
		09/20/20	1100	11	1.7 J	590000	ND(0.5)	46	--	16
		12/11/20	--	9.81	ND(5)	--	ND(1)	44.4	--	ND(20)
	OW-11	09/18/17	1800	4.2	ND(5)	640000	--	--	--	87
		09/18/18	1700	2.5	ND(5)	630000	--	210	--	9.8
		08/20/19	1600	4.7	ND(5)	600000	ND(0.5)	200	--	3.9
		09/20/20	1700	ND(1)	ND(5)	630000	ND(0.5)	200	--	21 J
	OW-12	09/19/17	850	ND(5)	ND(5)	270000	--	--	--	35
		09/19/18	--	ND(1)	ND(5)	--	--	12	--	8.1
		09/17/20	--	ND(1)	ND(5)	--	ND(0.5)	11	--	11
	Selected Screening Level		NA	50	81.2	NA	2	NA	63.1	5960

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Aluminum, Dissolved (µg/L)	Antimony, Dissolved (µg/L)	Arsenic, Dissolved (µg/L)	Barium, Dissolved (µg/L)	Beryllium, Dissolved (µg/L)	Boron, Dissolved (µg/L)	Cadmium, Dissolved (µg/L)	Calcium, Dissolved (µg/L)	Chromium, Dissolved (µg/L)
Deep	OW-13	10/14/19	ND(20)	ND(1)	0.79	19	ND(2)	340	ND(2)	9300	ND(6)
		03/02/20	ND(20)	ND(1) UJ	0.79 J	19	ND(2)	310	ND(2)	8600	ND(6)
		09/17/20	ND(20) UJ	ND(1)	0.71 J	19	ND(2)	310	ND(2)	--	ND(6)
		12/09/20	ND(200)	ND(2)	ND(1)	ND(200)	ND(0.004)	372	ND(5)	--	ND(5)
	PW-2	09/10/14	--	--	--	--	--	--	--	--	--
		09/18/17	--	--	3.1	14	--	--	ND(2)	160000	ND(6)
		09/21/20	ND(20)	ND(1) UJ	3.7	12	ND(2)	55 JB	ND(2)	--	ND(6)
		12/28/20	ND(200)	ND(2)	2.28	15.1	ND(3)	ND(100)	ND(5)	--	ND(10)
	PW-3	08/28/19	ND (20)	0.87	3.7	9.6	ND (2)	140	ND (2)	--	ND (6)
		09/21/20	ND(20)	ND(5) UJ	3.5 J	9.1	ND(2)	130	ND(2)	--	ND(6)
		12/28/20	ND(200)	ND(2)	2.49	11.7	ND(3)	177	ND(5)	--	ND(10)
	PW-4	08/27/19	--	--	--	--	--	--	--	--	--
		09/21/20	ND(20)	ND(1) UJ	3.2	12	ND(2)	56 JB	ND(2)	--	ND(6)
		12/28/20	ND(200)	ND(2)	2.22	14.7	ND(3)	ND(100)	ND(5)	--	ND(10)
	Selected Screening Level		19,914	6	10	2000	4	3,949	5	NA	100

Notes:
-- = Not Measured
NA = Not Applicable
ND(x) = Not detected, where x = the reporting limit
NS = Not sampled
NS - Dry = Not sampled due to dry well
NS - H2S = Not sampled due to presense of Hydrogen Sulfide
NS - RW = Not sampled due to recovery well in place
NS - SPH = Not sampled due to presense of Separate Phase Hydrocarbons
Q = Quarter
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the selected screening levels.
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
J = Estimated concentration
J- = Estimated concentration, possibly biased low
J+ = Estimated concentration, possibly biased high
JB = Estimated concentration due to blank contamination
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Cobalt, Dissolved (µg/L)	Copper, Dissolved (µg/L)	Iron, Dissolved (µg/L)	Lead, Dissolved (µg/L)	Magnesium, Dissolved (µg/L)	Manganese, Dissolved (µg/L)	Mercury, Dissolved (µg/L)	Molybdenum, Dissolved (µg/L)	Nickel, Dissolved (µg/L)
Deep	OW-13	10/14/19	*ND(6)*	1.5	ND(20)	ND(0.5)	1300	19	--	8.4	ND(10)
		03/02/20	*ND(6)*	ND(6)	ND(20)	ND(0.5)	1300	21	--	ND(8)	ND(10)
		09/17/20	*ND(6)*	ND(6)	ND(20)	ND(0.5)	--	18	--	10	ND(10)
		12/09/20	*ND(50)*	ND(25)	ND(100)	ND(1)	--	26.1	ND(0.2)	ND(40)	ND(40)
	PW-2	09/10/14	--	--	--	--	--	--	--	--	--
		09/18/17	--	ND(6)	28	ND(0.5)	37000	1.2	--	--	--
		09/21/20	*ND(6) UJ*	ND(6)	26	ND(0.5)	--	2.3 JB	--	ND(8)	ND(10)
		12/28/20	*ND(10)*	ND(20)	ND(200)	ND(1)	--	10.6	ND(0.2)	*ND(100)*	ND(6)
	PW-3	08/28/19	ND (6)	ND (6)	28	ND (0.5)	--	1	--	ND (8)	ND (10)
		09/21/20	*ND(6) UJ*	ND(6)	95	ND(2.5)	--	4.6 JB	--	ND(8)	ND(10)
		12/28/20	*ND(10)*	ND(20)	ND(200)	ND(1)	--	17.9	ND(0.2)	*ND(100)*	ND(6)
	PW-4	08/27/19	--	--	--	--	--	--	--	--	--
		09/21/20	*ND(6) UJ*	ND(6)	70	ND(0.5)	--	1.8 J / ND(2) U*	--	ND(8)	ND(10)
		12/28/20	*ND(10)*	ND(20)	ND(200)	ND(1)	--	ND(10)	ND(0.2)	*ND(100)*	ND(6)
	Selected Screening Level		5.98	790	13,822	NA	NA	2,017	NA	98.7	372

Notes:
-- = Not Measured
NA = Not Applicable
ND(x) = Not detected, where x = the reporting limit
NS = Not sampled
NS - Dry = Not sampled due to dry well
NS - H2S = Not sampled due to presense of Hydrogen Sulfide
NS - RW = Not sampled due to recovery well in place
NS - SPH = Not sampled due to presense of Separate Phase Hydrocarbons
Q = Quarter
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the selected screening levels.
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
J = Estimated concentration
J- = Estimated concentration, possibly biased low
J+ = Estimated concentration, possibly biased high
JB = Estimated concentration due to blank contamination
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Well Group	Location ID	Date Sampled	Potassium, Dissolved (µg/L)	Selenium, Dissolved (µg/L)	Silver, Dissolved (µg/L)	Sodium, Dissolved (µg/L)	Thallium, Dissolved (µg/L)	Uranium, Dissolved (µg/L)	Vanadium, Dissolved (µg/L)	Zinc, Dissolved (µg/L)
Deep	OW-13	10/14/19	1200	ND(1)	ND(5)	290000	ND(0.5)	--	--	8.7
		03/02/20	1300	ND(1)	ND(5) UJ	300000 J-	ND(0.5)	16	--	15
		09/17/20	--	ND(1)	ND(5)	--	ND(0.5)	15	--	17
		12/09/20	--	ND(5)	ND(5)	--	ND(1)	15.2	--	ND(20)
	PW-2	09/10/14	--	--	--	--	--	--	--	--
		09/18/17	1300	1.7	ND(5)	18000	--	--	--	41
		09/21/20	--	1.1	3.1 J	--	ND(0.5)	1.6	--	67 JB
		12/28/20	--	ND(5)	ND(5)	--	ND(1)	ND(5)	--	93.8
	PW-3	08/28/19	--	1.1	3.8	--	1.3	ND (0.5)	--	ND (10)
		09/21/20	--	ND(5)	3.6 J	--	*ND(2.5)*	1.6 J	--	27 JB
		12/28/20	--	ND(5)	ND(5)	--	ND(1)	ND(5)	--	38.6
	PW-4	08/27/19	--	--	--	--	--	--	--	--
		09/21/20	--	ND(1)	2.9 J	--	ND(0.5)	1.1	--	380
		12/28/20	--	ND(5)	ND(5)	--	ND(1)	ND(5)	--	ND(20)
	Selected Screening Level		NA	50	81.2	NA	2	NA	63.1	5960

Notes:
-- = Not Measured
NA = Not Applicable
ND(x) = Not detected, where x = the reporting limit
NS = Not sampled
NS - Dry = Not sampled due to dry well
NS - H2S = Not sampled due to presense of Hydrogen Sulfide
NS - RW = Not sampled due to recovery well in place
NS - SPH = Not sampled due to presense of Separate Phase Hydrocarbons
Q = Quarter
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the selected screening levels.
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
J = Estimated concentration
J- = Estimated concentration, possibly biased low
J+ = Estimated concentration, possibly biased high
JB = Estimated concentration due to blank contamination
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Biochemical Oxygen Demand (ug/L)	Bromide (ug/L)	Chemical Oxygen Demand (ug/L)	Chloride (ug/L)	Conductivity (umhos/cm)	Fluoride, Total (ug/L)	Nitrate & Nitrite (ug/L)	Nitrogen, Nitrate (ug/L)	Nitrogen, Nitrate & Nitrite (ug/L)	Nitrogen, Nitrite (ug/L)
Eastern Boundary	OW-14	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-29	10/14/19	--	--	--	--	--	--	--	--	--	--
		02/24/20	--	--	--	--	--	--	ND(1000)	--	--	--
		09/17/20	--	--	--	--	--	--	--	340	--	ND(100)
		12/09/20	--	--	--	--	--	--	--	10000	10000 J-	ND(100)
	OW-30	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-50	10/15/19	--	340	--	42000	--	390	--	--	ND(1000)	--
		03/02/20	--	ND(500)	--	42000	--	420 J	--	ND(500)	--	ND(500)
		09/17/20	--	360	--	40000	1300	460	--	ND(100)	--	ND(100)
		12/09/20	ND(2000)	ND(5000)	10300	45600	--	ND(5000)	--	ND(50)	ND(50) UJ	ND(100)
	OW-52	10/15/19	--	230	--	27000	--	450	--	--	ND(1000)	--
		03/02/20	--	ND(500)	--	27000	--	540	--	ND(500)	--	ND(500)
		09/17/20	--	ND(500)	--	29000	1100	570	--	ND(500)	--	ND(500)
		12/09/20	ND(2000)	ND(5000)	ND(10000)	27800	--	ND(5000)	--	ND(50)	ND(50) UJ	ND(100)
	OW-53	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-54	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-55	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-56	10/15/19	--	1600	--	550000	--	ND(500)	--	--	ND(1000)	--
		03/02/20	--	1800	--	620000	--	360 J	--	ND(500)	--	ND(500)
		09/21/20	--	--	--	--	--	--	--	ND(100)	--	ND(2000)
		12/23/20	--	--	--	483000	--	ND(1000)	--	ND(50)	ND(50)	ND(100) UJ
Tank Farm	OW-57	11/05/19	--	2100	--	140000	--	170	--	ND(500)	--	ND(500)
		03/05/20	--	2100	--	150000	--	480 J	--	ND(500)	--	ND(500)
		09/18/20	--	--	--	--	--	--	--	270 J	--	ND(500) UJ
		12/23/20	--	--	--	139000	--	ND(1000)	--	82	82	ND(100) UJ
	OW-58	11/18/19	--	1800	--	140000	--	500	--	ND(500)	--	ND(500)
		09/17/20	--	--	--	--	--	--	--	180 J	--	ND(500) UJ
		12/22/20	--	--	--	160000	--	ND(1000)	--	ND(50)	ND(50) UJ	ND(100)
	OW-58A	03/06/20	--	2300	--	190000	--	200 J	--	ND(500)	--	ND(500)
		09/18/20	--	--	--	--	--	--	--	160 J	--	ND(500) UJ
		12/23/20	--	--	--	176000	--	ND(1000)	--	ND(50)	ND(50)	ND(100) UJ
	OW-61	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-62	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-63	11/18/19	--	420	--	96000	--	450	--	ND(500)	--	ND(500)
		03/04/20	--	ND(500)	--	86000	--	590	--	ND(500)	--	ND(500)
		09/16/20	--	370 J	--	87000	--	500 J	--	ND(500)	--	ND(500)
		12/11/20	--	--	--	80900	--	ND(1000)	--	ND(100)	--	--
	OW-64	11/18/19	--	2000	--	93000	--	4200	--	ND(500)	--	ND(500)
		03/04/20	--	1400	--	32000	--	4800	--	ND(500)	--	ND(500)
		09/22/20	--	1600	--	52000	--	4700	--	170 J	--	ND(500)
		12/11/20	--	--	--	31600	--	5370	--	ND(100)	--	--
	OW-65	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-1	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-2	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-5	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-6	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Marketing Tank Farm	MKTF-01	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-02	11/19/19	--	--	--	--	--	--	--	--	--	--
		02/25/20	--	1000	--	1300000	--	610	--	ND(500)	--	ND(500)
		09/21/20	--	1200	--	1000000	--	1100	--	ND(500)	--	ND(500)
		12/18/20	--	--	--	3020000	--	ND(1000) UJ	--	ND(100) UJ	--	--
	MKTF-03	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-04	10/30/19	--	2500	--	210000	--	1200	--	ND(500)	--	ND(500)
		03/03/20	--	2500	--	220000	--	560	--	ND(500)	--	ND(500)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-05	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-06	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-07	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-08	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-09	11/18/19	--	1100	--	220000	--	300	--	ND(500)	--	ND(500)
		03/03/20	--	1000	--	290000	--	430 J	--	ND(500)	--	ND(500)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-10	10/30/19	--	590	--	1000000	--	760	--	ND(500)	--	ND(500)
		03/03/20	--	700	--	970000	--	720	--	ND(500)	--	ND(500)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	--	--	--	937000	--	ND(1000) UJ	--	ND(100) UJ	--	--
	Selected Screening Level		NA	NA	NA	250,000	NA	1,600	NA	10,000	10,000	1,000

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Orthophosphate (ug/L)	Orthophosphorus (ug/L)	Sulfate (ug/L)	Diesel Range Organics (ug/L)	Gasoline Range Organics (ug/L)	Motor Oil (ug/L)	Oil Range Organics (ug/L)	C28-C40 (ug/L)	TPH (C6-C10) (ug/L)	Total Dissolved Solids (ug/L)
Eastern Boundary	OW-14	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-29	10/14/19	--	--	--	ND(1000)	2500	ND(5000)	--	--	--	--
		02/24/20	--	--	--	210 J+	2500	--	ND(2500)	--	--	--
		09/17/20	--	--	--	190	ND(250)	--	ND(600)	--	--	--
		12/09/20	--	--	--	292	--	--	--	ND(123)	2950	--
	OW-30	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-50	10/15/19	--	ND(2500)	160000	ND(1000)	ND(50)	ND(5000)	--	--	--	--
		03/02/20	ND(2500)	--	160000	ND(400)	19 J	--	ND(2500)	--	--	--
		09/17/20	ND(500)	--	140000	ND(70)	ND(50)	--	ND(600)	--	--	--
		12/09/20	--	66.8 J-	152000	ND(129)	--	--	--	ND(129)	ND(100)	804000
	OW-52	10/15/19	--	ND(2500)	140000	ND(1000)	ND(50)	ND(5000)	--	--	--	--
		03/02/20	ND(2500)	--	140000	ND(400)	ND(50)	--	ND(2500)	--	--	--
		09/17/20	ND(2500)	--	140000	340	ND(50)	--	ND(600)	--	--	--
		12/09/20	--	ND(50) UJ	138000	ND(126)	--	--	--	ND(126)	ND(100)	626000
	OW-53	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-54	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-55	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-56	10/15/19	--	ND(2500)	20000	740	380	ND(5000)	--	--	--	--
		03/02/20	ND(2500)	--	19000	ND(400)	220	--	ND(2500)	--	--	--
		09/21/20	--	--	--	760 J+	560	--	ND(600)	--	--	--
		12/23/20	--	--	8260	3380 J-	--	--	--	160 J-	2560	--
Tank Farm	OW-57	11/05/19	--	ND(2500)	640	3600	28000	ND(2500)	--	--	--	--
		03/05/20	ND(2500)	--	ND(2500)	2900 J+	20000	--	ND(2500)	--	--	--
		09/18/20	--	--	--	5600 J	33000 J	--	ND(600) UJ	--	--	--
		12/23/20	--	--	ND(1000)	14800 J-	--	--	--	375 J-	24900	--
	OW-58	11/18/19	--	ND(2500)	ND(2500)	2900	75000	ND(2500)	--	--	--	--
		09/17/20	--	--	--	6400 J	78000 J	--	ND(600) UJ	--	--	--
		12/22/20	--	--	ND(1000)	17400	--	--	--	528	64700	--
	OW-58A	03/06/20	ND(2500)	--	28000	2600	31000	--	ND(2500)	--	--	--
		09/18/20	--	--	--	4500 J	31000 J	--	ND(600) UJ	--	--	--
		12/23/20	--	--	8700	12500 J-	--	--	--	ND(146) R	22500	--
	OW-61	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-62	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-63	11/18/19	--	ND(2500)	ND(2500)	2200	31000	ND(2500)	--	--	--	--
		03/04/20	ND(2500)	--	ND(2500)	1800 J+	23000	--	ND(2500)	--	--	--
		09/16/20	ND(2500)	--	ND(2500)	2100	29000	--	ND(600)	--	--	--
		12/11/20	--	--	ND(1000)	5200	--	--	--	ND(147)	23000	--
	OW-64	11/18/19	--	ND(2500)	72000	ND(400)	830	ND(2500)	--	--	--	--
		03/04/20	ND(2500)	--	16000	500 J+	2200	--	ND(2500)	--	--	--
		09/22/20	ND(2500)	--	48000	1200	1300	--	6700	--	--	--
		12/11/20	--	--	22300 JB	1770	--	--	--	ND(145)	591	--
	OW-65	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-1	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-2	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-5	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-6	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Marketing Tank Farm	MKTF-01	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-02	11/19/19	--	--	--	650	2400	ND(2500)	--	--	--	--
		02/25/20	ND(2500)	--	160000	1800 J+	7900	--	ND(2500)	--	--	--
		09/21/20	ND(2500)	--	64000	2100 J+	9800	--	ND(600)	--	--	2760000
		12/18/20	--	--	185000	4550	--	--	--	ND(142)	3150	--
	MKTF-03	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-04	10/30/19	--	ND(2500)	2900	730	10000	ND(2500)	--	--	--	--
		03/03/20	ND(2500)	--	9300	1800	8200	--	ND(2500)	--	--	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-05	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-06	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-07	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-08	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-09	11/18/19	--	ND(2500)	25000	1000	10000	ND(2500)	--	--	--	--
		03/03/20	ND(2500)	--	43000	960	7900	--	ND(2500)	--	--	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-10	10/30/19	--	ND(2500)	ND(2500)	350	40000	ND(2500)	--	--	--	--
		03/03/20	ND(2500)	--	ND(2500)	1300	40000	--	ND(2500)	--	--	--
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	--	--	ND(1000)	5540	--	--	--	ND(129)	31800	--
	Selected Screening Level		NA	NA	600,000	16.7	10.1	85.8	85.8	NA	NA	NA

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Total Suspended Solids (ug/L)	Soluble Salt (ug/L)	Coliform, E-Coli (MPN/100ml)	E-Coli (MPN/100ml)	pH (Std Units)	Resistivity (Mohm/cm)	Temperature (oC)
Eastern Boundary	OW-14	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-29	10/14/19	--	--	--	--	--	--	--
		02/24/20	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--
		12/09/20	--	--	--	--	--	--	--
	OW-30	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-50	10/15/19	--	--	--	--	--	--	--
		03/02/20	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	8.34 J	--	--
		12/09/20	98000	840000	--	--	--	--	19.9 J
	OW-52	10/15/19	--	--	--	--	--	--	--
		03/02/20	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	8.74 J	--	--
		12/09/20	ND(1000)	704000	--	--	--	--	20 J
	OW-53	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-54	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-55	4Q2019 - 4Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
	OW-56	10/15/19	--	--	--	--	--	--	--
		03/02/20	--	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--	--
		12/23/20	--	--	--	--	--	--	--
Tank Farm	OW-57	11/05/19	--	--	--	--	--	--	--
		03/05/20	--	--	--	--	--	--	--
		09/18/20	--	--	--	--	--	--	--
		12/23/20	--	--	--	--	--	--	--
	OW-58	11/18/19	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--
		12/22/20	--	--	--	--	--	--	--
	OW-58A	03/06/20	--	--	--	--	--	--	--
		09/18/20	--	--	--	--	--	--	--
		12/23/20	--	--	--	--	--	--	--
	OW-61	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-62	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	OW-63	11/18/19	--	--	--	--	--	--	--
		03/04/20	--	--	--	--	--	--	--
		09/16/20	--	--	--	--	--	--	--
		12/11/20	--	--	--	--	--	--	--
	OW-64	11/18/19	--	--	--	--	--	--	--
		03/04/20	--	--	--	--	--	--	--
		09/22/20	--	--	--	--	--	--	--
		12/11/20	--	--	--	--	--	--	--
	OW-65	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-1	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-2	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-5	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	RW-6	4Q2019 - 3Q2020	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW	NS - RW
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
Marketing Tank Farm	MKTF-01	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-02	11/19/19	--	--	--	--	--	--	--
		02/25/20	--	--	--	--	--	--	--
		09/21/20	20000	--	--	--	--	--	--
		12/18/20	--	--	--	--	--	--	--
	MKTF-03	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-04	10/30/19	--	--	--		--		--
		03/03/20	--	--	--		--		--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-05	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-06	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-07	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-08	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-09	11/18/19	--	--	--	--	--	--	--
		03/03/20	--	--	--	--	--	--	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-10	10/30/19	--	--	--	--	--	--	--
		03/03/20	--	--	--	--	--	--	--
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/18/20	--	--	--	--	--	--	--
	Selected Screening Level		NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Biochemical Oxygen Demand (ug/L)	Bromide (ug/L)	Chemical Oxygen Demand (ug/L)	Chloride (ug/L)	Conductivity (umhos/cm)	Fluoride, Total (ug/L)	Nitrate & Nitrite (ug/L)	Nitrogen, Nitrate (ug/L)	Nitrogen, Nitrate & Nitrite (ug/L)	Nitrogen, Nitrite (ug/L)
	MKTF-11	10/30/19	--	1000	--	750000	--	1400	--	ND(500)	--	ND(500)
		03/03/20	--	1000	--	1500000	--	890	--	ND(500)	--	ND(500)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-12	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-13	10/29/19	--	740	--	290000	--	380	--	ND(500)	--	ND(500)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-14	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-15	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-16	10/30/19	--	1800	--	170000	--	810	--	ND(500)	--	ND(500)
		1Q2020 - 3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/23/20	--	--	--	--	--	--	--	--	--	--
	MKTF-17	10/29/19	--	1300	--	240000	--	820	--	ND(500)	--	ND(500)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-18	10/29/19	--	990	--	220000	--	760	--	ND(500)	--	ND(500)
		02/06/20	--	680	--	200000	--	770	--	ND(500)	--	ND(500)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	--	--	--	279000	--	ND(1000)	--	ND(100)	--	--
	MKTF-19	10/29/19	--	1400	--	130000	--	ND(500)	--	ND(500)	--	ND(500)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-20	11/05/19	--	610	--	140000	--	ND(500)	--	ND(500)	--	ND(500)
		02/05/20	--	--	--	--	--	--	--	--	--	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-21	11/05/19	--	1900	--	2300000	--	2400	--	ND(500)	--	ND(500)
		02/05/20	--	--	--	--	--	--	--	--	--	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-22	10/24/19	--	1200	--	190000	--	410	--	ND(500)	--	ND(500)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-23	10/29/19	--	1000	--	440000	--	750	--	ND(500)	--	ND(500)
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-24	10/23/19	--	1100	--	660000	--	150	--	ND(500)	--	ND(500)
		11/19/19	13000	--	60800	--	--	--	--	ND(500)	--	ND(500)
		02/25/20	--	1500	--	940000	--	ND(500)	--	120 J	--	ND(500)
		09/19/20	--	1800	--	950000	--	ND(500)	ND(1000)	--	--	--
		12/18/20	--	--	--	893000	--	ND(1000) UJ	--	ND(100) UJ	--	--
	MKTF-25	10/23/19	--	1400	--	1400000	--	ND(500)	--	ND(500)	--	ND(500)
Marketing Tank Farm		11/18/19	6000	--	70900	--	--	--	--	14	--	ND(2000)
		02/27/20	--	1600	--	980000	--	ND(500)	ND(2000)	--	--	--
		12/18/20	--	--	--	844000	--	ND(1000) UJ	--	ND(100) UJ	--	--
	MKTF-26	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-27	10/23/19	--	ND(500)	--	2900000	--	1400	--	1200	--	ND(500)
		02/25/20	--	3000	--	7000000	--	ND(500)	--	5700	--	ND(2000)
		09/20/20	--	1900	--	2700000	--	1500	--	560	--	ND(2000)
		12/18/20	--	--	--	3400000	--	1920 J-	--	767 J-	--	--
	MKTF-28	10/22/19	--	2100	--	460000	--	1200	--	560	--	ND(500)
		02/25/20	--	2200	--	570000	--	1100	--	260 J	--	ND(500)
		09/20/20	--	2200	--	630000	--	1100	--	250J/ND(500)U*	--	ND(500)
		12/18/20	--	--	--	676000	--	1240 J-	--	ND(100) UJ	--	--
	MKTF-29	10/22/19	--	1500	--	1000000	--	420	--	ND(500)	--	ND(500)
		11/18/19	ND(2000)	--	56500	--	--	--	--	72	--	ND(2000)
		02/25/20	--	2700	--	1500000	--	ND(500)	--	ND(500)	--	ND(500)
		09/20/20	--	2700	--	18000000	--	ND(500)	--	140J/ND(500)U*	--	ND(2000)
		12/15/20	--	--	--	1670000	--	ND(1000)	--	ND(100)	--	--
	MKTF-30	10/23/19	--	ND(500)	--	480000	--	1100	--	ND(500)	--	ND(500)
		11/18/19	ND(2000)	--	23500	--	--	--	--	160	--	ND(2000)
		02/27/20	--	1000	--	520000	--	1100	--	140 J	--	ND(500)
		09/20/20	--	1200	--	510000	--	1000	--	110J/ND(500)U*	--	ND(500)
		12/15/20	--	--	--	583000	--	1120	--	ND(100)	--	--
	MKTF-31	10/22/19	--	1600	--	770000	--	ND(500)	--	95	--	ND(500)
		11/18/19	ND(2000)	--	26300	--	--	--	--	52	--	ND(2000)
		02/25/20	--	1600	--	820000	--	ND(500)	--	ND(500)	--	ND(500)
		09/19/20	--	1500	--	550000	--	ND(500)	76 J	--	--	--
		12/18/20	--	--	--	604000	--	ND(1000) UJ	--	ND(100) UJ	--	--
	MKTF-32	10/23/19	--	1100	--	400000	--	370	--	ND(500)	--	ND(500)
		02/27/20	--	1200	--	400000	--	300 J	--	ND(500)	--	ND(500)
		09/21/20	--	1200	--	370000	--	360 J	--	ND(500)	--	ND(500)
		12/15/20	--	--	--	324000	--	ND(1000)	--	ND(100)	--	--
	MKTF-33	10/24/19	--	830	--	110000	--	380	--	ND(500)	--	ND(500)
		02/28/20	--	830	--	130000	--	270 J	--	310 J	--	ND(500)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-34	10/29/19	--	1100	--	450000	--	500	--	14000	--	ND(500)
		02/05/20	--	ND(500)	--	560000	--	560	--	16000	--	ND(500)
		02/28/20	--	290 J	--	860000	--	620	--	12000	--	ND(500)
		09/16/20	--	920	--	490000	2500	560	--	8400	--	ND(500)
	Selected Screening Level		NA	NA	NA	250,000	NA	1,600	NA	10,000	10,000	1,000

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Orthophosphate (ug/L)	Orthophosphorus (ug/L)	Sulfate (ug/L)	Diesel Range Organics (ug/L)	Gasoline Range Organics (ug/L)	Motor Oil (ug/L)	Oil Range Organics (ug/L)	C28-C40 (ug/L)	TPH (C6-C10) (ug/L)	Total Dissolved Solids (ug/L)
	MKTF-11	10/30/19	--	ND(2500)	4400	180	32000	ND(2500)	--	--	--	--
		03/03/20	ND(2500)	--	19000	500	18000	--	ND(2500)	--	--	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-12	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-13	10/29/19	--	ND(2500)	590	7300	23000	ND(2500)	--	--	--	--
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-14	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-15	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-16	10/30/19	--	ND(2500)	240	33000	ND(2500)	--	--	--	--	--
		1Q2020 - 3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/23/20	--	--	--	--	--	--	--	--	32000	--
	MKTF-17	10/29/19	--	ND(2500)	6200	700	78000	ND(2500)	--	--	--	--
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-18	10/29/19	--	ND(2500)	570	200	730	ND(2500)	--	--	--	--
		02/06/20	ND(2500)	--	ND(2500)	ND(400)	820	--	ND(2500)	--	--	--
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	--	--	ND(1000)	2930	--	--	--	ND(148)	1250	--
	MKTF-19	10/29/19	--	ND(2500)	500	1000	17000	ND(2500)	--	--	--	--
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-20	11/05/19	--	ND(2500)	1700	1500	7000	ND(2500)	--	--	--	--
		02/05/20	--	--	--	1000	4600	--	ND(2500)	--	--	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-21	11/05/19	--	ND(2500)	19000	2700	27000	ND(2500)	--	--	--	--
		02/05/20	--	--	--	310 J	740	--	ND(2500)	--	--	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-22	10/24/19	--	ND(2500)	2900	280	9000	ND(2500)	--	--	--	--
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-23	10/29/19	--	ND(2500)	1700	2200000	55000	ND(125000)	--	--	--	--
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-24	10/23/19	--	ND(2500)	20000	ND(400)	17000	ND(2500)	--	--	--	--
		11/19/19	--	--	--	--	--	--	--	--	--	--
		02/25/20	ND(2500)	--	27000	710	7200	--	ND(2500)	--	--	--
		09/19/20	ND(2500) R	--	35000	380 J-	15000	--	ND(600) UJ	--	--	--
		12/18/20	--	--	21800 JB	2470	--	--	--	ND(126)	--	--
	MKTF-25	10/23/19	--	ND(2500)	73000	ND(400)	3000	ND(2500)	--	--	--	--
		11/18/19	--	--	--	--	--	--	--	--	--	--
Marketing Tank Farm		02/27/20	ND(2500) R	--	76000	320 J	2500	--	ND(2500)	--	--	--
		12/18/20	--	--	68000	1860	--	--	--	ND(142)	--	--
	MKTF-26	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-27	10/23/19	--	ND(2500)	570000	ND(400)	ND(50)	ND(2500)	--	--	--	--
		02/25/20	ND(2500)	--	1100000	ND(400)	6.8 J	--	ND(2500)	--	--	--
		09/20/20	ND(2500)	--	520000	190	ND(50)	--	ND(600)	--	--	6820000
		12/18/20	--	--	430000	1340	--	--	--	444	ND(100)	--
	MKTF-28	10/22/19	--	ND(2500)	190000	ND(400)	ND(50)	ND(2500)	--	--	--	--
		02/25/20	ND(2500)	--	160000	ND(400)	11 J	--	ND(2500)	--	--	--
		09/20/20	ND(2500)	--	130000	110	ND(50)	--	ND(600)	--	--	1870000
		12/18/20	--	--	133000	336	--	--	--	ND(134)	ND(100)	--
	MKTF-29	10/22/19	--	ND(2500)	320000	ND(400)	ND(50)	ND(2500)	--	--	--	--
		11/18/19	--	--	--	--	--	--	--	--	--	--
		02/25/20	ND(2500)	--	230000	210 J	13 J	--	ND(2500)	--	--	--
		09/20/20	ND(2500)	--	160000	260	ND(50)	--	ND(600)	--	--	4010000
		12/15/20	--	--	106000	847	--	--	--	ND(131)	ND(100)	--
	MKTF-30	10/23/19	--	ND(2500)	480000	ND(400)	31	ND(2500)	--	--	--	--
		11/18/19	--	--	--	--	--	--	--	--	--	--
		02/27/20	ND(2500)	--	530000	ND(400)	51	--	ND(2500)	--	--	--
		09/20/20	ND(2500)	--	520000	ND(70)	30 J	--	ND(600)	--	--	2430000
		12/15/20	--	--	529000	368	--	--	--	ND(138)	ND(100)	--
	MKTF-31	10/22/19	--	ND(2500)	72000	ND(400)	96	ND(2500)	--	--	--	--
		11/18/19	--	--	--	--	--	--	--	--	--	--
		02/25/20	ND(2500)	--	68000	ND(400)	220	--	ND(2500)	--	--	--
		09/19/20	ND(2500) R	--	59000	200 J-	74	--	ND(600) UJ	--	--	--
		12/18/20	--	--	58700	800	--	--	--	ND(141)	276	--
	MKTF-32	10/23/19	--	ND(2500)	90000	ND(400)	280	ND(2500)	--	--	--	--
		02/27/20	ND(2500)	--	91000	ND(400)	600	--	ND(2500)	--	--	--
		09/21/20	ND(2500)	--	84000	220 J+	28 J	--	ND(600)	--	--	1480000
		12/15/20	--	--	65500	631	--	--	--	ND(140)	856	--
	MKTF-33	10/24/19	--	ND(2500)	190000	ND(400)	490	ND(2500)	--	--	--	--
		02/28/20	ND(2500)	--	170000	ND(400)	730	--	ND(2500)	--	--	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-34	10/29/19	--	ND(2500)	200000	ND(400)	ND(50)	ND(2500)	--	--	--	--
		02/05/20	ND(2500)	--	82000	ND(400)	ND(50)	--	ND(2500)	--	--	--
		02/28/20	ND(2500)	--	52000	ND(400)	ND(50)	--	ND(2500)	--	--	--
		09/16/20	ND(2500)	--	120000	ND(70) UJ	40 J	--	ND(600) UJ	--	--	--
	Selected Screening Level		NA	NA	600,000	16.7	10.1	85.8	85.8	NA	NA	NA

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Total Suspended Solids (ug/L)	Soluble Salt (ug/L)	Coliform, E-Coli (MPN/100ml)	E-Coli (MPN/100ml)	pH (Std Units)	Resistivity (Mohm/cm)	Temperature (oC)
	MKTF-11	10/30/19	--	--	--	--	--	--	--
		03/03/20	--	--	--	--	--	--	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-12	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-13	10/29/19	--	--	--	--	--	--	--
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-14	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-15	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-16	10/30/19	--	--	--	--	--	--	--
		1Q2020 - 3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/23/20	--	--	--	--	--	--	--
	MKTF-17	10/29/19	--	--	--	--	--	--	--
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-18	10/29/19	--	--	--	--	--	--	--
		02/06/20	--	--	--	--	--	--	--
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	--	--	--	--	--	--	--
	MKTF-19	10/29/19	--	--	--	--	--	--	--
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-20	11/05/19	--	--	--	--	--	--	--
		02/05/20	--	--	--	--	--	--	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-21	11/05/19	--	--	--	--	--	--	--
		02/05/20	--	--	--	--	--	--	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-22	10/24/19	--	--	--	--	--	--	--
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-23	10/29/19	--	--	--	--	--	--	--
		1Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-24	10/23/19	--	--	--	--	--	--	--
		11/19/19	--	--	--	--	--	--	--
		02/25/20	--	--	--	--	--	--	--
		09/19/20	--	--	--	--	--	--	--
		12/18/20	--	--	--	--	--	--	--
	MKTF-25	10/23/19	--	--	--	--	--	--	--
		11/18/19	--	--	--	--	--	--	--
Marketing Tank Farm		02/27/20	--	--	--	--	--	--	--
		12/18/20	--	--	--	--	--	--	--
	MKTF-26	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-27	10/23/19	--	--	--	--	--	--	--
		02/25/20	--	--	--	--	--	--	--
		09/20/20	11000	--	--	--	--	--	--
		12/18/20	--	--	--	--	--	--	--
	MKTF-28	10/22/19	--	--	--	--	--	--	--
		02/25/20	--	--	--	--	--	--	--
		09/20/20	24000	--	--	--	--	--	--
		12/18/20	--	--	--	--	--	--	--
	MKTF-29	10/22/19	--	--	--	--	--	--	--
		11/18/19	--	--	--	--	--	--	--
		02/25/20	--	--	--	--	--	--	--
		09/20/20	ND(4000)	--	--	--	--	--	--
		12/15/20	--	--	--	--	--	--	--
	MKTF-30	10/23/19	--	--	--	--	--	--	--
		11/18/19	--	--	--	--	--	--	--
		02/27/20	--	--	--	--	--	--	--
		09/20/20	320000	--	--	--	--	--	--
		12/15/20	--	--	--	--	--	--	--
	MKTF-31	10/22/19	--	--	--	--	--	--	--
		11/18/19	--	--	--	--	--	--	--
		02/25/20	--	--	--	--	--	--	--
		09/19/20	--	--	--	--	--	--	--
		12/18/20	--	--	--	--	--	--	--
	MKTF-32	10/23/19	--	--	--	--	--	--	--
		02/27/20	--	--	--	--	--	--	--
		09/21/20	16000	--	--	--	--	--	--
		12/15/20	--	--	--	--	--	--	--
	MKTF-33	10/24/19	--	--	--	--	--	--	--
		02/28/20	--	--	--	--	--	--	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-34	10/29/19	--	--	--	--	--	--	--
		02/05/20	--	--	--	--	--	--	--
		02/28/20	--	--	--	--	--	--	--
		09/16/20	--	--	--	--	7.52 J	--	--
	Selected Screening Level		NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Biochemical Oxygen Demand (ug/L)	Bromide (ug/L)	Chemical Oxygen Demand (ug/L)	Chloride (ug/L)	Conductivity (umhos/cm)	Fluoride, Total (ug/L)	Nitrate & Nitrite (ug/L)	Nitrogen, Nitrate (ug/L)	Nitrogen, Nitrate & Nitrite (ug/L)	Nitrogen, Nitrite (ug/L)
Marketing Tank Farm	MKTF-35	10/29/19	--	1000	--	220000	--	870	--	ND(500)	--	ND(500)
		02/06/20	--	1000	--	240000	--	750	--	ND(500)	--	ND(500)
		09/16/20	--	750	--	360000	2200	990	--	ND(500)	--	ND(500)
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-36	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/18/20	--	730 J	--	240000 J	1900 J	790 J	--	110 J	--	ND(500) UJ
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-37	4Q2019 - 1Q2020	--	570 J	--	190000 J	1700 J	ND(500) UJ	--	ND(500) UJ	--	ND(500) UJ
		09/17/20	ND(20)	ND(1)	**2.6**	1700	ND(2)	510	ND(2) UJ	72000	ND(6)	*ND(6) UJ*
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-38	4Q2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/05/20	--	690	--	290000	--	870	--	12000	--	150 J
		09/19/20	--	810	--	630000	--	1000	11000	--	--	--
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-39	11/05/19	--	ND(500)	--	7500000	--	ND(2000)	--	--	ND(10000)	--
		02/05/20	--	ND(2000)	--	7500000	--	ND(500)	ND(10000)	--	--	--
		09/19/20	--	1700	--	6200000	--	410 J	1300 J	--	--	--
		12/16/20	--	--	--	6020000	--	ND(1000)	--	ND(100)	--	--
	MKTF-40	10/22/19	--	1400	--	2800000	--	ND(500)	--	170	--	ND(2000)
		11/19/19	ND(2000)	--	117000	--	--	--	--	ND(500)	--	ND(2000)
		02/28/20	--	1200	--	2900000	--	ND(500)	--	140 J	--	ND(2000)
		09/19/20	--	1600	--	3000000	--	ND(500)	ND(4000)	--	--	--
		12/17/20	--	--	--	3160000	--	ND(1000)	--	ND(100) UJ	--	--
	MKTF-41	10/23/19	--	2100	--	800000	--	440	--	4800	--	ND(500)
		02/27/20	--	2300	--	880000	--	370 J	--	5300	--	190 J
		09/21/20	--	2300	--	770000	--	360 J	--	5400	--	250 J
		12/15/20	--	--	--	839000	--	ND(1000)	--	5450	--	--
	MKTF-42	10/23/19	--	1200	--	940000	--	780	--	ND(500)	--	ND(500)
		02/27/20	--	1500	--	1100000	--	970	--	ND(500)	--	ND(500)
		09/21/20	--	1600	--	880000	--	1100	--	120 J	--	ND(500)
		12/16/20	--	--	--	909000	--	1310	--	ND(100)	--	--
	MKTF-43	10/24/19	--	2500	--	5100000	--	ND(500)	--	12000	--	ND(2000)
		02/27/20	--	3500	--	5600000	--	290 J	--	11000	--	ND(2000)
		09/21/20	--	6200	--	6900000	--	320 J	--	3500	--	ND(2000)
		12/15/20	--	--	--	8080000	--	ND(1000)	--	2760	--	--
	MKTF-44	10/24/19	--	600	--	810000	--	ND(500)	--	4900	--	ND(500)
		03/05/20	--	730	--	830000	--	200 J	--	4600	--	ND(500)
		09/21/20	--	780	--	780000	--	ND(500)	--	5500	--	ND(500)
		12/23/20	--	--	--	302000	--	ND(1000)	--	1850	--	--
	MKTF-45	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-46	03/06/20	--	410 J	--	560000	--	370 J	--	9400	--	ND(500)
		09/17/20	--	370 J	--	610000 J	--	500 J	--	7700 J	--	ND(500) UJ
		12/16/20	--	--	--	575000	--	ND(1000)	--	7480	--	--
	MKTF-47	03/06/20	--	480 J	--	380000	--	760	--	11000	--	ND(500)
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-48	2Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-49	03/05/20	--	1600	--	1000000	--	ND(500)	--	130 J	--	ND(500)
		09/20/20	--	1300	--	1100000	--	ND(500)	--	130J/ND(500)U*	--	ND(500)
		12/23/20	--	--	--	1560000	--	ND(1000)	--	ND(100)	--	--
	MKTF-50	03/05/20	--	2500	--	360000	--	1500	--	ND(500)	--	ND(500)
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	--	--	--	665000	--	3300	--	4310	--	--
Wastewater Treatment Plant	KA-3	10/21/19	--	1900	--	240000	--	960	--	ND(500)	--	ND(500)
		03/04/20	--	1800	--	280000	--	290 J	--	ND(500)	--	ND(500)
		09/22/20	--	1500	--	240000	--	760	--	180 J	--	ND(500)
		12/17/20	--	--	--	342000	--	ND(1000)	--	1090	--	--
	LDU - East	11/19/19	--	--	--	--	--	--	--	--	--	--
		03/10/20	--	--	--	--	--	--	--	--	--	--
		3Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
		12/17/20	--	--	--	--	--	--	--	--	--	--
	LDU - West	11/19/19	--	--	--	--	--	--	--	--	--	--
		03/10/20	--	--	--	--	--	--	--	--	--	--
		3Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
		12/17/20	--	--	--	--	--	--	--	--	--	--
	NAPIS-1	4Q2019 - 3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	NAPIS-2	10/21/19	--	940	--	180000	--	2200	--	ND(500)	--	ND(500)
		03/04/20	--	790	--	150000	--	1900	--	1900	--	ND(500)
		09/22/20	--	680	--	130000	--	2200	--	200 J	--	ND(500)
		12/17/20	--	--	--	173000	--	2040 J+	--	ND(100)	--	--
	NAPIS-3	10/21/19	--	2800	--	440000	--	670	--	4900	--	ND(500)
		03/04/20	--	2400	--	360000	--	620	--	3900	--	ND(500)
		09/22/20	--	1700	--	290000	--	470 J	--	850	--	ND(500)
		12/17/20	--	--	--	266000	--	ND(1000)	--	ND(100)	--	--
	Selected Screening Level		NA	NA	NA	250,000	NA	1,600	NA	10,000	10,000	1,000

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Orthophosphate (ug/L)	Orthophosphorus (ug/L)	Sulfate (ug/L)	Diesel Range Organics (ug/L)	Gasoline Range Organics (ug/L)	Motor Oil (ug/L)	Oil Range Organics (ug/L)	C28-C40 (ug/L)	TPH (C6-C10) (ug/L)	Total Dissolved Solids (ug/L)
Marketing Tank Farm	MKTF-35	10/29/19	--	ND(2500)	36000	480	730	ND(2500)	--	--	--	--
		02/06/20	ND(2500)	--	ND(2500)	ND(400)	33000	--	ND(2500)	--	--	--
		09/16/20	ND(2500)	--	ND(2500)	1100 JB	13000	--	ND(600)	--	--	--
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-36	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/18/20	ND(2500) UJ	--	ND(2500) UJ	15000 J	100000 J-	--	ND(6000) UJ	--	--	1040000
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-37	4Q2019 - 1Q2020	ND(2500) UJ	--	2100 J	3500 J	16000 J-	--	ND(600) UJ	--	--	985000
		09/17/20	ND(6)	11000	0.76	16000	1200	--	ND(8)	ND(50)	1900	ND(1)
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-38	4Q2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/05/20	ND(2500)	--	420000	ND(400) UJ	1700	--	ND(2500)	--	--	--
		09/19/20	ND(2500) R	--	450000	120	ND(50)	--	ND(600)	--	--	--
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-39	11/05/19	--	ND(2500)	1200	16000	480	ND(2500)	--	--	--	--
		02/05/20	ND(2500)	--	1300 J	1400	570 J+	--	ND(2500)	--	--	--
		09/19/20	ND(2500) R	--	2600	11000	660	--	ND(600)	--	--	--
		12/16/20	--	--	32600	6820	--	--	--	ND(146)	--	--
	MKTF-40	10/22/19	--	ND(2500)	540000	ND(400)	ND(50)	ND(2500)	--	--	--	--
		11/19/19	--	--	--	--	--	--	--	--	--	--
		02/28/20	ND(2500)	--	530000	ND(400)	ND(50)	--	ND(2500)	--	--	--
		09/19/20	ND(2500) R	--	450000	180	ND(50)	--	ND(600)	--	--	--
		12/17/20	--	--	428000	223	--	--	--	ND(146)	--	--
	MKTF-41	10/23/19	--	ND(2500)	58000	ND(400)	ND(50)	ND(2500)	--	--	--	--
		02/27/20	ND(2500)	--	61000	350 J	28 J	--	ND(2500)	--	--	--
		09/21/20	ND(2500)	--	60000	520 J+	22 J	--	ND(600)	--	--	--
		12/15/20	--	--	59500	3400	--	--	--	ND(129)	--	--
	MKTF-42	10/23/19	--	ND(2500)	83000	8600	140	ND(2500)	--	--	--	--
		02/27/20	ND(2500)	--	84000	35000	700	--	ND(2500)	--	--	--
		09/21/20	ND(2500)	--	100000	26000 J+	410	--	ND(6000)	--	--	--
		12/16/20	--	--	114000	42500	--	--	--	2240 J	--	--
	MKTF-43	10/24/19	--	ND(2500)	540000	ND(400)	ND(50)	ND(2500)	--	--	--	--
		02/27/20	ND(2500)	--	640000	ND(400)	10 J	--	ND(2500)	--	--	--
		09/21/20	ND(2500)	--	790000	72 J+	ND(50)	--	ND(600)	--	--	14500000
		12/15/20	--	--	782000	276	--	--	--	ND(157)	ND(100)	--
	MKTF-44	10/24/19	--	ND(2500)	91000	ND(400)	ND(50)	ND(2500)	--	--	--	--
		03/05/20	ND(2500)	--	100000	ND(400) UJ	ND(50)	--	ND(2500)	--	--	--
		09/21/20	ND(2500)	--	96000	ND(70)	ND(50)	--	ND(600)	--	--	2280000
		12/23/20	--	--	104000	171	--	--	--	ND(156)	ND(100)	--
	MKTF-45	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-46	03/06/20	ND(2500)	--	250000	ND(400)	ND(50)	--	ND(2500)	--	--	--
		09/17/20	ND(2500) UJ	--	250000 J	ND(70) UJ	ND(50) UJ	--	ND(600) UJ	--	--	--
		12/16/20	--	--	292000	ND(152)	--	--	--	ND(152)	ND(100)	--
	MKTF-47	03/06/20	ND(2500)	--	320000	ND(400)	ND(50)	--	ND(2500)	--	--	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-48	2Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-49	03/05/20	ND(2500)	--	ND(2500)	1100 J+	77000	--	ND(2500)	--	--	--
		09/20/20	ND(2500)	--	ND(2500)	760 J-	97000	--	ND(600) UJ	--	--	2870000
		12/23/20	--	--	ND(1000)	5750	--	--	--	ND(147)	84600	--
	MKTF-50	03/05/20	ND(2500)	--	ND(2500)	2900 J+	22000	--	ND(2500)	--	--	--
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	--	--	11500 JB	7410	--	--	--	327	17000	--
Wastewater Treatment Plant	KA-3	10/21/19	--	ND(2500)	12000	ND(400)	200	ND(2500)	--	--	--	--
		03/04/20	ND(2500)	--	8900	ND(400)	350	--	ND(2500)	--	--	--
		09/22/20	ND(2500)	--	4100	760	850	--	ND(600)	--	--	--
		12/17/20	--	--	74500	1140	--	--	--	ND(139)	107 J-	--
	LDU - East	11/19/19	--	--	--	1100	5200	ND(2500)	--	--	--	--
		03/10/20	--	--	--	1900	2300	--	ND(2500)	--	--	--
		3Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
		12/17/20	--	--	--	5240	--	--	--	ND(148)	1490	--
	LDU - West	11/19/19	--	--	--	2300	130	ND(2500)	--	--	--	--
		03/10/20	--	--	--	3000	910	--	ND(2500)	--	--	--
		3Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
		12/17/20	--	--	--	2860	--	--	--	ND(140)	444	--
	NAPIS-1	4Q2019 - 3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	NAPIS-2	10/21/19	--	ND(2500)	1400	180	990	ND(2500)	--	--	--	--
		03/04/20	ND(2500)	--	2400 J	560	1100	--	ND(2500)	--	--	--
		09/22/20	ND(2500)	--	16000	1700	1400	--	ND(600)	--	--	--
		12/17/20	--	--	3970	3130	--	--	--	408	712 J-	--
	NAPIS-3	10/21/19	--	ND(2500)	200000	ND(400)	ND(50)	ND(2500)	--	--	--	--
		03/04/20	ND(2500)	--	150000	ND(400)	110	--	ND(2500)	--	--	--
		09/22/20	ND(2500)	--	63000	380	110	--	ND(600)	--	--	--
		12/17/20	--	--	7480	1560	--	--	--	154	221 J-	--
	Selected Screening Level		NA	NA	600,000	16.7	10.1	85.8	85.8	NA	NA	NA

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Total Suspended Solids (ug/L)	Soluble Salt (ug/L)	Coliform, E-Coli (MPN/100ml)	E-Coli (MPN/100ml)	pH (Std Units)	Resistivity (Mohm/cm)	Temperature (oC)
Marketing Tank Farm	MKTF-35	10/29/19	--	--	--	--	--	--	--
		02/06/20	--	--	--	--	--	--	--
		09/16/20	--	--	--	--	7.3 J	--	--
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-36	4Q2019 - 1Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		09/18/20	74000	--	--	--	7.16 J	--	--
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-37	4Q2019 - 1Q2020	120000	--	--	--	7.47 J	--	--
		09/17/20	ND(25)	280000	*ND(0.5)*	2.1	15	--	--
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-38	4Q2019	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		03/05/20	--	--	--	--	--	--	--
		09/19/20	--	--	--	--	--	--	--
		4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-39	11/05/19	--	--	--	--	--	--	--
		02/05/20	--	--	--	--	--	--	--
		09/19/20	--	--	--	--	--	--	--
		12/16/20	--	--	--	--	--	--	--
	MKTF-40	10/22/19	--	--	--	--	--	--	--
		11/19/19	--	--	--	--	--	--	--
		02/28/20	--	--	--	--	--	--	--
		09/19/20	--	--	--	--	--	--	--
		12/17/20	--	--	--	--	--	--	--
	MKTF-41	10/23/19	--	--	--	--	--	--	--
		02/27/20	--	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--	--
		12/15/20	--	--	--	--	--	--	--
	MKTF-42	10/23/19	--	--	--	--	--	--	--
		02/27/20	--	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--	--
		12/16/20	--	--	--	--	--	--	--
	MKTF-43	10/24/19	--	--	--	--	--	--	--
		02/27/20	--	--	--	--	--	--	--
		09/21/20	9000	--	--	--	--	--	--
		12/15/20	--	--	--	--	--	--	--
	MKTF-44	10/24/19	--	--	--	--	--	--	--
		03/05/20	--	--	--	--	--	--	--
		09/21/20	89000	--	--	--	--	--	--
		12/23/20	--	--	--	--	--	--	--
	MKTF-45	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-46	03/06/20	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--
		12/16/20	--	--	--	--	--	--	--
	MKTF-47	03/06/20	--	--	--	--	--	--	--
		3Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-48	2Q2020 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	MKTF-49	03/05/20	--	--	--	--	--	--	--
		09/20/20	540000	--	--	--	--	--	--
		12/23/20	--	--	--	--	--	--	--
	MKTF-50	03/05/20	--	--	--	--	--	--	--
		3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
		12/16/20	--	--	--	--	--	--	--
Wastewater Treatment Plant	KA-3	10/21/19	--	--	--	--	--	--	--
		03/04/20	--	--	--	--	--	--	--
		09/22/20	--	--	--	--	--	--	--
		12/17/20	--	--	--	--	--	--	--
	LDU - East	11/19/19	--	--	--	--	--	--	--
		03/10/20	--	--	--	--	--	--	--
		3Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
		12/17/20	--	--	--	--	--	--	--
	LDU - West	11/19/19	--	--	--	--	--	--	--
		03/10/20	--	--	--	--	--	--	--
		3Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
		12/17/20	--	--	--	--	--	--	--
	NAPIS-1	4Q2019 - 3Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	NAPIS-2	10/21/19	--	--	--	--	--	--	--
		03/04/20	--	--	--	--	--	--	--
		09/22/20	--	--	--	--	--	--	--
		12/17/20	--	--	--	--	--	--	--
	NAPIS-3	10/21/19	--	--	--	--	--	--	--
		03/04/20	--	--	--	--	--	--	--
		09/22/20	--	--	--	--	--	--	--
		12/17/20	--	--	--	--	--	--	--
	Selected Screening Level		NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Biochemical Oxygen Demand (ug/L)	Bromide (ug/L)	Chemical Oxygen Demand (ug/L)	Chloride (ug/L)	Conductivity (umhos/cm)	Fluoride, Total (ug/L)	Nitrate & Nitrite (ug/L)	Nitrogen, Nitrate (ug/L)	Nitrogen, Nitrate & Nitrite (ug/L)	Nitrogen, Nitrite (ug/L)
Wastewater Treatment Plant	OAPIS-1	10/21/19	--	3700	--	1400000	--	1600	--	ND(500)	--	ND(500)
		11/19/19	5700	--	482000	--	--	--	--	ND(500)	--	ND(500)
		03/04/20	--	4200	--	1700000	--	1700	--	ND(500)	--	ND(500)
		09/22/20	--	4300	--	1400000	--	1200	--	210 J	--	ND(500)
		12/17/20	--	--	--	1420000	--	1970 J+	--	ND(100) UJ	--	--
	STP1-NW	10/22/19	--	3700	--	2300000	--	ND(500)	--	27000	--	ND(2000)
		03/04/20	--	--	--	--	--	--	--	--	--	--
		9/15/2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
		12/23/20	--	--	--	2440000	--	ND(1000)	--	27600 J	--	--
	STP1-SW	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
	Oil Sump LDU	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	GWM-2	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	GWM-3	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-59	10/15/19	--	2100	--	2000000	--	ND(500)	--	--	ND(2000)	--
		03/03/20	--	2700	--	2200000	--	ND(500)	--	ND(500)	--	ND(2000)
		09/19/20	--	3100	--	2000000	--	ND(500)	--	ND(500)	--	ND(2000)
		12/23/20	--	--	--	2270000	--	ND(1000)	--	ND(100)	--	--
	OW-60	10/15/19	--	4600	--	1600000	--	ND(500)	--	--	17000	--
		03/03/20	--	4600	--	1800000	--	ND(500)	--	18000	--	ND(2000)
		09/21/20	--	4600	--	1500000	--	ND(500)	--	18000	--	ND(500)
		12/11/20	--	--	--	--	--	--	--	--	--	--
		12/15/20	--	--	--	1740000	--	ND(1000)	--	19300 J	--	--
Land Treatment Unit	MW-1	09/20/17	--	290	--	48000	--	610	ND(1000)	--	--	--
		09/13/18	--	ND(500)	--	48000	--	800	--	49	--	ND(500)
		12/06/18	--	--	--	--	--	--	--	--	--	--
		08/12/19	--	ND(500)	--	47000	--	730	--	ND(500)	--	ND(500)
		09/22/20	--	ND(500)	--	48000	--	630	--	ND(500)	--	ND(500)
	MW-2	09/20/17	--	280	--	56000	--	630	ND(1000)	--	--	--
		09/13/18	--	150	--	56000	--	870	--	ND(500)	--	ND(500)
		12/06/18	--	--	--	--	--	--	--	--	--	--
		08/13/19	--	ND(500)	--	54000	--	740	--	ND(500)	--	ND(500)
		09/18/20	--	ND(500)	--	55000	--	840	ND(1000)	--	--	--
	MW-4	09/21/17	--	250	--	16000	--	ND(500)	ND(1000)	--	--	--
		09/13/18	--	ND(500)	--	16000	--	420	--	ND(500)	--	ND(500)
		12/06/18	--	--	--	--	--	--	--	--	--	--
		08/13/19	--	ND(500)	--	16000	--	340	--	--	ND(1000)	--
		09/18/20	--	ND(500) UJ	--	16000 J	--	300 J	--	ND(500) UJ	--	ND(500) UJ
	MW-5	09/11/17	--	210	--	60000	--	680	ND(1000)	--	--	--
		09/17/18	--	ND(500)	--	63000	--	700	--	ND(500)	--	ND(500)
		12/06/18	--	--	--	--	--	--	--	--	--	--
		08/14/19	--	ND(500)	--	60000	--	770	--	ND(500)	--	ND(500)
		09/21/20	--	86 J	--	54000	--	600	--	ND(100)	--	ND(100)
	SMW-2	06/28/17	--	2800	--	2600000	--	ND(500)	ND(2000)	--	--	--
		09/11/17	--	2500	--	2900000	--	ND(500)	ND(2000)	--	--	--
		09/18/18	--	2300	--	2900000	--	ND(500)	--	ND(500)	--	ND(2000)
		08/22/19	--	2800	--	2900000	--	93	--	ND(500)	--	3300
		09/19/20	--	2800	--	2700000	--	ND(500)	--	ND(500)	--	ND(2000)
	SMW-4	06/28/17	--	260	--	63000	--	1100	210	--	--	--
		09/11/17	--	150	--	56000	--	960	350	--	--	--
		09/12/18	--	210	--	59000	--	970	--	120	--	ND(500)
		12/06/18	--	--	--	--	--	--	--	--	--	--
		08/13/19	--	ND(500)	--	59000	--	1000	--	110	--	ND(500)
		09/20/20	--	120	--	50000	--	770	--	34 J	--	ND(100)
Evaporation Ponds	EP-2	09/06/18	--	1200	--	1700000	--	25000	ND(2000)	--	--	--
		09/14/18	180	--	370	--	--	--	--	--	--	--
		04/30/19	520	550	738	1700000	7100	38000	--	ND(500)	--	ND(500)
		11/21/19	1600	ND(500)	2290	510000	13000	ND(500)	--	ND(500)	--	ND(500)
		09/16/20	240	1900	379	3400000	--	51000	--	ND(500)	--	ND(2000)
		09/17/20	--	ND(500) UJ	--	1400 J	--	ND(500) UJ	--	340 J	--	ND(500) UJ
		12/21/20	39.8	ND(100000)	644	3250000	--	ND(100000)	--	280 J	280	ND(100) UJ
	EP-3	09/06/18	--	1000	--	1900000	--	31000	ND(2000)	--	--	--
		09/14/18	120	--	340	--	--	--	--	--	--	--
		04/30/19	160	540	683	2200000	8200	34000	--	ND(500)	--	ND(2000)
		11/20/19	300	2300	731	770000	8200	37000	--	220	--	ND(2000)
		09/16/20	191	1500	417	3500000	--	41000	--	ND(500)	--	ND(2000)
		12/21/20	47.1	ND(500000)	376	7190000	--	ND(500000)	--	98 J	98	ND(100) UJ
	Selected Screening Level		NA	NA	NA	250,000	NA	1,600	NA	10,000	10,000	1,000

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Orthophosphate (ug/L)	Orthophosphorus (ug/L)	Sulfate (ug/L)	Diesel Range Organics (ug/L)	Gasoline Range Organics (ug/L)	Motor Oil (ug/L)	Oil Range Organics (ug/L)	C28-C40 (ug/L)	TPH (C6-C10) (ug/L)	Total Dissolved Solids (ug/L)
Wastewater Treatment Plant	OAPIS-1	10/21/19	--	ND(2500)	4400	1400	850	ND(2500)	--	--	--	--
		11/19/19	--	--	--	--	--	--	--	--	--	--
		03/04/20	ND(2500)	--	12000	--	--	--	--	--	--	--
		09/22/20	ND(2500)	--	9800	5800	400	--	1500	--	--	--
		12/17/20	--	--	10700	24700	--	--	--	6410	460	--
	STP1-NW	10/22/19	--	ND(2500)	170000	ND(400)	ND(50)	ND(2500)	--	--	--	--
		03/04/20	--	--	--	ND(400)	ND(50)	--	ND(2500)	--	--	--
		9/15/2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
		12/23/20	--	--	155000	594	--	--	--	ND(139)	ND(100)	--
	STP1-SW	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
	Oil Sump LDU	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	GWM-2	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	GWM-3	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-59	10/15/19	--	ND(2500)	2400000	580	2300	ND(5000)	--	--	--	--
		03/03/20	ND(2500)	--	2600000	ND(400)	2800	--	ND(2500)	--	--	--
		09/19/20	ND(2500)	--	2100000	210 J-	2300	--	ND(600) UJ	--	--	--
		12/23/20	--	--	2510000	811 J-	--	--	--	ND(140) R	995	--
	OW-60	10/15/19	--	ND(2500)	600000	ND(1000)	ND(50)	ND(5000)	--	--	--	--
		03/03/20	ND(2500)	--	780000	ND(400)	ND(50)	--	ND(2500)	--	--	--
		09/21/20	ND(2500)	--	630000	ND(70)	ND(50)	--	ND(600)	--	--	--
		12/11/20	--	--	--	ND(143)	--	--	--	ND(143)	ND(100)	--
		12/15/20	--	--	647000	--	--	--	--	--	--	--
Land Treatment Unit	MW-1	09/20/17	ND(2500)	--	170000	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		09/13/18	ND(2500)	--	160000	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		12/06/18	--	--	--	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		08/12/19	--	ND(2500)	170000	ND(1000)	ND(50)	ND(5000)	--	--	--	--
		09/22/20	ND(2500)	--	160000	ND(70)	ND(50)	--	ND(600)	--	--	--
	MW-2	09/20/17	ND(2500)	--	170000	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		09/13/18	ND(2500)	--	170000	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		12/06/18	--	--	--	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		08/13/19	--	ND(2500)	170000	ND(1000)	ND(50)	ND(5000)	--	--	--	--
		09/18/20	ND(2500) UJ	--	170000	ND(70)	ND(50)	--	ND(600)	--	--	--
	MW-4	09/21/17	ND(2500)	--	160000	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		09/13/18	ND(2500)	--	150000	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		12/06/18	--	--	--	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		08/13/19	--	ND(2500)	160000	ND(1000)	ND(50)	ND(5000)	--	--	--	--
		09/18/20	ND(2500) UJ	--	160000 J	ND(70) UJ	ND(50) UJ	--	ND(600) UJ	--	--	--
	MW-5	09/11/17	ND(2500)	--	170000	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		09/17/18	ND(2500)	--	170000	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		12/06/18	--	--	--	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		08/14/19	--	ND(2500)	180000	ND(1000)	ND(50)	ND(5000)	--	--	--	--
		09/21/20	ND(500)	--	150000	ND(70) UJ	ND(50)	--	ND(600)	--	--	--
	SMW-2	06/28/17	ND(10000)	--	1500000	--	--	--	--	--	--	--
		09/11/17	ND(2500)	--	1400000	410	230	--	ND(5000)	--	--	--
		09/18/18	ND(2500)	--	1500000	ND(1000)	250	--	ND(5000)	--	--	--
		08/22/19	--	ND(2500)	1400000	1100	210	ND(5000)	--	--	--	--
		09/19/20	ND(2500)	--	1200000	100 J-	570	--	ND(600) UJ	--	--	--
	SMW-4	06/28/17	ND(2500)	--	180000	--	--	--	--	--	--	--
		09/11/17	ND(2500)	--	160000	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		09/12/18	ND(2500)	--	160000	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		12/06/18	--	--	--	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		08/13/19	--	ND(2500)	170000	ND(1000)	ND(50)	ND(5000)	--	--	--	--
		09/20/20	ND(500)	--	140000	ND(70) UJ	ND(50)	--	ND(600) UJ	--	--	--
Evaporation Ponds	EP-2	09/06/18	ND(2500)	--	800000	--	--	--	--	--	--	--
		09/14/18	--	--	--	--	--	--	--	--	--	5190
		04/30/19	--	ND(2500)	1200000	--	--	--	--	--	--	4410
		11/21/19	--	ND(2500)	1700000	--	--	--	--	--	--	--
		09/16/20	ND(2500)	--	350000	--	--	--	--	--	--	--
		09/17/20	ND(2500) UJ	--	ND(2500) UJ	--	--	--	--	--	--	--
		12/21/20	--	103 J-	656000	--	--	--	--	--	--	6220
	EP-3	09/06/18	ND(2500)	--	890000	--	--	--	--	--	--	--
		09/14/18	--	--	--	--	--	--	--	--	--	5770
		04/30/19	--	ND(2500)	1500000	--	--	--	--	--	--	5300
		11/20/19	--	ND(10000)	1500000	--	--	--	--	--	--	--
		09/16/20	ND(2500)	--	460000	--	--	--	--	--	--	--
		12/21/20	--	97 J-	1740000	--	--	--	--	--	--	13900
	Selected Screening Level		NA	NA	600,000	16.7	10.1	85.8	85.8	NA	NA	NA

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Total Suspended Solids (ug/L)	Soluble Salt (ug/L)	Coliform, E-Coli (MPN/100ml)	E-Coli (MPN/100ml)	pH (Std Units)	Resistivity (Mohm/cm)	Temperature (oC)
Wastewater Treatment Plant	OAPIS-1	10/21/19	--	--	--	--	--	--	--
		11/19/19	--	--	--	--	--	--	--
		03/04/20	--	--	--	--	--	--	--
		09/22/20	--	--	--	--	--	--	--
		12/17/20	--	--	--	--	--	--	--
	STP1-NW	10/22/19	--	--	--	--	--	--	--
		03/04/20	--	--	--	--	--	--	--
		9/15/2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
		12/23/20	--	--	--	--	--	--	--
	STP1-SW	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
	Oil Sump LDU	4Q2019 - 4Q2020	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S	NS - H2S
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH	NS - SPH
	GWM-2	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	GWM-3	4Q2019 - 4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	OW-59	10/15/19	--	--	--	--	--	--	--
		03/03/20	--	--	--	--	--	--	--
		09/19/20	--	--	--	--	--	--	--
		12/23/20	--	--	--	--	--	--	--
	OW-60	10/15/19	--	--	--	--	--	--	--
		03/03/20	--	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--	--
		12/11/20	--	--	--	--	--	--	--
		12/15/20	--	--	--	--	--	--	--
Land Treatment Unit	MW-1	09/20/17	--	--	--	--	--	--	--
		09/13/18	--	--	--	--	--	--	--
		12/06/18	--	--	--	--	--	--	--
		08/12/19	--	--	--	--	--	--	--
		09/22/20	--	--	--	--	--	--	--
	MW-2	09/20/17	--	--	--	--	--	--	--
		09/13/18	--	--	--	--	--	--	--
		12/06/18	--	--	--	--	--	--	--
		08/13/19	--	--	--	--	--	--	--
		09/18/20	--	--	--	--	--	--	--
	MW-4	09/21/17	--	--	--	--	--	--	--
		09/13/18	--	--	--	--	--	--	--
		12/06/18	--	--	--	--	--	--	--
		08/13/19	--	--	--	--	--	--	--
		09/18/20	--	--	--	--	--	--	--
	MW-5	09/11/17	--	--	--	--	--	--	--
		09/17/18	--	--	--	--	--	--	--
		12/06/18	--	--	--	--	--	--	--
		08/14/19	--	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--	--
	SMW-2	06/28/17	--	--	--	--	--	--	--
		09/11/17	--	--	--	--	--	--	--
		09/18/18	--	--	--	--	--	--	--
		08/22/19	--	--	--	--	--	--	--
		09/19/20	--	--	--	--	--	--	--
	SMW-4	06/28/17	--	--	--	--	--	--	--
		09/11/17	--	--	--	--	--	--	--
		09/12/18	--	--	--	--	--	--	--
		12/06/18	--	--	--	--	--	--	--
		08/13/19	--	--	--	--	--	--	--
		09/20/20	--	--	--	--	--	--	--
Evaporation Ponds	EP-2	09/06/18	--	--	--	--	--	--	--
		09/14/18	--	--	--	12997	--	--	--
		04/30/19	--	--	--	24200	8.03	--	--
		11/21/19	--	--	--	24200	7.99	--	--
		09/16/20	--	--	10462	--	8.15 J	--	--
		09/17/20	--	--	--	--	6.59 J	--	--
		12/21/20	--	7130	--	--	--	0.0000898	19.7 J
	EP-3	09/06/18	--	--	--	--	--	--	--
		09/14/18	--	--	--	1354	--	--	--
		04/30/19	--	--	--	19860	7.58	--	--
		11/20/19	--	--	--	24200	7.71	--	--
		09/16/20	--	--	5794	--	7.78 J	--	--
		12/21/20	--	14500	--	--	--	0.0000441	19.6 J
	Selected Screening Level		NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Biochemical Oxygen Demand (ug/L)	Bromide (ug/L)	Chemical Oxygen Demand (ug/L)	Chloride (ug/L)	Conductivity (umhos/cm)	Fluoride, Total (ug/L)	Nitrate & Nitrite (ug/L)	Nitrogen, Nitrate (ug/L)	Nitrogen, Nitrate & Nitrite (ug/L)	Nitrogen, Nitrite (ug/L)
Evaporation Ponds	EP-4	09/06/18	--	1300	--	2700000	--	28000	ND(2000)	--	--	--
		09/14/18	85	--	320	--	--	--	--	--	--	--
		09/14/18	--	--	--	--	--	--	--	--	--	--
		04/30/19	260	770	800	3100000	10000	32000	--	ND(500)	--	ND(2000)
		09/17/20	--	6100	298	8800000	--	18000	--	ND(500)	--	ND(2000)
		09/18/20	--	--	--	--	--	--	--	--	--	--
		09/29/20	93 J-	--	--	--	--	--	--	--	--	--
		12/21/20	40	ND(500000)	336	9130000	--	ND(500000)	--	ND(50) UJ	ND(50)	ND(100) UJ
	EP-5	09/06/18	--	2800	--	5800000	--	30000	ND(4000)	--	--	--
		09/14/18	23	--	930	--	--	--	--	--	--	--
		04/30/19	97	1000	618	3900000	18000	31000	--	ND(500)	--	ND(2000)
		09/17/20	--	4800	310	6900000	--	62000	--	ND(500)	--	ND(2000)
		09/18/20	--	--	--	--	--	--	--	--	--	--
		09/29/20	38 J-	--	--	--	--	--	--	--	--	--
		12/21/20	12.4	ND(500000)	217	8970000	--	ND(500000)	--	ND(50) UJ	ND(50)	ND(100) UJ
	EP-6	09/07/18	--	3300	--	6300000	--	33000	ND(10000)	--	--	--
		09/14/18	14	--	550	--	--	--	--	--	--	--
		04/29/19	54	1500	393	4100000	17000	33000	--	ND(500)	--	2600
		09/17/20	--	4400	440	6600000	--	57000	--	ND(500)	--	ND(2000)
		09/18/20	--	--	--	--	--	--	--	--	--	--
		09/29/20	39 J-	--	--	--	--	--	--	--	--	--
		12/21/20	2.35	ND(500000)	222	10400000	--	ND(500000)	--	ND(50) UJ	ND(50)	ND(100) UJ
	EP-7	09/07/18	--	43000	--	70000000	--	45000	ND(100000)	--	--	--
		09/14/18	46	--	4700	--	--	--	--	--	--	--
		04/29/19	15	25000	2370	88000000	180000	25000	--	ND(2000)	--	52000
		11/20/19	15	71000	5040	210000000	510000	81000	--	--	ND(400000)	--
		09/17/20	--	98000	356	160000000	--	93000	ND(100000)	--	--	--
		09/18/20	--	--	--	--	--	--	--	--	--	--
		09/29/20	31 J-	--	--	--	--	--	--	--	--	--
		12/21/20	14.7	ND(500000)	2410	171000000	--	ND(500000)	--	ND(50) UJ	ND(50)	ND(100) UJ
	EP-8	09/07/18	--	23000	--	37000000	--	36000	ND(40000)	--	--	--
		09/14/18	17	--	2300	--	--	--	--	--	--	--
		04/29/19	20	26000	1850	62000000	180000	26000	--	ND(2000)	--	53000
		11/20/19	28	60000	5170	160000000	460000	65000	--	--	ND(400000)	--
		09/17/20	--	82000	415	130000000	--	89000	ND(100000)	--	--	--
		09/18/20	--	--	--	--	--	--	--	--	--	--
		09/29/20	25 J-	--	--	--	--	--	--	--	--	--
		12/22/20	23.8	ND(500000)	3060	201000000	--	ND(500000)	--	68 J	68 J-	ND(100) UJ
	EP-9	09/07/18	--	20000	--	42000000	--	42000	ND(40000)	--	--	--
		09/14/18	30	--	2200	--	--	--	--	--	--	--
		04/29/19	90	12000	1630	55000000	140000	25000	--	ND(2000)	--	39000
		11/20/19	15	17000	2230	57000000	200000	24000	--	ND(2000)	--	ND(20000)
		09/17/20	--	71000	428	150000000	--	41000	ND(100000)	--	--	--
		09/18/20	--	--	--	--	--	--	--	--	--	--
		09/29/20	15 J-	--	--	--	--	--	--	--	--	--
		12/21/20	11.4	ND(500000)	2220	183000000	--	ND(500000)	--	ND(50) UJ	ND(50)	ND(100) UJ
	EP-11	09/07/18	--	280000	--	170000000	--	41000	ND(200000)	--	--	--
		09/14/18	>199.62	--	14000	--	--	--	--	--	--	--
		04/29/19	17	24000	2160	76000000	190000	24000	--	ND(2000)	--	52000
		12/22/20	45.3	ND(500000)	3430	16800000	--	ND(500000)	--	97 J	97 J-	ND(100) UJ
	EP-12A	09/07/18	--	14000	--	30000000	--	27000	ND(20000)	--	--	--
		11/21/19	120	ND(500)	237	1700000	12000	32000	--	ND(500)	--	ND(500)
		12/22/20	49	ND(500000)	528	198000000	--	ND(500000)	--	35600 J	35600 J-	ND(100) UJ
	EP-12B	09/07/18	--	2200	--	3800000	--	36000	ND(20000)	--	--	--
		09/14/18	<35.2	--	600	--	--	--	--	--	--	--
		04/29/19	38	3300	839	7200000	29000	28000	--	ND(500)	--	5500
		11/21/19	290	ND(500)	448	980000	8500	31000	--	ND(500)	--	ND(500)
		09/18/20	71 J-	3200 J	445 J	8400000 J	--	15000 J	ND(10000) UJ	--	--	--
		09/18/20	--	--	--	--	--	--	--	--	--	--
		12/22/20	46.4	ND(500000)	484	10700000	--	ND(500000)	--	215 J	215 J-	ND(100) UJ
	STP-1 to EP-2	08/31/18	1500	--	1900	--	--	--	--	--	--	--
		11/08/18	>2697.6	--	8080	--	--	--	--	--	--	--
		02/07/19	150	--	495	--	--	--	--	--	--	--
		05/29/19	1100	--	1590	--	--	--	--	--	--	--
		10/09/19	120	--	299	--	--	--	--	--	--	--
		11/21/19	1600	--	2420	--	--	--	--	--	--	--
		09/16/20	357	--	882	--	--	--	--	--	--	--
		12/21/20	40.2	--	697	--	--	--	--	--	--	--
Western Boundary	BW-1A	3Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-1B	3Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-1C	09/13/17	--	150	--	32000	--	2100	--	ND(500)	--	ND(500)
		09/12/18	--	160	--	33000	--	2400	ND(1000)	--	--	--
		08/14/19	--	150	--	33000	--	2200	--	ND(500)	--	66
		09/20/20	--	ND(500)	--	34000	--	2500	--	ND(500)	--	ND(500)
	BW-2A	09/13/17	--	440	--	36000	--	990	--	ND(500)	--	ND(500)
		09/12/18	--	430	--	38000	--	1000	ND(1000)	--	--	--
		08/14/19	--	460	--	38000	--	1100	--	ND(500)	--	ND(500)
		09/20/20	--	500 J	--	39000	--	1200	--	100J/ND(500)U*	--	ND(500)
	Selected Screening Level		NA	NA	NA	250,000	NA	1,600	NA	10,000	10,000	1,000

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Orthophosphate (ug/L)	Orthophosphorus (ug/L)	Sulfate (ug/L)	Diesel Range Organics (ug/L)	Gasoline Range Organics (ug/L)	Motor Oil (ug/L)	Oil Range Organics (ug/L)	C28-C40 (ug/L)	TPH (C6-C10) (ug/L)	Total Dissolved Solids (ug/L)
	EP-4	09/06/18	ND(2500)	--	1000000	--	--	--	--	--	--	--
		09/14/18	--	--	--	--	--	--	--	--	--	--
		09/14/18	--	--	--	--	--	--	--	--	--	6360
		04/30/19	--	ND(2500)	1500000	--	--	--	--	--	--	7170
		09/17/20	ND(2500)	--	4000000	--	--	--	--	--	--	22800
		09/18/20	--	--	--	--	--	--	--	--	--	--
		09/29/20	--	--	--	--	--	--	--	--	--	--
		12/21/20	--	ND(50) UJ	2890000	--	--	--	--	--	--	17900
	EP-5	09/06/18	ND(2500)	--	1500000	--	--	--	--	--	--	--
		09/14/18	--	--	--	--	--	--	--	--	--	12000
		04/30/19	--	ND(2500)	1500000	--	--	--	--	--	--	8660
		09/17/20	ND(2500)	--	3400000	--	--	--	--	--	--	17900
		09/18/20	--	--	--	--	--	--	--	--	--	--
		09/29/20	--	--	--	--	--	--	--	--	--	--
		12/21/20	--	253 J-	3570000	--	--	--	--	--	--	19000
	EP-6	09/07/18	ND(2500)	--	1600000	--	--	--	--	--	--	--
		09/14/18	--	--	--	--	--	--	--	--	--	14600
		04/29/19	--	ND(2500)	1400000	--	--	--	--	--	--	8510
		09/17/20	ND(2500)	--	3200000	--	--	--	--	--	--	18300
		09/18/20	--	--	--	--	--	--	--	--	--	--
		09/29/20	--	--	--	--	--	--	--	--	--	--
		12/21/20	--	ND(50) UJ	3960000	--	--	--	--	--	--	18900
	EP-7	09/07/18	ND(10000)	--	12000000	--	--	--	--	--	--	--
		09/14/18	--	--	--	--	--	--	--	--	--	187000
		04/29/19	--	ND(10000)	14000000	--	--	--	--	--	--	100000
		11/20/19	--	ND(100000)	21000000	--	--	--	--	--	--	--
		09/17/20	ND(10000)	--	25000000	--	--	--	--	--	--	331000
		09/18/20	--	--	--	--	--	--	--	--	--	--
		09/29/20	--	--	--	--	--	--	--	--	--	--
		12/21/20	--	ND(50) UJ	14000000	--	--	--	--	--	--	283000 J
	EP-8	09/07/18	ND(10000)	--	6600000	--	--	--	--	--	--	--
		09/14/18	--	--	--	--	--	--	--	--	--	120000
		04/29/19	--	ND(10000)	10000000	--	--	--	--	--	--	101000
Evaporation		11/20/19	--	ND(100000)	14000000	--	--	--	--	--	--	--
Ponds		09/17/20	ND(10000)	--	21000000	--	--	--	--	--	--	276000
		09/18/20	--	--	--	--	--	--	--	--	--	--
		09/29/20	--	--	--	--	--	--	--	--	--	--
		12/22/20	--	ND(50)	12400000	--	--	--	--	--	--	309000 J
	EP-9	09/07/18	ND(10000)	--	4600000	--	--	--	--	--	--	--
		09/14/18	--	--	--	--	--	--	--	--	--	96500
		04/29/19	--	ND(10000)	6100000	--	--	--	--	--	--	75900
		11/20/19	--	ND(10000)	6400000	--	--	--	--	--	--	--
		09/17/20	ND(10000)	--	12000000	--	--	--	--	--	--	302000
		09/18/20	--	--	--	--	--	--	--	--	--	--
		09/29/20	--	--	--	--	--	--	--	--	--	--
		12/21/20	--	ND(50) UJ	13100000	--	--	--	--	--	--	300000 J
	EP-11	09/07/18	8600	--	57000000	--	--	--	--	--	--	--
		09/14/18	--	--	--	--	--	--	--	--	--	442000
		04/29/19	--	ND(10000)	12000000	--	--	--	--	--	--	107000
		12/22/20	--	ND(50)	6130000	--	--	--	--	--	--	312000 J
	EP-12A	09/07/18	ND(10000)	--	7600000	--	--	--	--	--	--	--
		11/21/19	--	ND(2500)	2000000	--	--	--	--	--	--	--
		12/22/20	--	105	15300000	--	--	--	--	--	--	34400
	EP-12B	09/07/18	ND(2500)	--	1400000	--	--	--	--	--	--	--
		09/14/18	--	--	--	--	--	--	--	--	--	15900
		04/29/19	--	ND(2500)	2800000	--	--	--	--	--	--	16600
		11/21/19	--	ND(2500)	1700000	--	--	--	--	--	--	--
		09/18/20	ND(2500) R	--	4800000 J	--	--	--	--	--	--	22100
		09/18/20	--	--	--	--	--	--	--	--	--	--
		12/22/20	--	ND(50)	4140000	--	--	--	--	--	--	19700
	STP-1 to EP-2	08/31/18	--	--	--	2700	290	--	ND(5000)	--	--	2730
		11/08/18	--	--	--	14000	ND(250)	--	5400	--	--	3220
		02/07/19	--	--	--	1200	72	ND(5000)	--	--	--	3550
		05/29/19	--	--	--	2100	ND(1000)	ND(5000)	--	--	--	4350
		10/09/19	--	--	--	ND(1000)	ND(50)	ND(5000)	--	--	--	2630
		11/21/19	--	--	--	ND(400)	ND(500)	ND(2500)	--	--	--	3140
		09/16/20	--	--	--	630 J-	ND(500)	--	ND(600)	--	--	6110
		12/21/20	--	--	--	1970 J	--	--	--	1100 J	141	1930
	BW-1A	3Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-1B	3Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-1C	09/13/17	ND(2500)	--	230000	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		09/12/18	ND(2500)	--	230000	ND(1000)	ND(50)	--	ND(5000)	--	--	--
Western		08/14/19	--	ND(2500)	250000	ND(1000)	ND(50)	ND(5000)	--	--	--	--
Boundary		09/20/20	ND(2500)	--	260000	ND(70)	ND(50)	--	ND(600)	--	--	--
	BW-2A	09/13/17	ND(2500)	--	6400	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		09/12/18	710	--	7300	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		08/14/19	--	ND(2500)	6800	ND(1000)	ND(50)	ND(5000)	--	--	--	--
		09/20/20	ND(2500)	--	7700	ND(70) UJ	ND(50)	--	ND(600) UJ	--	--	--
	Selected Screening Level		NA	NA	600,000	16.7	10.1	85.8	85.8	NA	NA	NA

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Total Suspended Solids (ug/L)	Soluble Salt (ug/L)	Coliform, E-Coli (MPN/100ml)	E-Coli (MPN/100ml)	pH (Std Units)	Resistivity (Mohm/cm)	Temperature (oC)
Evaporation Ponds	EP-4	09/06/18	--	--	--	--	--	--	--
		09/14/18	--	--	--	71	--	--	--
		09/14/18	--	--	--	--	--	--	--
		04/30/19	--	--	--	24200	7.75	--	--
		09/17/20	--	--	--	--	7.73 J	--	--
		09/18/20	--	--	1607 J	--	--	--	--
		09/29/20	--	--	--	--	--	--	--
		12/21/20	--	18100	--	--	--	0.0000354	19.5 J
	EP-5	09/06/18	--	--	--	--	--	--	--
		09/14/18	--	--	--	10	--	--	--
		04/30/19	--	--	--	109	7.81	--	--
		09/17/20	--	--	--	--	7.97 J	--	--
		09/18/20	--	--	74 J	--	--	--	--
		09/29/20	--	--	--	--	--	--	--
		12/21/20	--	19000	--	--	--	0.0000336	19.6 J
	EP-6	09/07/18	--	--	--	--	--	--	--
		09/14/18	--	--	--	10	--	--	--
		04/29/19	--	--	--	20	8.01	--	--
		09/17/20	--	--	--	--	8.08 J	--	--
		09/18/20	--	--	171 J	--	--	--	--
		09/29/20	--	--	--	--	--	--	--
		12/21/20	--	18300	--	--	--	0.0000349	19.4 J
	EP-7	09/07/18	--	--	--	--	--	--	--
		09/14/18	--	--	--	ND(10)	--	--	--
		04/29/19	--	--	--	ND(10)	7.93	--	--
		11/20/19	--	--	--	ND(10)	7.64	--	--
		09/17/20	--	--	--	--	7.38 J	--	--
		09/18/20	--	--	ND(10) J	--	--	--	--
		09/29/20	--	--	--	--	--	--	--
		12/21/20	--	263000	--	--	--	ND(0.00004)	19.5 J
	EP-8	09/07/18	--	--	--	--	--	--	--
		09/14/18	--	--	--	ND(10)	--	--	--
		04/29/19	--	--	--	ND(10)	7.93	--	--
		11/20/19	--	--	--	ND(10)	7.58	--	--
		09/17/20	--	--	--	--	7.56 J	--	--
		09/18/20	--	--	ND(10) J	--	--	--	--
		09/29/20	--	--	--	--	--	--	--
		12/22/20	--	283000	--	--	--	ND(0.00004)	20.3 J
	EP-9	09/07/18	--	--	--	--	--	--	--
		09/14/18	--	--	--	ND(10)	--	--	--
		04/29/19	--	--	--	ND(10)	7.98	--	--
		11/20/19	--	--	--	ND(10)	7.68	--	--
		09/17/20	--	--	--	--	7.59 J	--	--
		09/18/20	--	--	ND(10) J	--	--	--	--
		09/29/20	--	--	--	--	--	--	--
		12/21/20	--	278000	--	--	--	ND(0.00004)	19.7 J
	EP-11	09/07/18	--	--	--	--	--	--	--
		09/14/18	--	--	--	ND(10)	--	--	--
		04/29/19	--	--	--	ND(10)	7.95	--	--
		12/22/20	--	282000	--	--	--	ND(0.00004)	20.3 J
	EP-12A	09/07/18	--	--	--	--	--	--	--
		11/21/19	--	--	--	15530	7.72	--	--
		12/22/20	--	32200	--	--	--	0.0000199	19.4 J
	EP-12B	09/07/18	--	--	--	--	--	--	--
		09/14/18	--	--	--	120	--	--	--
		04/29/19	--	--	--	ND(10)	8.63	--	--
		11/21/19	--	--	--	24200	7.64	--	--
		09/18/20	--	--	--	--	7.49 J	--	--
		09/18/20	--	--	471 J	--	--	--	--
		12/22/20	--	19300	--	--	--	0.0000332	19.4 J
	STP-1 to EP-2	08/31/18	--	--	--	--	--	--	--
		11/08/18	--	--	--	--	--	--	--
		02/07/19	--	--	--	--	--	--	--
		05/29/19	--	--	--	--	--	--	--
		10/09/19	--	--	--	--	--	--	--
		11/21/19	--	--	--	--	--	--	--
		09/16/20	--	--	--	--	--	--	--
		12/21/20	--	--	--	--	--	--	--
Western Boundary	BW-1A	3Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-1B	3Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-1C	09/13/17	--	--	--	--	--	--	--
		09/12/18	--	--	--	--	--	--	--
		08/14/19	--	--	--	--	--	--	--
		09/20/20	--	--	--	--	--	--	--
	BW-2A	09/13/17	--	--	--	--	--	--	--
		09/12/18	--	--	--	--	--	--	--
		08/14/19	--	--	--	--	--	--	--
		09/20/20	--	--	--	--	--	--	--
	Selected Screening Level		NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Biochemical Oxygen Demand (ug/L)	Bromide (ug/L)	Chemical Oxygen Demand (ug/L)	Chloride (ug/L)	Conductivity (umhos/cm)	Fluoride, Total (ug/L)	Nitrate & Nitrite (ug/L)	Nitrogen, Nitrate (ug/L)	Nitrogen, Nitrate & Nitrite (ug/L)	Nitrogen, Nitrite (ug/L)
Western Boundary	BW-2B	09/13/17	--	730	--	29000	--	1500	--	ND(500)	--	ND(500)
		09/12/18	--	740	--	31000	--	1700	--	ND(500)	--	ND(500)
		08/14/19	--	710	--	31000	--	1500	--	65	--	68
		09/21/20	--	620	--	29000	--	1600	--	630	--	ND(100)
	BW-2C	09/13/17	--	130	--	44000	--	1800	--	110	--	ND(500)
		09/18/18	--	140	--	48000	--	1700	400	--	--	--
		08/14/19	--	ND(500)	--	46000	--	1800	--	ND(500)	--	ND(500)
		09/22/20	--	ND(500)	--	47000	--	1700	--	ND(500)	--	ND(500)
	BW-3A	3Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-3B	09/13/17	--	440	--	29000	--	1400	--	ND(500)	--	ND(500)
		09/12/18	--	450	--	31000	--	1300	--	63	--	ND(500)
		08/14/19	--	410	--	31000	--	1400	--	ND(500)	--	ND(500)
		09/21/20	--	420 J	--	30000	--	1200	--	ND(500)	--	ND(500)
	BW-3C	09/13/17	--	420	--	36000	--	1200	ND(1000)	--	--	--
		09/18/18	--	180	--	38000	--	1300	--	61	--	ND(500)
		08/14/19	--	ND(500)	--	36000	--	1500	--	ND(500)	--	ND(500)
		09/22/20	--	ND(500)	--	37000	--	1200	--	ND(500)	--	ND(500)
	BW-4A	4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-4B	03/10/20	--	ND(500)	--	73000	--	730	--	ND(500)	--	ND(500)
		12/28/20	--	--	--	--	--	--	--	--	--	--
	BW-5A	4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-5B	10/16/19	--	570	--	460000	--	170	--	--	170	--
		03/05/20	--	680	--	580000	--	140 J	--	240 J	--	ND(500)
		09/20/20	--	760	--	560000	--	ND(500)	--	170J/ND(500)U*	--	ND(500)
		12/11/20	--	--	--	627000	--	ND(1000)	--	ND(100)	--	--
	BW-5C	10/16/19	--	1100	--	1400000	--	ND(500)	--	--	ND(1000)	--
		03/05/20	--	1300	--	1600000	--	ND(500)	--	ND(500)	--	ND(500)
		09/19/20	--	1400	--	1500000	--	ND(500)	99 J	--	--	--
		12/09/20	--	--	--	1800000	--	ND(1000)	--	ND(100)	--	--
	OW-01	10/16/19	--	ND(500)	--	100000	--	270	--	--	240	--
		03/09/20	--	390 J	--	110000	--	340 J	--	300 J	--	ND(500)
		09/20/20	--	ND(500)	--	130000	--	ND(500)	--	310J/ND(500)U*	--	ND(500)
		12/11/20	--	--	--	135000	--	ND(1000)	--	216 JB	--	--
	OW-10	10/17/19	--	1000	--	1100000	--	160	--	750	--	ND(500)
		03/04/20	--	1100	--	1500000	--	ND(500)	--	790	--	ND(500)
		09/20/20	--	640	--	620000	--	89 J	--	880	--	ND(2000)
		12/11/20	--	--	--	348000	--	ND(1000)	--	1130	--	--
	OW-11	09/18/17	--	420	--	97000	--	1700	1200	--	--	--
		09/18/18	--	280	--	90000	--	1800	--	890	--	ND(500)
		08/20/19	--	340	--	98000	--	2000	--	1600	--	ND(500)
		09/20/20	--	ND(100)	--	77000	--	2300	--	220	--	ND(100)
	OW-12	09/19/17	--	360	--	17000	--	520	--	110	--	ND(500)
		09/19/18	--	--	--	--	--	--	--	--	--	--
Deep		09/17/20	--	--	--	--	--	--	--	7700	--	ND(100)
	OW-13	10/14/19	--	--	--	--	--	--	--	--	--	--
		03/02/20	--	520	--	36000	--	ND(500)	--	ND(500)	--	ND(500)
		09/17/20	--	--	--	--	--	--	--	ND(100)	--	ND(100)
		12/09/20	--	--	--	--	--	--	--	5060	5060 J-	ND(100)
	PW-2	09/10/14	--	--	--	--	--	--	--	120	--	--
		09/18/17	--	ND(500)	--	6800	--	ND(500)	190	--	--	--
		09/21/20	--	--	--	--	--	--	--	160J/ND(500)U*	--	ND(500)
		12/28/20	--	--	--	--	--	--	--	96H/ND(96)U*	96/ND(96)U*	ND(100)
	PW-3	08/28/19	--	--	--	--	--	--	--	87 J	--	--
		09/21/20	--	--	--	--	--	--	--	130J/ND(500)U*	--	ND(500)
		12/28/20	--	--	--	--	--	--	--	185H/ND(185)U*	185/ND(185)U*	ND(100) UJ
	PW-4	08/27/19	--	--	--	--	--	--	--	130 J	--	--
		09/21/20	--	--	--	--	--	--	--	160J/ND(500)U*	--	ND(500)
		12/28/20	--	--	--	--	--	--	--	112H/ND(112)U*	112/ND(112)U*	ND(100)
	Selected Screening Level		NA	NA	NA	250,000	NA	1,600	NA	10,000	10,000	1,000

Notes:
-- = Not Measured
NA = Not Applicable
ND(x) = Not detected, where x = the reporting limit
NS = Not sampled
NS - Dry = Not sampled due to dry well
NS - H2S = Not sampled due to presense of Hydrogen Sulfide
NS - RW = Not sampled due to recovery well in place
NS - SPH = Not sampled due to presense of Separate Phase Hydrocarbons
Q = Quarter
Mohm/cm = Megaohms per centimeter
MPN/100ml = Most Probable Number per 100 milliliters
ug/L = micrograms per liter
umhos/cm = micromhos per centimeter
Std Units = Standard Units
TPH = Total Petroleum Hydrocarbons
oC = degrees Celsius
Data prior to July 2019 was not validated and flags have not been applied.
Bolded detections and italicized non-detections exceeded the selected screening levels.
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
J = Estimated concentration
J- = Estimated concentration, possibly biased low
J+ = Estimated concentration, possibly biased high
JB = Estimated concentration due to blank contamination
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Orthophosphate (ug/L)	Orthophosphorus (ug/L)	Sulfate (ug/L)	Diesel Range Organics (ug/L)	Gasoline Range Organics (ug/L)	Motor Oil (ug/L)	Oil Range Organics (ug/L)	C28-C40 (ug/L)	TPH (C6-C10) (ug/L)	Total Dissolved Solids (ug/L)
Western Boundary	BW-2B	09/13/17	ND(2500)	--	180000	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		09/12/18	ND(2500)	--	190000	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		08/14/19	--	ND(2500)	200000	ND(1000)	ND(50)	ND(5000)	--	--	--	--
		09/21/20	ND(500)	--	170000	ND(70) UJ	ND(50)	--	ND(600)	--	--	--
	BW-2C	09/13/17	ND(2500)	--	260000	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		09/18/18	910	--	270000	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		08/14/19	--	ND(2500)	260000	ND(1000)	ND(50)	ND(5000)	--	--	--	--
		09/22/20	ND(2500)	--	260000	ND(70)	ND(50)	--	ND(600)	--	--	--
	BW-3A	3Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-3B	09/13/17	ND(2500)	--	38000	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		09/12/18	1200	--	44000	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		08/14/19	--	ND(2500)	48000	ND(1000)	ND(50)	ND(5000)	--	--	--	--
		09/21/20	1400 J	--	48000	ND(70) UJ	ND(50)	--	ND(600)	--	--	--
	BW-3C	09/13/17	ND(2500)	--	320000	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		09/18/18	850	--	320000	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		08/14/19	--	ND(2500)	330000	ND(1000)	ND(50)	ND(5000)	--	--	--	--
		09/22/20	ND(2500)	--	330000	ND(70)	ND(50)	--	ND(600)	--	--	--
	BW-4A	4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-4B	03/10/20	ND(2500)	--	230000	ND(400)	13J/ND(50)U*	--	ND(2500)	--	--	--
		12/28/20	--	--	--	--	--	--	--	--	ND(100)	--
	BW-5A	4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-5B	10/16/19	--	ND(2500)	88000	ND(1000)	ND(50)	ND(5000)	--	--	--	--
		03/05/20	ND(2500)	--	90000	ND(400) UJ	ND(50)	--	ND(2500)	--	--	--
		09/20/20	ND(2500)	--	83000	ND(70)	ND(50)	--	ND(600)	--	--	--
		12/11/20	--	--	65600	ND(144)	--	--	--	ND(144)	ND(100)	--
	BW-5C	10/16/19	--	ND(2500)	220000	ND(1000)	ND(50)	ND(5000)	--	--	--	--
		03/05/20	ND(2500)	--	230000	ND(400) UJ	18 J	--	ND(2500)	--	--	--
		09/19/20	ND(2500) UJ	--	240000	ND(70) UJ	ND(50)	--	ND(600) UJ	--	--	--
		12/09/20	--	--	327000 J	ND(132)	--	--	--	ND(132)	ND(100) UJ	--
Deep	OW-01	10/16/19	--	ND(2500)	170000	ND(1000)	ND(50)	ND(5000)	--	--	--	--
		03/09/20	ND(2500)	--	180000	ND(400)	12J/ND(50)U*	--	ND(2500)	--	--	--
		09/20/20	ND(2500)	--	170000	ND(70)	ND(50)	--	ND(600)	--	--	--
		12/11/20	--	--	155000	ND(131)	--	--	--	ND(131)	ND(100)	--
	OW-10	10/17/19	--	ND(2500)	230000	ND(1000)	ND(50)	ND(5000)	--	--	--	--
		03/04/20	ND(2500)	--	220000	ND(400) UJ	11 J	--	ND(2500)	--	--	--
		09/20/20	ND(500)	--	180000	ND(70)	ND(50)	--	ND(600)	--	--	--
		12/11/20	--	--	169000	ND(133)	--	--	--	ND(133)	ND(100)	--
	OW-11	09/18/17	ND(2500)	--	850000	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		09/18/18	ND(10000)	--	1000000	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		08/20/19	--	ND(2500)	940000	ND(1000)	ND(50)	ND(5000)	--	--	--	--
		09/20/20	ND(500)	--	940000	ND(70)	ND(50)	--	ND(600)	--	--	--
	OW-12	09/19/17	ND(2500)	--	170000	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		09/19/18	--	--	--	ND(1000)	ND(50)	--	ND(5000)	--	--	--
		09/17/20	--	--	--	ND(70) UJ	370	--	ND(600) UJ	--	--	--
	OW-13	10/14/19	--	--	--	ND(1000)	59	ND(5000)	--	--	--	--
		03/02/20	ND(2500)	--	170000	ND(400)	56	--	ND(2500)	--	--	--
		09/17/20	--	--	--	ND(70)	ND(50)	--	ND(600)	--	--	--
		12/09/20	--	--	--	ND(128)	--	--	--	ND(128)	134	--
	PW-2	09/10/14	--	--	--	--	--	--	--	--	--	--
		09/18/17	ND(2500)	--	340000	--	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--	--	--	--	--
		12/28/20	--	--	--	--	--	--	--	--	--	--
	PW-3	08/28/19	--	--	--	--	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--	--	--	--	--
		12/28/20	--	--	--	--	--	--	--	--	--	--
	PW-4	08/27/19	--	--	--	--	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--	--	--	--	--
		12/28/20	--	--	--	--	--	--	--	--	--	--
	Selected Screening Level		NA	NA	600,000	16.7	10.1	85.8	85.8	NA	NA	NA

Notes:
-- = Not Measured
NA = Not Applicable
ND(x) = Not detected, where x = the reporting limit
NS = Not sampled
NS - Dry = Not sampled due to dry well
NS - H2S = Not sampled due to presense of Hydrogen Sulfide
NS - RW = Not sampled due to recovery well in place
NS - SPH = Not sampled due to presense of Separate Phase Hydrocarbons
Q = Quarter
Mohm/cm = Megaohms per centimeter
MPN/100ml = Most Probable Number per 100 milliliters
ug/L = micrograms per liter
umhos/cm = micromhos per centimeter
Std Units = Standard Units
TPH = Total Petroleum Hydrocarbons
oC = degrees Celsius
Data prior to July 2019 was not validated and flags have not been applied.
Bolded detections and italicized non-detections exceeded the selected screening levels.
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
J = Estimated concentration
J- = Estimated concentration, possibly biased low
J+ = Estimated concentration, possibly biased high
JB = Estimated concentration due to blank contamination
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration

Released to Imaging: 11/23/2022 10:12:17 AM

Received by OCD: 3/11/2022 2:16:23 PM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Total Suspended Solids (ug/L)	Soluble Salt (ug/L)	Coliform, E-Coli (MPN/100ml)	E-Coli (MPN/100ml)	pH (Std Units)	Resistivity (Mohm/cm)	Temperature (oC)
Western Boundary	BW-2B	09/13/17	--	--	--	--	--	--	--
		09/12/18	--	--	--	--	--	--	--
		08/14/19	--	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--	--
	BW-2C	09/13/17	--	--	--	--	--	--	--
		09/18/18	--	--	--	--	--	--	--
		08/14/19	--	--	--	--	--	--	--
		09/22/20	--	--	--	--	--	--	--
	BW-3A	3Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-3B	09/13/17	--	--	--	--	--	--	--
		09/12/18	--	--	--	--	--	--	--
		08/14/19	--	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--	--
	BW-3C	09/13/17	--	--	--	--	--	--	--
		09/18/18	--	--	--	--	--	--	--
		08/14/19	--	--	--	--	--	--	--
		09/22/20	--	--	--	--	--	--	--
	BW-4A	4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-4B	03/10/20	--	--	--	--	--	--	--
		12/28/20	--	--	--	--	--	--	--
	BW-5A	4Q2020	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry	NS - Dry
	BW-5B	10/16/19	--	--	--	--	--	--	--
		03/05/20	--	--	--	--	--	--	--
		09/20/20	--	--	--	--	--	--	--
		12/11/20	--	--	--	--	--	--	--
	BW-5C	10/16/19	--	--	--	--	--	--	--
		03/05/20	--	--	--	--	--	--	--
		09/19/20	--	--	--	--	--	--	--
		12/09/20	--	--	--	--	--	--	--
Deep	OW-01	10/16/19	--	--	--	--	--	--	--
		03/09/20	--	--	--	--	--	--	--
		09/20/20	--	--	--	--	--	--	--
		12/11/20	--	--	--	--	--	--	--
	OW-10	10/17/19	--	--	--	--	--	--	--
		03/04/20	--	--	--	--	--	--	--
		09/20/20	--	--	--	--	--	--	--
		12/11/20	--	--	--	--	--	--	--
	OW-11	09/18/17	--	--	--	--	--	--	--
		09/18/18	--	--	--	--	--	--	--
		08/20/19	--	--	--	--	--	--	--
		09/20/20	--	--	--	--	--	--	--
	OW-12	09/19/17	--	--	--	--	--	--	--
		09/19/18	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--
	OW-13	10/14/19	--	--	--	--	--	--	--
		03/02/20	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--
		12/09/20	--	--	--	--	--	--	--
	PW-2	09/10/14	--	--	--	--	--	--	--
		09/18/17	--	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--	--
		12/28/20	--	--	--	--	--	--	--
	PW-3	08/28/19	--	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--	--
		12/28/20	--	--	--	--	--	--	--
	PW-4	08/27/19	--	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--	--
		12/28/20	--	--	--	--	--	--	--
Selected Screening Level			NA	NA	NA	NA	NA	NA	NA

Notes:
-- = Not Measured
NA = Not Applicable
ND(x) = Not detected, where x = the reporting limit
NS = Not sampled
NS - Dry = Not sampled due to dry well
NS - H2S = Not sampled due to presense of Hydrogen Sulfide
NS - RW = Not sampled due to recovery well in place
NS - SPH = Not sampled due to presense of Separate Phase Hydrocarbons
Q = Quarter
Mohm/cm = Megaohms per centimeter
MPN/100ml = Most Probable Number per 100 milliliters
ug/L = micrograms per liter
umhos/cm = micromhos per centimeter
Std Units = Standard Units
TPH = Total Petroleum Hydrocarbons
oC = degrees Celsius
Data prior to July 2019 was not validated and flags have not been applied.
Bolded detections and italicized non-detections exceeded the selected screening levels.
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
J = Estimated concentration
J- = Estimated concentration, possibly biased low
J+ = Estimated concentration, possibly biased high
JB = Estimated concentration due to blank contamination
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration

Released to Imaging: 11/23/2022 10:12:17 AM

TABLE 4-7. FIELD PARAMETERS (2020)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location Group Name	Location ID	Date Sampled	Specific Conductance F (umhos/cm)	Dissolved Oxygen, Field (mg/L)	ORP, Field (mV)	pH, Field (Std Units)	Solids, Total Dissolved, Fiel (mg/L)	Temperature, Field (oC)
Deep Wells	OW-01	03/09/20	1530	2.46	242.8	9.2	994.5	11.6
Deep Wells		09/20/20	1620	0.86	232.2	8.56	1058	14.9
Deep Wells		12/07/20	1350	1.28	268.3	8.63	870	11.4
Deep Wells	OW-10	03/04/20	3760	0.42	269.7	7.79	2444	12.9
Deep Wells		09/20/20	3190	0.54	166	7.7	2067	13.3
Deep Wells		12/07/20	3280	0.59	246.9	7.37	2189	13.1
Deep Wells	OW-11	09/20/20	3200	0.69	176.6	8.64	2080	15
Deep Wells	OW-12	09/17/20	1230	2.57	251.7	9.95	799.5	17.5
Deep Wells	OW-13	03/02/20	1370	0.55	277.3	8.45	890.5	12.8
Deep Wells		09/17/20	1410	0.93	182.1	8.61	916.5	13.3
Deep Wells		12/07/20	1150	0.51	180	8	747	12.9
Deep Wells	PW-2	12/20/20	609	3.95	294.6	6.18	395.8	15.1
Deep Wells	PW-3	12/28/20	1460	4.91	268.4	7.74	949	16
Eastern Boundary Wells	OW-29	02/24/20	2080	0.55	73.9	7.5	1352	13.2
Eastern Boundary Wells		09/17/20	2270	0.54	60	7.91	1432	13.6
Eastern Boundary Wells		12/07/20	1810	0.65	184.2	7.04	1176	13
Eastern Boundary Wells	OW-50	03/02/20	1290	0.44	273.7	8.19	838.5	11.6
Eastern Boundary Wells		09/17/20	1350	0.41	147.5	8.62	884	13.1
Eastern Boundary Wells		12/07/20	1110	0.91	220.1	7.7	721	12.9
Eastern Boundary Wells	OW-52	03/02/20	1150	0.54	238.8	8.74	747.5	11.6
Eastern Boundary Wells		09/17/20	1130	0.46	114.3	8.72	734.5	12.7
Eastern Boundary Wells		12/07/20	930	1.1	217.6	7.9	604	12.8
Eastern Boundary Wells	OW-56	03/02/20	3010	4.63	273.1	8.06	1956.5	10.7
Eastern Boundary Wells		09/21/20	3170	5.22	145.3	7.95	2067	15.5
Eastern Boundary Wells		12/07/20	2515	3.54	271.1	7.87	1722	10.3
Evaporation Ponds	EP-2	09/17/20	12520	0.53	224.2	6.74	9448	17.8
Evaporation Ponds		12/21/20	11300	0.78	174.7	8.25	7352	2.3
Evaporation Ponds	EP-3	09/16/20	14650	1.06	147	8.04	10090	22.05
Evaporation Ponds		12/21/20	22470	1.36	198.9	7.78	14580	2.6
Evaporation Ponds	EP-4	09/17/20	26390	3.64	261	6.55	21510	14.4
Evaporation Ponds		12/21/20	27980	1.35	153.3	7.84	18180	4.6
Evaporation Ponds	EP-5	09/17/20	22650	4.89	246.8	6.9	18200	14.96
Evaporation Ponds		12/21/20	29500	2.93	197.6	7.65	19175	4.2
Evaporation Ponds	EP-6	09/17/20	218.1	7.54	21810	7.62	121600	15.77
Evaporation Ponds		12/21/20	30040	3.51	193.1	7.39	19519	2
Evaporation Ponds	EP-7	09/17/20	2312	1.28	145.4	7.04	1537	23.83
Evaporation Ponds		12/21/20	241700	2.77	257.5	7.25	157105	11.2

TABLE 4-7. FIELD PARAMETERS (2020)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location Group Name	Location ID	Date Sampled	Specific Conductance F (umhos/cm)	Dissolved Oxygen, Field (mg/L)	ORP, Field (mV)	pH, Field (Std Units)	Solids, Total Dissolved, Fiel (mg/L)	Temperature, Field (oC)
Evaporation Ponds	EP-9	09/17/20	2114	1.27	111	6.51	152.8	15.55
Evaporation Ponds	EP-11	12/22/20	235700	0.93	278.2	7.2	153270	0.2
Evaporation Ponds	EP-12A	12/22/20	49010	2.16	242.6	7.42	31310	0.8
Evaporation Ponds	EP-12B	07/18/20	27400	1.61	144.1	6.56	20000	19.2
Evaporation Ponds		12/22/20	28820	2.15	256.3	7.19	18850	1.1
Evaporation Ponds	STP-1 to EP-2	09/16/20	9548	5.43	68.6	5.49	7667	15.07
Evaporation Ponds		12/21/20	3090	6.92	269.7	7.76	2008	4.4
LTU	MW-1	09/22/20	10306.4	0.62	219.9	9.83	773.5	14.5
LTU	MW-2	09/18/20	1240	0.98	221.8	7.01	806	14.5
LTU	MW-4	09/18/20	1290	3.29	216.7	8.9	838.5	14.3
LTU	MW-5	09/21/20	1220	0.47	209.7	9.29	806	14.3
LTU	SMW-2	09/19/20	12880	2.46	224.6	7.64	841.8	15.1
LTU	SMW-4	09/20/20	1340	1.04	190	8.7	902.7	16.1
MKTF Wells	MKTF-02	02/24/20	4729	5.77	127.3	8.69	3112	8.13
MKTF Wells		09/21/20	5271	0.21	285.1	6.72	4297	14.76
MKTF Wells		12/03/20	9560	7.24	171.7	6.94	6214	11.5
MKTF Wells	MKTF-04	03/02/20	1546	2.02	30.1	8.39	1307	12.89
MKTF Wells	MKTF-09	03/02/20	1937	1.91	51.2	8.04	1259	11.22
MKTF Wells		09/20/20	6019	1.7	210.5	7.07	4627	16.89
MKTF Wells	MKTF-10	03/02/20	3683	1.61	3	7.83	2394	11.84
MKTF Wells		12/03/20	2480	2.87	220.4	6.92	6804	11.2
MKTF Wells	MKTF-11	03/02/20	3915	2.78	11.2	7.62	3327	12.68
MKTF Wells	MKTF-16	12/08/20	2890	0.98	53.8	6.97	1864	14.2
MKTF Wells	MKTF-18	02/05/20	1920	1.39	251.2	7.57	1248	10.9
MKTF Wells		12/09/20	1730	2.59	238.5	7.24	1124	14.6
MKTF Wells	MKTF-23	09/18/20	2183	1.76	206.1	6.23	1881	12.2
MKTF Wells	MKTF-24	02/24/20	3010	1.52	81	9.45	2555	12.87
MKTF Wells		09/19/20	3454	2.65	238.9	7.55	2960	12.35
MKTF Wells		12/04/20	3900	6.25	211.5	7.01	2541	10.8
MKTF Wells	MKTF-25	02/26/20	3855	6.28	91.5	8.39	2505	9.86
MKTF Wells		09/19/20	4060	11.68	86.3	5.51	3341	14.01
MKTF Wells		12/04/20	3820	4.8	165	7.05	2483	11.9
MKTF Wells	MKTF-27	02/24/20	18860	6.68	169.7	9.35	12260	8.53
MKTF Wells		09/20/20	1089	1.79	324.1	6.81	8099	18.46
MKTF Wells		12/04/20	10920	6.23	229	7.11	7104	10.4
MKTF Wells	MKTF-28	02/24/20	2384	4.74	132.6	9.94	1919	14.88
MKTF Wells		09/20/20	3278	3.36	260.1	7.35	2502	21.08

TABLE 4-7. FIELD PARAMETERS (2020)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location Group Name	Location ID	Date Sampled	Specific Conductance F (umhos/cm)	Dissolved Oxygen, Field (mg/L)	ORP, Field (mV)	pH, Field (Std Units)	Solids, Total Dissolved, Fiel (mg/L)	Temperature, Field (oC)
MKTF Wells	MKTF-28	12/04/20	2870	5.38	150.1	7.47	1830	14
MKTF Wells	MKTF-29	02/24/20	5305	6.11	114.3	10.3	3447	8.01
MKTF Wells		12/04/20	5790	1.77	256.5	6.85	3802	14
MKTF Wells	MKTF-30	02/26/20	3506	2.97	137.8	13.01	2279	12.19
MKTF Wells		09/20/20	3814	4.06	277.4	7.52	3070	14.91
MKTF Wells		12/04/20	5780	1.86	324.7	6.85	3763	11
MKTF Wells	MKTF-31	02/24/20	2013	3.78	151.9	9.63	1929	8.19
MKTF Wells		09/19/20	2765	2.11	113.5	6.43	2013	19.32
MKTF Wells		12/04/20	2410	6.39	276.4	6.81	1555	12.7
MKTF Wells	MKTF-32	02/26/20	2436	1.45	133.1	9.31	1584	12.54
MKTF Wells		09/20/20	2310	0.23	362.5	7.91	1881	14.4
MKTF Wells		12/04/20	2290	1.5	285.7	7.78	1508	14.1
MKTF Wells	MKTF-33	02/27/20	1445	0.98	142	8.48	939	12.65
MKTF Wells	MKTF-34	02/05/20	2730	5.82	146.1	8.15	1774.5	9.4
MKTF Wells		02/27/20	2370	6.56	167	8.51	1540	13.09
MKTF Wells		09/16/20	2237	2.27	227.5	7.42	1830	14.22
MKTF Wells	MKTF-35	02/05/20	1900	1.21	131.9	7.47	1235	10.1
MKTF Wells		09/16/20	2305	1.18	91.4	6.72	1642	20.42
MKTF Wells	MKTF-36	09/14/20	1868	2.85	31.1	6.87	1334	20.33
MKTF Wells	MKTF-37	09/17/20	1629	3.14	56.1	7.04	1213	18.34
MKTF Wells	MKTF-38	03/04/20	2093	3.04	156.8	7.8	1360	12.62
MKTF Wells		09/19/20	2764	1.98	165.2	7.8	2022	19.2
MKTF Wells	MKTF-39	02/03/20	2428	0.5	101.1	7.17	1578	13.4
MKTF Wells		09/19/20	1314	4.04	147.5	6.74	1314	19.04
MKTF Wells		12/04/20	17380	1.04	124.8	6.67	11453	15.1
MKTF Wells	MKTF-40	02/27/20	9446	5.5	146	8.42	6140	12.79
MKTF Wells		09/19/20	8303	5.01	128.5	7.01	6555	15.7
MKTF Wells		12/04/20	9790	6.04	62.7	7.11	6485	13.2
MKTF Wells	MKTF-41	02/26/20	2939	2.47	130.9	9.59	1910	12.48
MKTF Wells		09/21/20	2794	1.83	335.2	8.23	2359	12.96
MKTF Wells		12/04/20	2790	1.51	327.8	7.45	1885	13.3
MKTF Wells	MKTF-42	02/26/20	3350	0.74	137.9	9.79	2179	13.95
MKTF Wells		09/21/20	3167	1.52	338.4	8.27	2611	13.89
MKTF Wells		12/04/20	3150	0.6	256.1	7.81	2080	14
MKTF Wells	MKTF-43	02/26/20	1397	2.63	132.1	8.38	9083	8.09
MKTF Wells		09/21/20	21280	1.53	326.5	6.86	16310	16.97
MKTF Wells		12/04/20	19680	1.08	284.2	6.85	12992	14.3

TABLE 4-7. FIELD PARAMETERS (2020)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location Group Name	Location ID	Date Sampled	Specific Conductance F (umhos/cm)	Dissolved Oxygen, Field (mg/L)	ORP, Field (mV)	pH, Field (Std Units)	Solids, Total Dissolved, Fiel (mg/L)	Temperature, Field (oC)
MKTF Wells	MKTF-44	03/04/20	3826	2.55	160.9	8.02	2487	12.84
MKTF Wells		12/04/20	2110	6.14	222.1	8	1299.5	9.8
MKTF Wells	MKTF-46	03/05/20	2903	1.33	167.5	7.55	1887	11.24
MKTF Wells		09/14/20	2452	3.56	181.5	7.15	1853	17.68
MKTF Wells		12/04/20	2510	1.03	259.6	7.1	1645	13.8
MKTF Wells	MKTF-47	03/05/20	2008	5.67	171.2	7.92	1658	15.87
MKTF Wells	MKTF-49	03/04/20	4785	2.46	-13.5	7.35	3110	13.44
MKTF Wells		09/20/20	4778	2.52	308.4	6.91	3916	14.17
MKTF Wells		12/04/20	5390	1.45	35.1	6.86	3501	10.1
MKTF Wells	MKTF-50	03/03/20	2118	0.98	-32.5	7.8	1377	15.5
MKTF Wells		12/04/20	2870	1.6	89.4	7.13	1842	14.7
SWMU 1	OW-59	03/03/20	11720	1.18	316.2	7.84	7618	11.9
SWMU 1		09/19/20	12030	2.03	279.4	7.38	780.6	15.9
SWMU 1		12/07/20	10180	3.7	245.5	7.42	6614	12.2
SWMU 1	OW-60	03/03/20	7570	2.29	306.9	8.04	4927	12.4
SWMU 1		09/21/20	7440	4.11	217.3	8.23	484.2	15.1
SWMU 1		12/07/20	6290	4.14	283.5	7.62	4101	11.6
Tank Farm	OW-57	03/04/20	1850	1.02	105.8	7.49	1202.5	14.2
Tank Farm		09/18/20	1930	0.97	89	7.66	641.25	15
Tank Farm		12/07/20	1650	1.82	29.6	7.1	2072.5	12.1
Tank Farm	OW-58	09/17/20	2100	1.22	-49.6	7.85	1358.5	15.1
Tank Farm		12/07/20	2700	6.81	42.6	6.89	1748	13.4
Tank Farm	OW-58A	03/05/20	2618	1.92	-59.2	7.66	1701	15.7
Tank Farm		09/18/20	2560	0.89	69.9	7.49	1664	14.1
Tank Farm		12/07/20	2260	1.55	13.3	7.27	1479	5.2
Tank Farm	OW-63	03/04/20	1750	0.46	118.1	7.52	1137.5	13.7
Tank Farm		09/22/20	1800	0.53	-76.4	7.67	1163.5	14.3
Tank Farm		12/08/20	1490	0.9	48.3	6.98	936	14.3
Tank Farm	OW-64	03/04/20	1930	3.18	260.4	8.13	1254.5	13.9
Tank Farm		09/22/20	5493.3	2.53	224.5	8.5	1404	16.8
Tank Farm		12/07/20	1730	3.61	258.3	7.56	1098	11.4
Western Boundary Wells	BW-1C	09/20/20	1480	0.66	189	8.99	962	15.4
Western Boundary Wells	BW-2A	09/20/20	1500	0.55	34.6	7.95	975	15
Western Boundary Wells	BW-2B	09/21/20	2390	0.75	231.7	8.11	1553.8	13.7
Western Boundary Wells	BW-2C	09/22/20	8790.2	2.41	245.9	9.62	923	14.5
Western Boundary Wells	BW-3B	09/21/20	1640	0.49	75.8	8.36	1066	14.1
Western Boundary Wells	BW-3C	09/22/20	7922.3	1.19	205.5	9.51	1040	13.9

TABLE 4-7. FIELD PARAMETERS (2020)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location Group Name	Location ID	Date Sampled	Specific Conductance F (umhos/cm)	Dissolved Oxygen, Field (mg/L)	ORP, Field (mV)	pH, Field (Std Units)	Solids, Total Dissolved, Fiel (mg/L)	Temperature, Field (oC)
Western Boundary Wells	BW-4B	12/07/20	1510	7.5	281.6	7.83	1001	12.8
Western Boundary Wells	BW-5B	03/05/20	2670	2.27	221.6	8.97	1735.5	12
Western Boundary Wells		09/20/20	2890	2.41	245.6	8.71	1878	14.4
Western Boundary Wells		12/07/20	2460	2.98	277	8.45	1599	10.3
Western Boundary Wells	BW-5C	03/05/20	5770	0.89	209.1	8.08	3750.5	12
Western Boundary Wells		09/19/20	6700	1.24	65.8	8.01	4361	12.6
Western Boundary Wells		12/07/20	5790	0.83	187.6	7.35	3763	12.1
WWT	NAPIS-2	03/03/20	1306	1.13	37.7	8.12	849	19.36
WWT		09/22/20	6406.2	6.96	146.5	8.23	975	26.9
WWT		12/07/20	700	3.54	119.8	7.21	454.5	21.6
WWT	NAPIS-3	03/03/20	3041	1.67	157.6	8.57	1977	18.02
WWT		09/22/20	3757.5	2.67	209	8.16	1696.5	24.6
WWT		12/07/20	1520	4.56	160.3	7.18	1090	20.9
WWT	KA-3	03/03/20	2039	1.17	-49	7.69	1326	21.02
WWT		09/22/20	2220	1.06	-30.2	7.61	1443	25
WWT		12/07/20	2340	1.32	228.8	7.4	1521	18.7
WWT	OAPIS-1	03/03/20	5939	1.19	41.4	7.74	3861	14.36
WWT		09/22/20	1383	0.81	248.2	8.02	4426	17.7
WWT		12/04/20	5430	2.08	223.5	7.25	3529	14.3
WWT	LDU - East	12/07/20	2760	4.48	65.1	7.09	1777	9.6
WWT	LDU - West	12/07/20	1340	4.71	135	7.5	860	10.9
WWT	STP1-NW	03/03/20	7263	2.87	146.9	8.48	4722	12.53
WWT		12/08/20	7760	3.3	250.9	7.76	6044	11.2

Notes:
Samples not collected during second quarter of 2020 due to the Covid-19 pandemic.
°C = Degrees Celsius
mg/L = Milligrams per liter
mV = Millivolts
umhos/cm = Micromhos per centimeter
Std = Standard
LTU - Land Treatment Unit
MKTF - Marketing Tank Farm
SWMU - Solid Waste Management Unit
WWT - Wastewater Treatment

TABLE 5-1. RECOVERY WELL DATA
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Standpipes Recovery Records							
Date	**Number of Loads**	**Water/Oil Mixture (gallons)**	**Oil (gallons)**		**Hydrocarbon Recovered**	**Water Pumped (gallons)**	**Total Fluid Pumped (gallons)**
31-Mar-20	0	0	0	1st Qtr 2020	0	0	0
01-Apr-20	0	3,000	3000	2nd Qtr 2020	0	3,000	3,000
01-Sep-20	0	0	0	3rd Qtr 2020 Totals	0	0	0
15-Dec-20	0	4,500	4500	4th Qtr 2020	0	4,500	4,500

Retention Ditch						
Date	**Number of Loads**	**Water/Oil Mixture (gallons)**	**Oil (gallons)**		**Number of Loads**	**Water/Oil Mixture (gallons)**
31-Mar-20	0	0	0	1st Qtr 2020 Totals	0	0
30-Jun-20	0	0	0	2nd Qtr 2020 Totals	0	0
1-Sep-20	1	200	2	3rd Qtr 2020 Totals	1	200
15-Dec-20	0	0	0	4th Qtr 2020	0	0



Figures

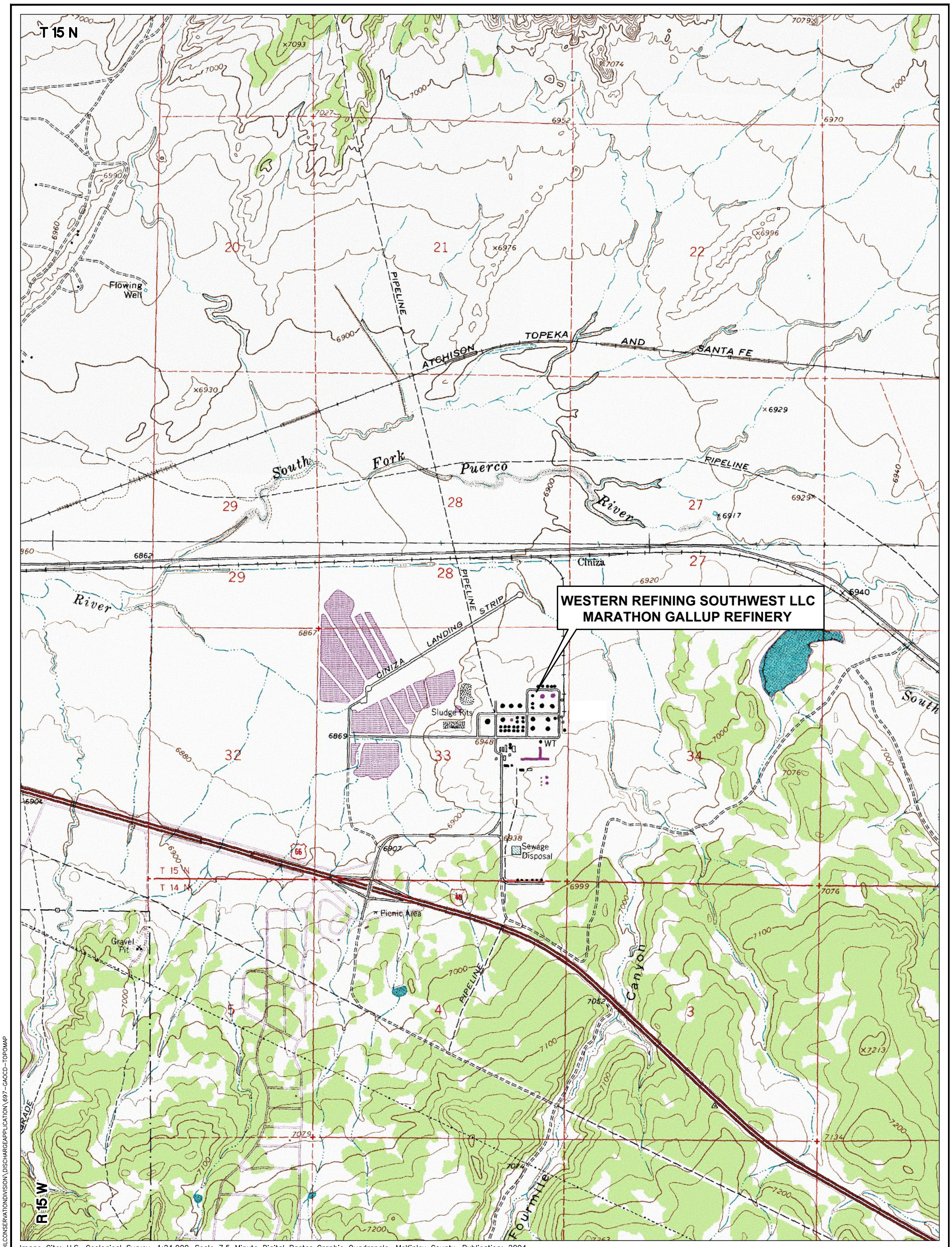


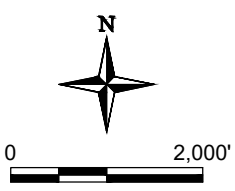
Image Cite: U.S. Geological Survey, 1:24,000–Scale 7.5 Minute Digital Raster Graphic Quadrangle, McKinley County, Publication: 2004

NOTE:

SITE LEGAL DESCRIPTION - TOWNSHIP 15 NORTH, RANGE 15 WEST, SECTION 33, LOWER QUARTER SECTION 28, AND NORTHEAST QUARTER SECTION 4.



QUADRANGLE LOCATION



Trihydro CORPORATION
1252 Commerce Drive
Laramie, Wyoming 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

FIGURE 1-1

TOPOGRAPHIC MAP

WESTERN REFINING SOUTHWEST LLC
MARATHON GALLUP REFINERY
GALLUP, NEW MEXICO

Drawn By: REP	Checked By: MS	Scale: 1" = 2,000'	Date: 3/8/21	File: 697-GAOCD-TOPOMAP

\\TRIHYDRO.COM\CLIENTS\TON\MARATHON\CADD\GALLUP_REPORTS\OILCONSERVATIONDIVISION\DISCHARGEAPPLICATION\697-GAOCD-TOPOMAP

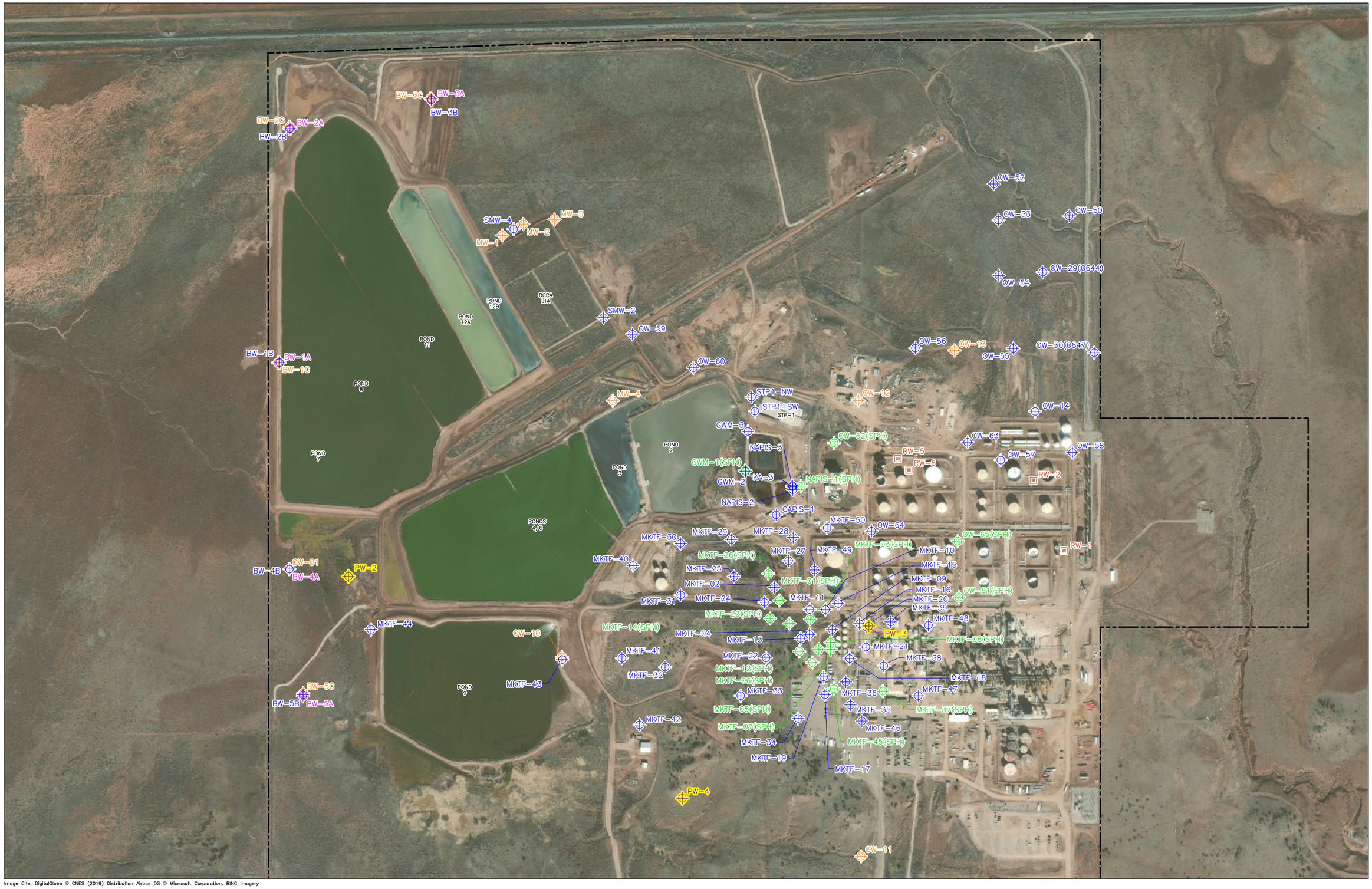


Image Cite: DigitalGlobe © CNES (2019) Distribution Airbus DS © Microsoft Corporation, BING Imagery

EXPLANATION

OW-59	CHINLE/ALLUVIUM INTERFACE MONITORING WELL
BW-5A	ALLUVIAL/FLUVIAL UPPER SAND MONITORING WELL
MKTF-23(SPH)	SPH MONITORING WELL
MW-4	SONSELA MONITORING WELL
PW-4	RAW WATER PRODUCTION WELL AND DESIGNATION
	PROPERTY BOUNDARY (APPROXIMATE)
SPH	SEPARATE - PHASE HYDROCARBON

N

0 400' 800'

Trihydro CORPORATION
1252 Commerce Drive
Laramie, Wyoming 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

FIGURE 1-2

SITE PLAN

WESTERN REFINING SOUTHWEST LLC
MARATHON GALLUP REFINERY
GALLUP, NEW MEXICO

Drawn By: REP	Checked By: CF	Scale: 1" = 400'	Date: 4/21/2021	File: 697-GAOCD-SITEMAP

M:\TOM\MARATHON\GADD\GALLUP__REPORTS\OILCONSERVATIONDIVISION\DISCHARGEAPPLICATION\697-GAOCD-SITEMAP

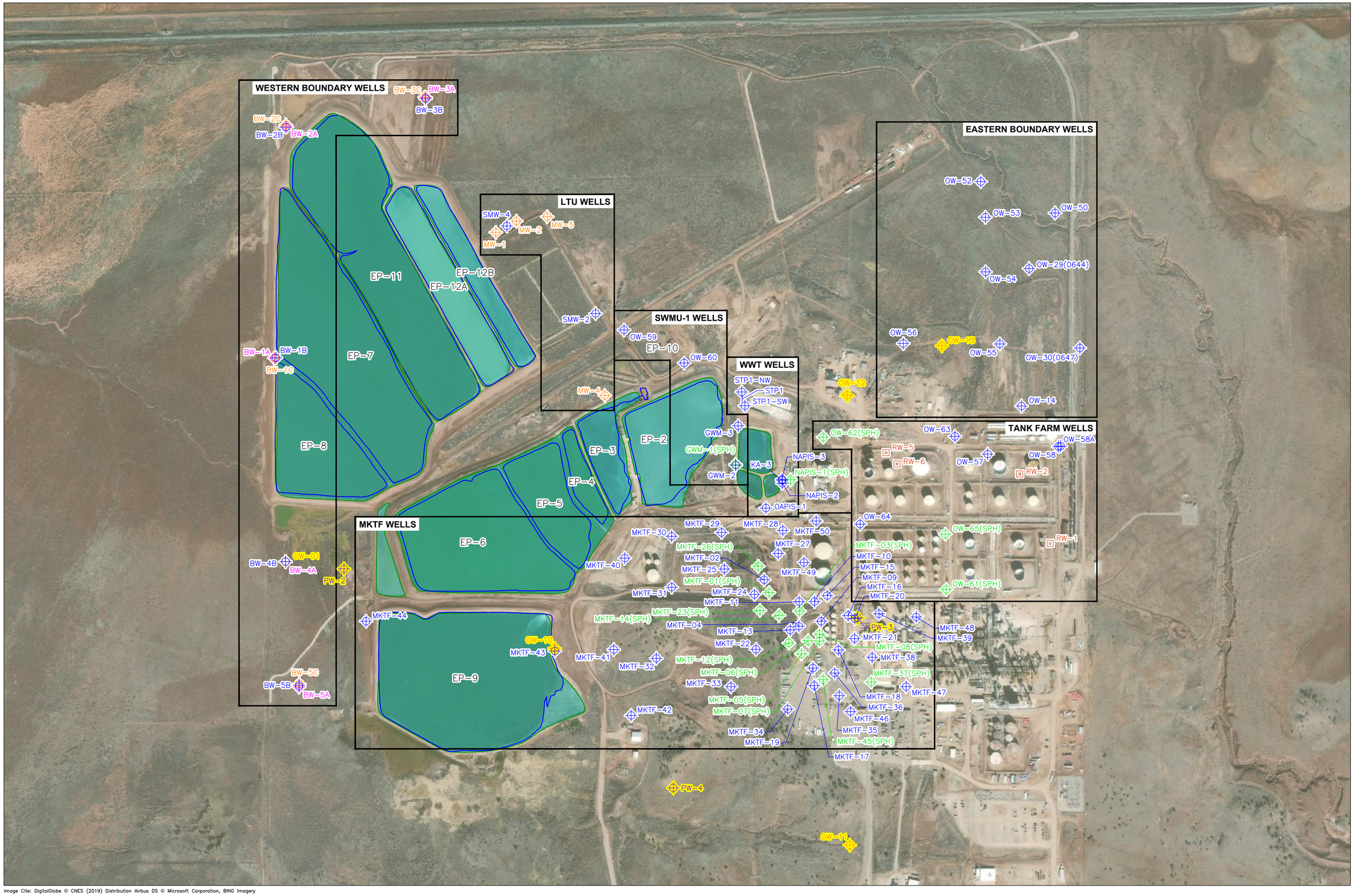


Image Cite: DigitalGlobe © CNES (2019) Distribution Airbus DS © Microsoft Corporation, BING Imagery

EXPLANATION

OW-10	SONSELA WELL AND DESIGNATION		SURFACE WATER
OW-11	CHINLE/ALLUVIUM INTERFACE WELL AND DESIGNATION	EP	EVAPORATION POND
SMW-2	ALLUVIAL/FLUVIAL UPPER SAND WELL AND DESIGNATION	LTU	LAND TREATMENT UNIT
MKTF-45	SPH MONITORING WELL AND DESIGNATION	SPH	SEPARATE-PHASE HYDROCARBON
PW-4	RAW WATER PRODUCTION WELL AND DESIGNATION	STP	SANITARY TREATMENT POND
RW-6	RECOVERY WELL AND DESIGNATION	SWMU	SOLID WASTE MANAGEMENT UNIT
	WELL GROUP	WWT	WASTE WATER TREATMENT

NOTE:
DEEP WELL GROUP: PW-2, PW-3, PW-4, OW-1, OW-10, OW-11, OW-12 AND OW-13 ARE SHOWN IN YELLOW HALO.

N

0 400' 800'

Trihydro CORPORATION
1252 Commerce Drive
Laramie, Wyoming 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

FIGURE 2-1

WELL GROUPS

WESTERN REFINING SOUTHWEST LLC
MARATHON GALLUP REFINERY
GALLUP, NEW MEXICO

Drawn By: REP	Checked By: MS	Scale: 1" = 400'	Date: 7/27/21	File: 697-GW-FACWELLGROUPS-2021

M:\TOWN\MARATHON\2400\GALLUP_REPORTS\GW\WORKPLANS\2021_GW-WORKPLAN\697-GW-FACWELLGROUPS-2021



EXPLANATION

● BW–5A DRY — MONITORING WELL AND DESIGNATION (SHOWING GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL)

NOTE:

1. GROUNDWATER ELEVATIONS SURFACE GENERATED USING 3RD QUARTER ANNUAL MONITORING EVENT.

N

0 400'

Trihydro CORPORATION
1252 Commerce Drive
Laramie, Wyoming 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

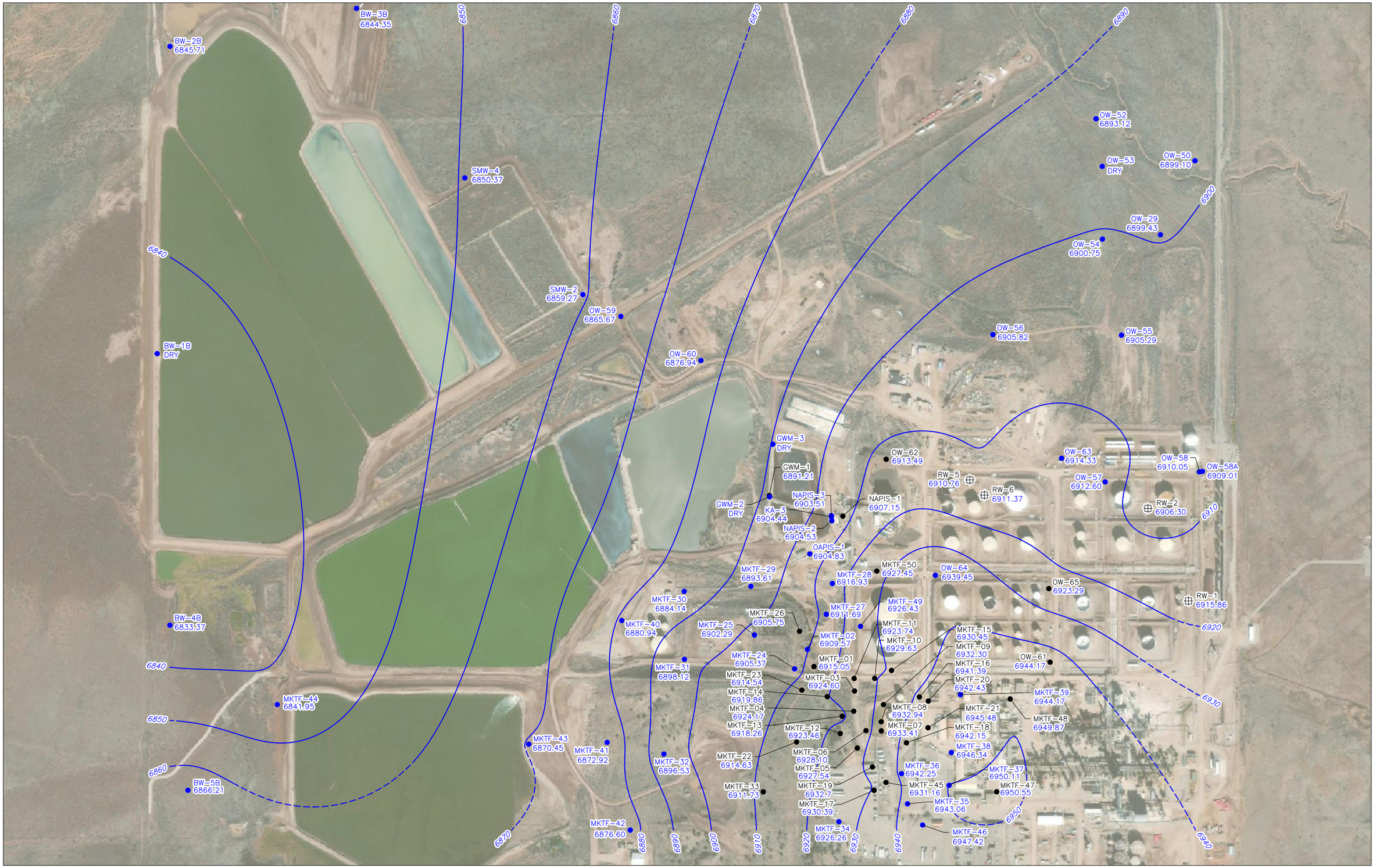
FIGURE 3-1

ALLUVIAL/FLUVIAL UPPER SAND AQUIFER POTENTIOMETRIC SURFACE MAP (2020)

**WESTERN REFINING SOUTHWEST LLC
MARATHON GALLUP REFINERY
GALLUP, NEW MEXICO**

Drawn By: SB	Checked By: CF	Scale: 1" = 400'	Date: 1/25/22	File: 697-G-GW_PS-MAPALLUVIAL-202009

M:\TON\MARATHON\CADD\GALLUP_REPORTS\GW\ANNUALREPORTS\2020_ANNUALREPORT\697-G-GW_PS-MAPALLUVIAL-202009



EXPLANATION

- BW-5B 6866.21 — CHINLE / ALLUVIUM WELL AND DESIGNATION (ELEVATION IN FEET ABOVE MEAN SEA LEVEL)
- MKTF-06 — SPH MONITORING WELL AND DESIGNATION
- RW-1 — RECOVERY WELL
- 6875 — LINE OF EQUAL ELEVATION OF POTENTIOMETRIC SURFACE (FEET ABOVE MEAN SEA LEVEL, DASHED WHERE INFERRED)
- SPH — SEPARATE-PHASE HYDROCARBON

NOTE:

1. POTENTIOMETRIC SURFACE GENERATED USING 3RD QUARTER ANNUAL MONITORING EVENT.

N

0 300' 600'

Trihydro CORPORATION
1252 Commerce Drive
Laramie, Wyoming 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

FIGURE 3-2

CHINLE/ALLUVIUM AQUIFER POTENTIOMETRIC SURFACE MAP (2020)

WESTERN REFINING SOUTHWEST LLC MARATHON GALLUP REFINERY GALLUP, NEW MEXICO

Drawn By: SB	Checked By: CF	Scale: 1" = 200'	Date: 10/22/2021	File:697-G-GW_PS-MAPCHINLE-202009

M:\LITON\MARATHON\CAD\GALLUP_REPORTS\GW\ANNUALREPORTS\2020_ANNUALREPORT\697-G-GW_PS-MAPCHINLE-202009



NOTE:

1. POTENTIOMETRIC SURFACE GENERATED USING 3RD QUARTER ANNUAL MONITORING EVENT.
2. OW-01 AND OW-10 NOT INCLUDED IN CONTOUR DUE TO ARTESIAN CONDITIONS PRESENT.

N

0 600'

EXPLANATION

BW–5C 6872.49	MONITORING WELL AND DESIGNATION (SHOWING GROUNDWATER ELEVATION IN FT AMSL)
PW–4	RAW WATER PRODUCTION WELL AND DESIGNATION
6875	LINE OF EQUAL ELEVATION OF POTENTIOMETRIC SURFACE (FEET ABOVE MEAN SEA LEVEL, DASHED WHERE INFERRED)
NM	NOT MEASURED

Trihydro CORPORATION
1252 Commerce Drive
Laramie, Wyoming 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

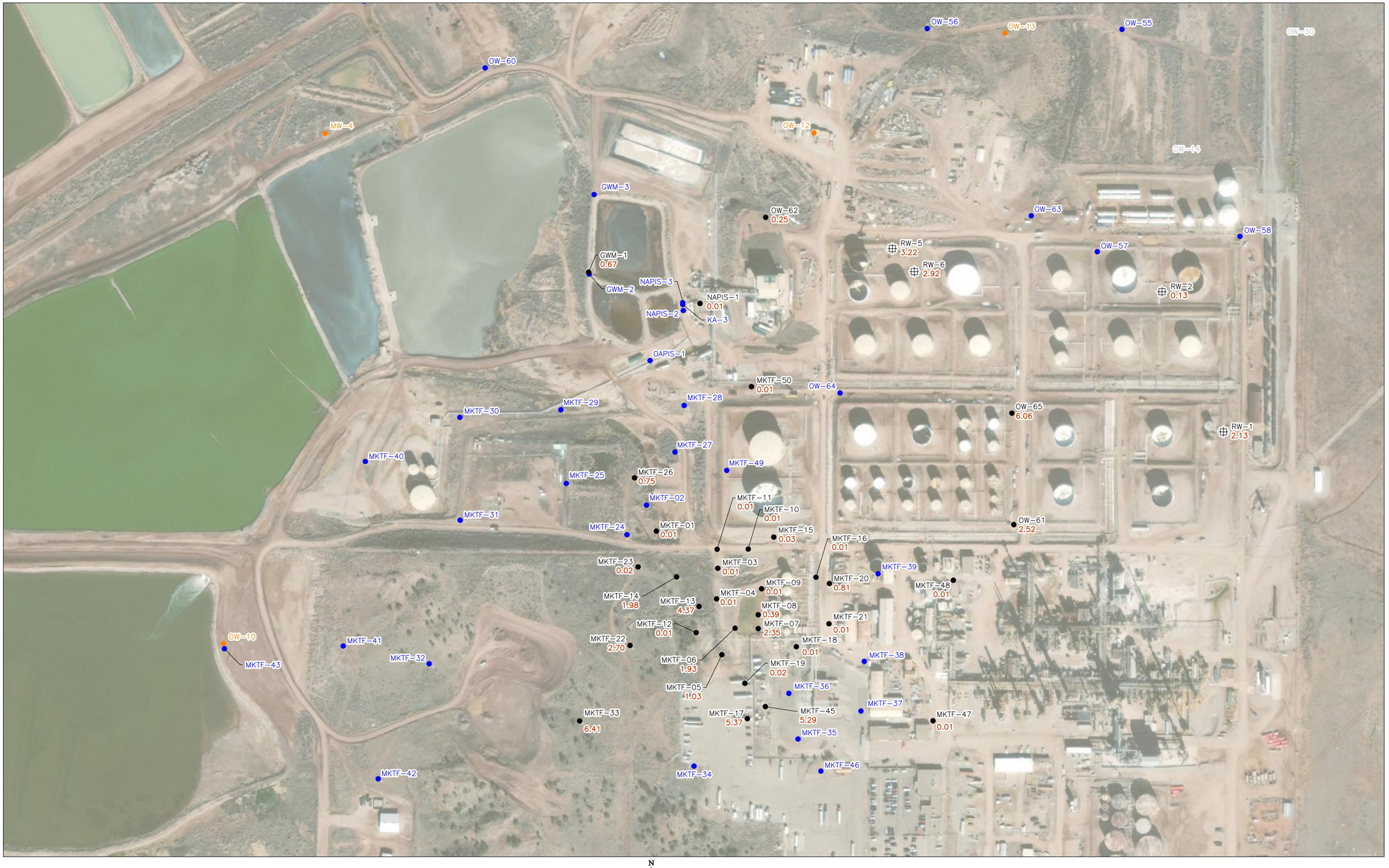
FIGURE 3-3

SONSELA AQUIFER POTENTIOMETRIC SURFACE MAP (2020)

WESTERN REFINING SOUTHWEST LLC
MARATHON GALLUP REFINERY
GALLUP, NEW MEXICO

Drawn By:	Checked By:	Scale:	Date:	File:
SB	CF	1" = 600'	8/17/21	697-G-GW_PS-MAPSONSELA-202009

\\TRIHYDRO.COM\CLIENTS\TON_MARATHON\CADD\GALLUP_REPORTS\GW\ANNUALREPORTS\2020_ANNUALREPORT\697-G-GW_PS-MAPSONSELA-202009



EXPLANATION

- MKTF-06 6.57 — SPH MONITORING WELL AND DESIGNATION (SHOWING SPH THICKNESS IN FEET)
- MKTF-17 — CHINLE / ALLUVIUM WELL AND DESIGNATION
- OW-10 — SONSELA WELL AND DESIGNATION
- BW-4A — ALLUVIAL/FLUVIAL UPPER SAND WELL AND DESIGNATION
- RW-1 — RECOVERY WELL
- SPH — SEPARATE-PHASE HYDROCARBON

NOTES:

1. WELLS NOT MEASURED IN THIS EVENT ARE SHOWN IN GRAY COLOR.
2. WELL BW-4B IS APPROXIMATELY 2,175 FEET WEST OF WELL MKTF-40.

Trihydro CORPORATION
1252 Commerce Drive
Laramie, Wyoming 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

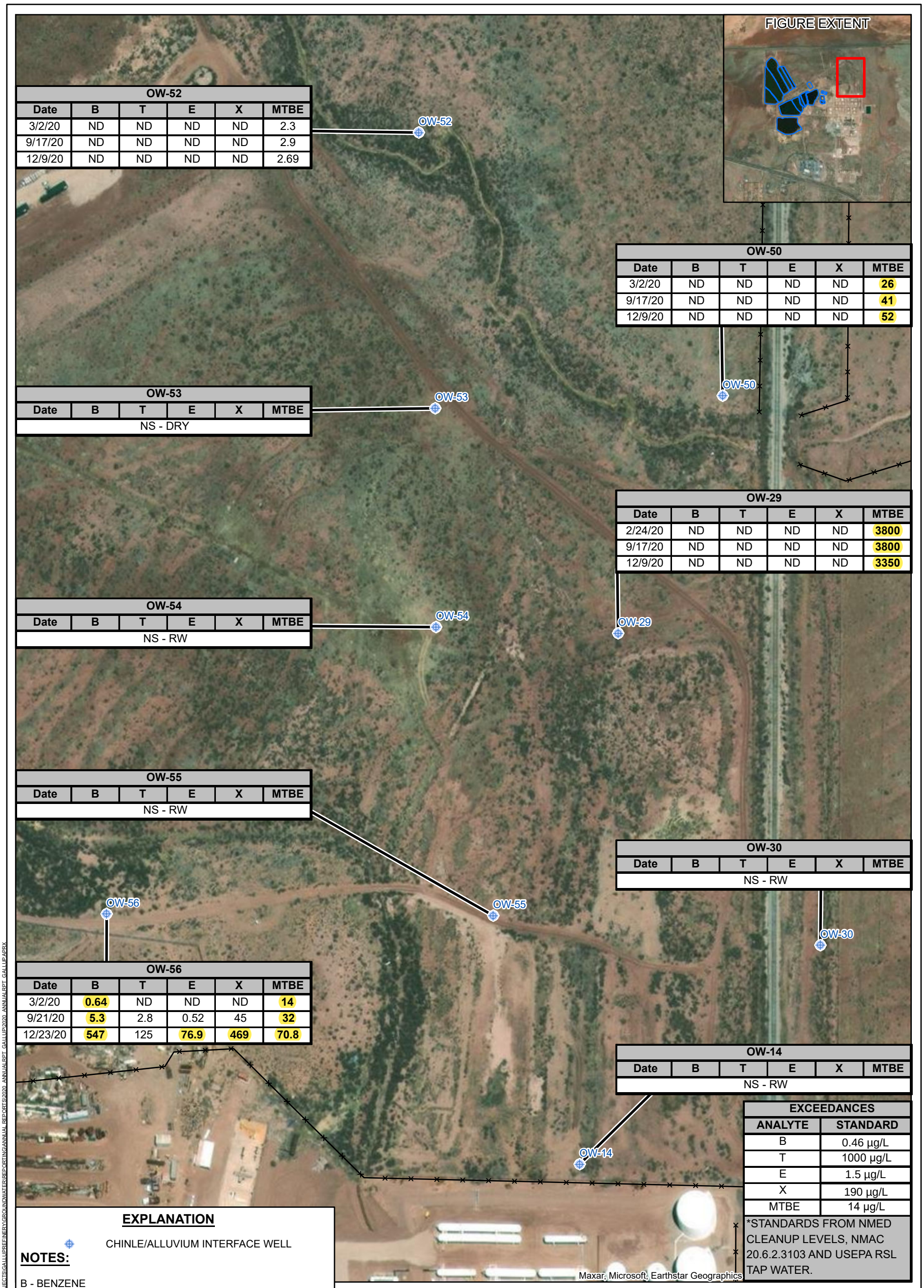
FIGURE 3-4

SPH THICKNESS MAP (2020)

WESTERN REFINING SOUTHWEST LLC
MARATHON GALLUP REFINERY
GALLUP, NEW MEXICO

Drawn By: REP	Checked By: CF	Scale: 1" = 200'	Date: 8/17/2021	File: 697-G-GW_SPH-ISOCONT-202009

M:\UTON\MARATHON\CADD\GALLUP_REPORTS\GW\ANNUALREPORTS\2020_ANNUALREPORT\697-G-GW_SPH-ISOCONT-202009



OW-52

Date	B	T	E	X	MTBE
3/2/20	ND	ND	ND	ND	2.3
9/17/20	ND	ND	ND	ND	2.9
12/9/20	ND	ND	ND	ND	2.69

OW-50

Date	B	T	E	X	MTBE
3/2/20	ND	ND	ND	ND	**26**
9/17/20	ND	ND	ND	ND	**41**
12/9/20	ND	ND	ND	ND	**52**

OW-53

Date	B	T	E	X	MTBE
NS - DRY					

OW-29

Date	B	T	E	X	MTBE
2/24/20	ND	ND	ND	ND	**3800**
9/17/20	ND	ND	ND	ND	**3800**
12/9/20	ND	ND	ND	ND	**3350**

OW-54

Date	B	T	E	X	MTBE
NS - RW					

OW-55

Date	B	T	E	X	MTBE
NS - RW					

OW-30

Date	B	T	E	X	MTBE
NS - RW					

OW-56

Date	B	T	E	X	MTBE
3/2/20	**0.64**	ND	ND	ND	**14**
9/21/20	**5.3**	2.8	0.52	45	**32**
12/23/20	**547**	125	**76.9**	**469**	**70.8**

OW-14

Date	B	T	E	X	MTBE
NS - RW					

EXCEEDANCES

ANALYTE	STANDARD
B	0.46 µg/L
T	1000 µg/L
E	1.5 µg/L
X	190 µg/L
MTBE	14 µg/L

*STANDARDS FROM NMED CLEANUP LEVELS, NMAC 20.6.2.3103 AND USEPA RSL TAP WATER.

EXPLANATION

CHINLE/ALLUVIUM INTERFACE WELL

NOTES:

B - BENZENE
E - ETHYLBENZENE
T - TOLUENE
X - XYLENE
MTBE - METHYL TERT BUTYL ETHER
ND - NON-DETECT
NS - NOT SAMPLED FOR BTEX OR MTBE
RW - RECOVERY WELL
- ALL RESULTS ARE REPORTED IN MICROGRAMS PER LITER
- DETECTS EXCEEDING THE STANDARD ARE **BOLD AND HIGHLIGHTED**

N

0 150'

Trihydro CORPORATION
1252 Commerce Drive
Laramie, WY 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

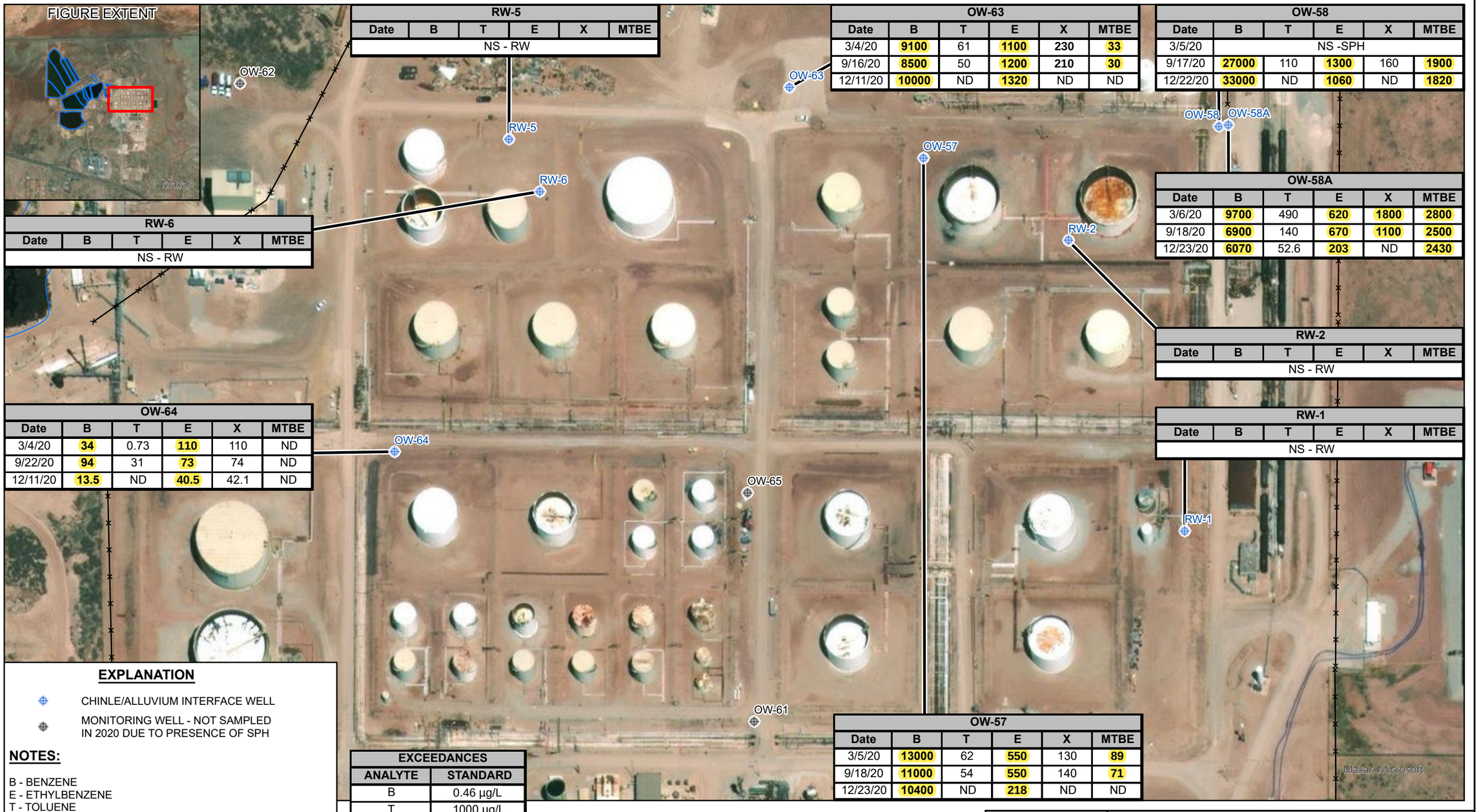
FIGURE 4-1

EASTERN BOUNDARY MONITORING WELLS BTEX AND MTBE

WESTERN REFINING SOUTHWEST LLC MARATHON GALLUP REFINERY GALLUP, NEW MEXICO

Drawn By: KEJ	Checked By: MS	Scale: 1" = 150'	Date: 8/20/21	File: 4-1_EasternBoundaryMW_Fig4-1

\\TRIHYDRO.COM\CLIENTS\TON\MARATHON\GIS\PROJECTS\GALLUPREFINERY\GROUNDWATER\REPORTING\ANNUAL REPORTS\2020 ANNUAL RPT_GALLUP\2020_ANNUALRPT_GALLUP.APRX



RW-5					
Date	B	T	E	X	MTBE
NS - RW					

RW-6					
Date	B	T	E	X	MTBE
NS - RW					

OW-63					
Date	B	T	E	X	MTBE
3/4/20	**9100**	61	**1100**	**230**	**33**
9/16/20	**8500**	50	**1200**	**210**	**30**
12/11/20	**10000**	ND	**1320**	ND	ND

OW-58					
Date	B	T	E	X	MTBE
3/5/20	NS -SPH				
9/17/20	**27000**	110	**1300**	160	**1900**
12/22/20	**33000**	ND	**1060**	ND	**1820**

OW-58A					
Date	B	T	E	X	MTBE
3/6/20	**9700**	490	**620**	**1800**	**2800**
9/18/20	**6900**	140	**670**	**1100**	**2500**
12/23/20	**6070**	52.6	**203**	ND	**2430**

RW-2					
Date	B	T	E	X	MTBE
NS - RW					

RW-1					
Date	B	T	E	X	MTBE
NS - RW					

OW-64					
Date	B	T	E	X	MTBE
3/4/20	**34**	0.73	**110**	110	ND
9/22/20	**94**	31	**73**	74	ND
12/11/20	**13.5**	ND	**40.5**	42.1	ND

OW-57					
Date	B	T	E	X	MTBE
3/5/20	**13000**	62	**550**	130	**89**
9/18/20	**11000**	54	**550**	140	**71**
12/23/20	**10400**	ND	**218**	ND	ND

EXPLANATION

CHINLE/ALLUVIUM INTERFACE WELL

MONITORING WELL - NOT SAMPLED IN 2020 DUE TO PRESENCE OF SPH

NOTES:

B - BENZENE
E - ETHYLBENZENE
T - TOLUENE
X - XYLENE
MTBE - METHYL TERT BUTYL ETHER
ND - NON-DETECT
NS - NOT SAMPLED FOR BTEX OR MTBE
RW - RECOVERY WELL
SPH - SEPARATE PHASE HYDROCABRON
- ALL RESULTS ARE REPORTED IN MICROGRAMS PER LITER
- DETECTS EXCEEDING THE STANDARD ARE **BOLD AND HIGHLIGHTED**

EXCEEDANCES	
ANALYTE	STANDARD
B	0.46 µg/L
T	1000 µg/L
E	1.5 µg/L
X	190 µg/L
MTBE	14 µg/L

*STANDARDS FROM NMED CLEANUP LEVELS, NMAC 20.6.2.3103 AND USEPA RSL TAP WATER.

N

0 150'

Trihydro CORPORATION
1252 Commerce Drive
Laramie, WY 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

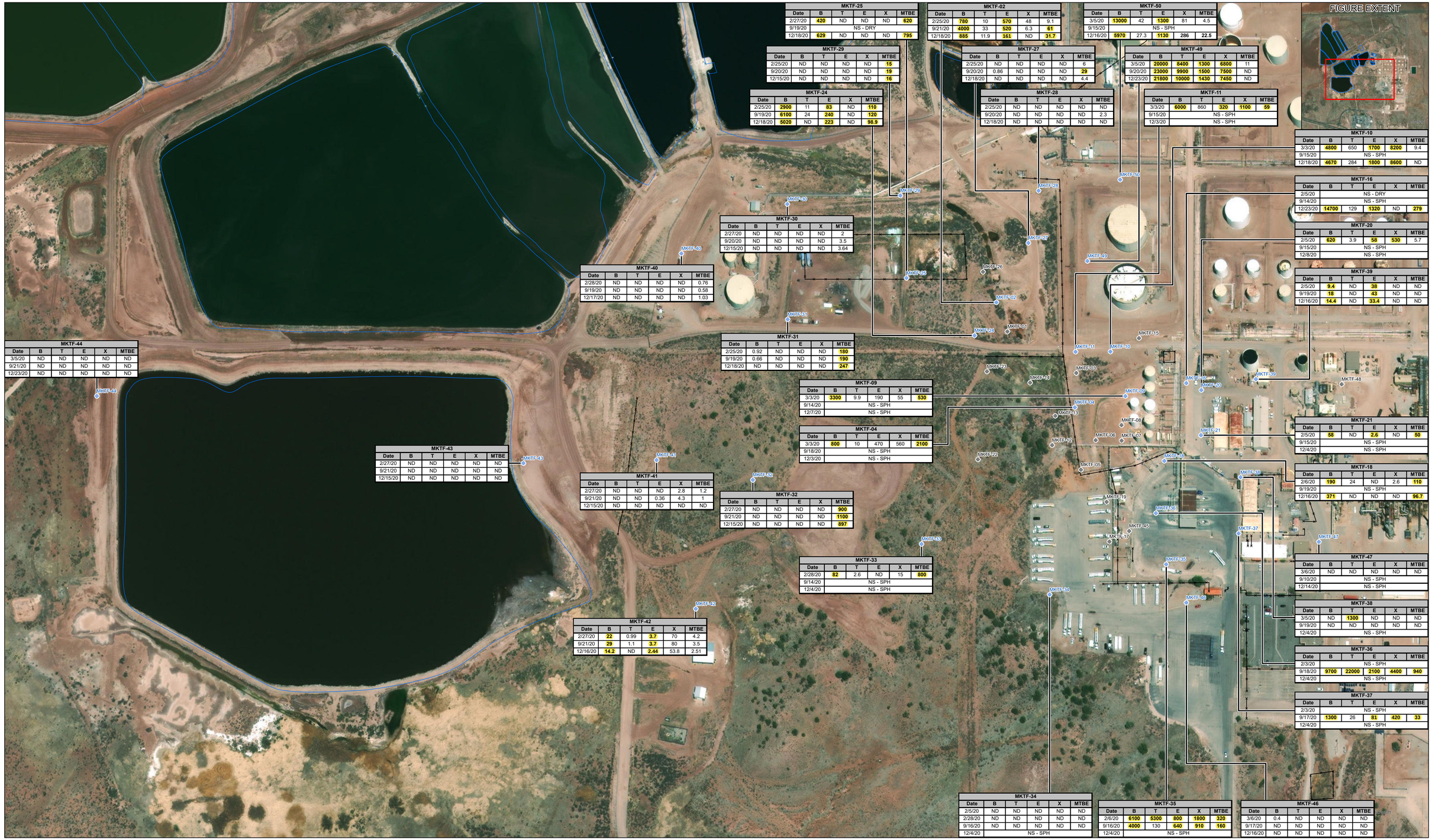
FIGURE 4-2

TANK FARM MONITORING WELLS BTEX AND MTBE

WESTERN REFINING SOUTHWEST LLC MARATHON GALLUP REFINERY GALLUP, NEW MEXICO

Drawn By: KEJ	Checked By: MS	Scale: 1" = 150'	Date: 8/20/21	File: 4-2_TankFarmMW_Fig4-2

\\TRIHYDRO.COM\CLIENTS\TON\MARATHON\GIS\PROJECTS\GALLUP\PREFINERY\GROUNDWATER\REPORTING\ANNUAL REPORTS\2020 ANNUAL\RPT GALLUP\2020 ANNUALRPT GALLUP.APRX



MKTF-25

Date	B	T	E	X	MTBE
2/27/20	420	ND	ND	ND	620
9/19/20	NS - DRY				
12/18/20	629	ND	ND	ND	795

MKTF-02

Date	B	T	E	X	MTBE
2/25/20	780	10	570	48	9.1
9/21/20	4000	33	520	6.3	61
12/18/20	885	11.9	161	ND	31.7

MKTF-50

Date	B	T	E	X	MTBE
3/5/20	13000	42	1300	81	4.5
9/15/20	NS - SPH				
12/16/20	5970	27.3	1130	286	22.5

MKTF-29

Date	B	T	E	X	MTBE
2/25/20	ND	ND	ND	ND	15
9/20/20	ND	ND	ND	ND	19
12/15/20	ND	ND	ND	ND	16

MKTF-27

Date	B	T	E	X	MTBE
2/25/20	ND	ND	ND	ND	6
9/20/20	0.86	ND	ND	ND	29
12/18/20	ND	ND	ND	ND	4.4

MKTF-49

Date	B	T	E	X	MTBE
3/5/20	20000	8400	1300	6800	11
9/20/20	23000	9900	1500	7500	ND
12/23/20	21800	10000	1430	7450	ND

MKTF-24

Date	B	T	E	X	MTBE
2/25/20	2900	11	83	ND	110
9/19/20	6100	24	240	ND	120
12/18/20	5020	ND	223	ND	98.9

MKTF-28

Date	B	T	E	X	MTBE
2/25/20	ND	ND	ND	ND	ND
9/20/20	ND	ND	ND	ND	2.3
12/18/20	ND	ND	ND	ND	ND

MKTF-11

Date	B	T	E	X	MTBE
3/3/20	6000	860	320	1100	59
9/15/20	NS - SPH				
12/3/20	NS - SPH				

MKTF-10

Date	B	T	E	X	MTBE
3/3/20	4800	650	1700	8200	9.4
9/15/20	NS - SPH				
12/18/20	4670	284	1800	8600	ND

MKTF-30

Date	B	T	E	X	MTBE
2/27/20	ND	ND	ND	ND	2
9/20/20	ND	ND	ND	ND	3.5
12/15/20	ND	ND	ND	ND	3.64

MKTF-16

Date	B	T	E	X	MTBE
2/5/20	NS - DRY				
9/14/20	NS - SPH				
12/23/20	14700	129	1320	ND	279

MKTF-20

Date	B	T	E	X	MTBE
2/5/20	620	3.9	58	530	5.7
9/15/20	NS - SPH				
12/8/20	NS - SPH				

MKTF-40

Date	B	T	E	X	MTBE
2/28/20	ND	ND	ND	ND	0.76
9/19/20	ND	ND	ND	ND	0.58
12/17/20	ND	ND	ND	ND	1.03

MKTF-39

Date	B	T	E	X	MTBE
2/5/20	9.4	ND	38	ND	ND
9/19/20	18	ND	43	ND	ND
12/16/20	14.4	ND	33.4	ND	ND

MKTF-31

Date	B	T	E	X	MTBE
2/25/20	0.92	ND	ND	ND	180
9/19/20	0.66	ND	ND	ND	190
12/18/20	ND	ND	ND	ND	247

MKTF-44

Date	B	T	E	X	MTBE
3/5/20	ND	ND	ND	ND	ND
9/21/20	ND	ND	ND	ND	ND
12/23/20	ND	ND	ND	ND	ND

MKTF-09

Date	B	T	E	X	MTBE
3/3/20	3300	9.9	190	55	530
9/14/20	NS - SPH				
12/7/20	NS - SPH				

MKTF-04

Date	B	T	E	X	MTBE
3/3/20	800	10	470	560	2100
9/18/20	NS - SPH				
12/3/20	NS - SPH				

MKTF-43

Date	B	T	E	X	MTBE
2/27/20	ND	ND	ND	ND	ND
9/21/20	ND	ND	ND	ND	ND
12/15/20	ND	ND	ND	ND	ND

MKTF-41

Date	B	T	E	X	MTBE
2/27/20	ND	ND	ND	2.8	1.2
9/21/20	ND	ND	0.36	4.3	1
12/15/20	ND	ND	ND	ND	ND

MKTF-32

Date	B	T	E	X	MTBE
2/27/20	ND	ND	ND	ND	900
9/21/20	ND	ND	ND	ND	1100
12/15/20	ND	ND	ND	ND	897

MKTF-33

Date	B	T	E	X	MTBE
2/28/20	82	2.6	ND	15	800
9/14/20	NS - SPH				
12/4/20	NS - SPH				

MKTF-42

Date	B	T	E	X	MTBE
2/27/20	22	0.99	3.7	70	4.2
9/21/20	29	1.1	3.7	80	3.5
12/16/20	14.2	ND	2.44	53.8	2.51

MKTF-34

Date	B	T	E	X	MTBE
2/5/20	ND	ND	ND	ND	ND
2/28/20	ND	ND	ND	ND	ND
9/16/20	ND	ND	ND	ND	ND
12/4/20	NS - SPH				

MKTF-35

Date	B	T	E	X	MTBE
2/6/20	6100	5300	800	1800	320
9/16/20	4000	130	640	910	160
12/4/20	NS - SPH				

MKTF-46

Date	B	T	E	X	MTBE
3/6/20	0.4	ND	ND	ND	ND
9/17/20	ND	ND	ND	ND	ND
12/16/20	ND	ND	ND	ND	ND

MKTF-21

Date	B	T	E	X	MTBE
2/5/20	58	ND	2.6	ND	50
9/15/20	NS - SPH				
12/4/20	NS - SPH				

MKTF-18

Date	B	T	E	X	MTBE
2/6/20	190	24	ND	2.6	110
9/19/20	NS - SPH				
12/16/20	371	ND	ND	ND	96.7

MKTF-47

Date	B	T	E	X	MTBE
3/6/20	ND	ND	ND	ND	ND
9/10/20	NS - SPH				
12/14/20	NS - SPH				

MKTF-38

Date	B	T	E	X	MTBE
3/5/20	ND	1300	ND	ND	ND
9/19/20	ND	ND	ND	ND	ND
12/4/20	NS - SPH				

MKTF-36

Date	B	T	E	X	MTBE
2/3/20	NS - SPH				
9/18/20	9700	22000	2100	4400	940
12/4/20	NS - SPH				

MKTF-37

Date	B	T	E	X	MTBE
2/3/20	NS - SPH				
9/17/20	1300	26	81	420	33
12/4/20	NS - SPH				

EXPLANATION

- CHINLE/ALLUVIUM INTERFACE WELL
- MONITORING WELL - NOT SAMPLED IN 2020 DUE TO PRESENCE OF SPH

NOTES:

B - BENZENE
E - ETHYLBENZENE
T - TOLUENE
X - XYLENE
MTBE - METHYL TERT BUTYL ETHER
ND - NON-DETECT
NS - NOT SAMPLED FOR BTEX OR MTBE
RW - RECOVERY WELL
SPH - SEPARATE PHASE HYDROCARBON
- ALL RESULTS ARE REPORTED IN MICROGRAMS PER LITER
- DETECTS EXCEEDING THE STANDARD ARE **BOLD AND HIGHLIGHTED**

EXCEEDANCES	
ANALYTE	STANDARD
B	0.46 µg/L
T	1000 µg/L
E	1.5 µg/L
X	190 µg/L
MTBE	14 µg/L

*STANDARDS FROM NMED CLEANUP LEVELS, NMAC 20.6.2.3103 AND USEPA RSL TAP WATER.

N

0 120 240'

Trihydro CORPORATION
1252 Commerce Drive
Laramie, WY 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

FIGURE 4-3

MARKETING TANK FARM MONITORING WELLS BTEX AND MTBE

WESTERN REFINING SOUTHWEST LLC MARATHON GALLUP REFINERY GALLUP, NEW MEXICO

Drawn By: KEJ	Checked By: MS	Scale: 1" = 120'	Date: 8/20/21	File: 4-3_MKTF_MW_Fig4-3_Dsize

STP1-NW					
Date	B	T	E	X	MTBE
3/4/20	ND	ND	ND	ND	ND
9/22/20	NS - H2S				
12/24/20	ND	ND	ND	ND	ND

STP1-SW					
Date	B	T	E	X	MTBE
NS - H2S					

FIGURE EXTENT

EXCEEDANCES	
ANALYTE	STANDARD
B	0.46 µg/L
T	1000 µg/L
E	1.5 µg/L
X	190 µg/L
MTBE	14 µg/L

*STANDARDS FROM NMED CLEANUP LEVELS, NMAC 20.6.2.3103 AND USEPA RSL TAP WATER.

NAPIS-3					
Date	B	T	E	X	MTBE
3/4/20	4.7	ND	**3**	ND	**48**
9/22/20	1.4	ND	**4.6**	ND	**59**
12/17/20	**42.8**	ND	**4.13**	ND	**41.9**

NAPIS-2					
Date	B	T	E	X	MTBE
3/4/20	**330**	0.6	**40**	2.1	**69**
9/22/20	**290**	0.52	**140**	1.5	**57**
12/17/20	**204**	ND	**50.4**	ND	**73.6**

LDU - EAST					
Date	B	T	E	X	MTBE
3/10/20	**620**	38	**50**	57	ND
9/22/20	NS - H2S				
12/17/20	**285**	52.1	**56**	93.2	3.5

LDU - WEST					
Date	B	T	E	X	MTBE
3/10/20	**150**	41	**14**	44	2.1
9/22/20	NS - H2S				
12/17/20	**66.5**	5.91	**9.37**	16.1	1.74

KA-3					
Date	B	T	E	X	MTBE
3/4/20	**98**	ND	**2.2**	ND	**64**
9/22/20	**310**	ND	**27**	0.64	**59**
12/17/20	ND	ND	**3.03**	ND	**43.6**

OAPIS-1					
Date	B	T	E	X	MTBE
3/4/20	**46**	0.39	**5.2**	1.7	**270**
9/22/20	**84**	0.55	**11**	2.9	**250**
12/17/20	**53.8**	ND	**5.49**	ND	**260**

STP1-NW
STP1-SW
NAPIS-3
KA-3
NAPIS-2
NAPIS-1
OAPIS-1

Maxar, Microsoft

EXPLANATION

CHINLE/ALLUVIUM INTERFACE WELL

MONITORING WELL - NOT SAMPLED IN 2020 DUE TO PRESENCE OF SPH

NOTES:

B - BENZENE
E - ETHYLBENZENE
T - TOLUENE
X - XYLENE
MTBE - METHYL TERT BUTYL ETHER
ND - NON-DETECT
NS - NOT SAMPLED FOR BTEX OR MTBE
SPH - SEPARATE PHASE HYDROCARBON
H2S - HYDROGEN SULFIDE
- ALL RESULTS ARE REPORTED IN MICROGRAMS PER LITER
- DETECTS EXCEEDING THE STANDARD ARE **BOLD AND HIGHLIGHTED**

N

0 80'

Trihydro CORPORATION
1252 Commerce Drive
Laramie, WY 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

FIGURE 4-4
WASTEWATER TREATMENT AREA
MONITORING WELLS
BTEX AND MTBE

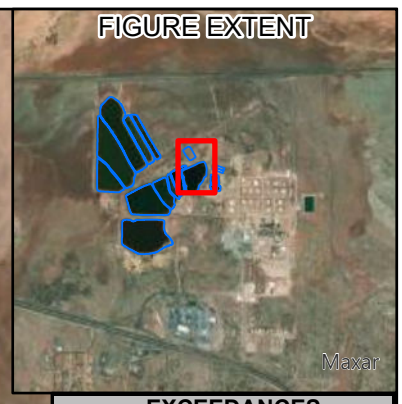
WESTERN REFINING SOUTHWEST LLC
MARATHON GALLUP REFINERY
GALLUP, NEW MEXICO

Drawn By: KEJ	Checked By: MS	Scale: 1" = 80'	Date: 8/20/21	File: 4-4_WastewaterTreatmentMW_Fig4-4

\\TRIHYDRO.COM\CLIENTS\ITON\MARATHON\GIS\PROJECTS\GALLUP\REFINERY\GROUNDWATER\REPORTING\ANNUAL REPORTS\2020_ANNUALRPT_GALLUP\2020_ANNUALRPT_GALLUP.APRX

OW-59					
Date	B	T	E	X	MTBE
3/3/20	ND	ND	ND	ND	11
9/19/20	ND	ND	ND	ND	12
12/23/20	ND	ND	ND	ND	9.99

OW-60					
Date	B	T	E	X	MTBE
3/3/20	ND	ND	ND	ND	ND
9/21/20	ND	ND	ND	ND	ND
12/11/20	ND	ND	ND	ND	ND



EXCEEDANCES	
ANALYTE	STANDARD
B	0.46 µg/L
T	1000 µg/L
E	1.5 µg/L
X	190 µg/L
MTBE	14 µg/L

*STANDARDS FROM NMED CLEANUP LEVELS, NMAC 20.6.2.3103 AND USEPA RSL TAP WATER.

OW-59

OW-60

GWM-3					
Date	B	T	E	X	MTBE
3/3/20	NS - SPH				
9/15/20	NS - DRY				
12/7/20	NS - DRY				

GWM-3

GWM-1

GWM-2

GWM-2					
Date	B	T	E	X	MTBE
3/3/20	NS - SPH				
9/15/20	NS - DRY				
12/7/20	NS - DRY				

Maxar, Microsoft

EXPLANATION

- CHINLE/ALLUVIUM INTERFACE WELL
- MONITORING WELL - NOT SAMPLED IN 2020 DUE TO PRESENCE OF SPH

NOTES:

B - BENZENE
E - ETHYLBENZENE
T - TOLUENE
X - XYLENE
MTBE - METHYL TERT BUTYL ETHER
ND - NON-DETECT
NS - NOT SAMPLED FOR BTEX OR MTBE
SWMU - SOILD WASTE MANAGEMENT UNIT
SPH - SEPARATE PHASE HYDROCARBON
- ALL RESULTS ARE REPORTED IN MICROGRAMS PER LITER
- DETECTS EXCEEDING THE STANDARDS ARE **BOLD AND HIGHLIGHTED**

N

0 100'

Trihydro CORPORATION
1252 Commerce Drive
Laramie, WY 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

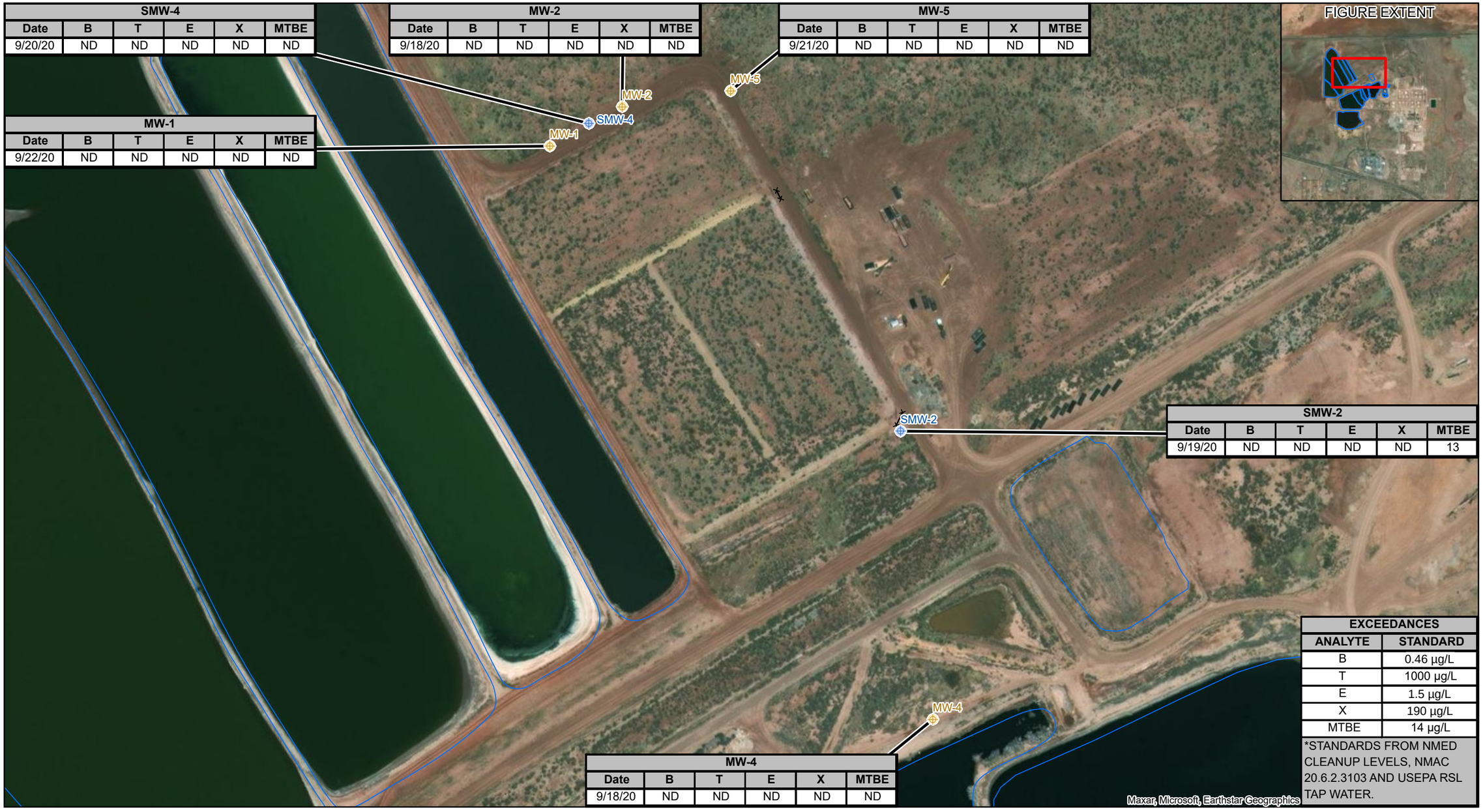
FIGURE 4-5

SWMU-1 MONITORING WELLS BTEX AND MTBE

WESTERN REFINING SOUTHWEST, LLC MARATHON GALLUP REFINERY GALLUP NEW MEXICO

Drawn By: KEJ	Checked By: MS	Scale: 1" = 100'	Date: 8/20/21	File: 4-5_SWMU1_MW_Fig4-5

\\TRIHYDRO.COM\CLIENTS\ITON\MARATHON\GIS\PROJECTS\GALLUP\REFINERY\GROUNDWATER\REPORTING\ANNUAL REPORTS\2020 ANNUAL\RPT GALLUP2020 ANNUALRPT GALLUP.APRX



EXPLANATION

- SONSELA WELLS
- CHINLE/ALLUVIUM INTERFACE WELL

NOTES:

B - BENZENE
E - ETHYLBENZENE
T - TOLUENE
X - XYLENE
MTBE - METHYL TERT BUTYL ETHER
ND - NON-DETECT

LTU - LAND TREATMENT UNIT
- ALL RESULTS ARE REPORTED IN MICROGRAMS PER LITER
- DETECTS EXCEEDING THE STANDARD ARE **BOLD AND HIGHLIGHTED**

N

0 180'

Trihydro CORPORATION
1252 Commerce Drive
Laramie, WY 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

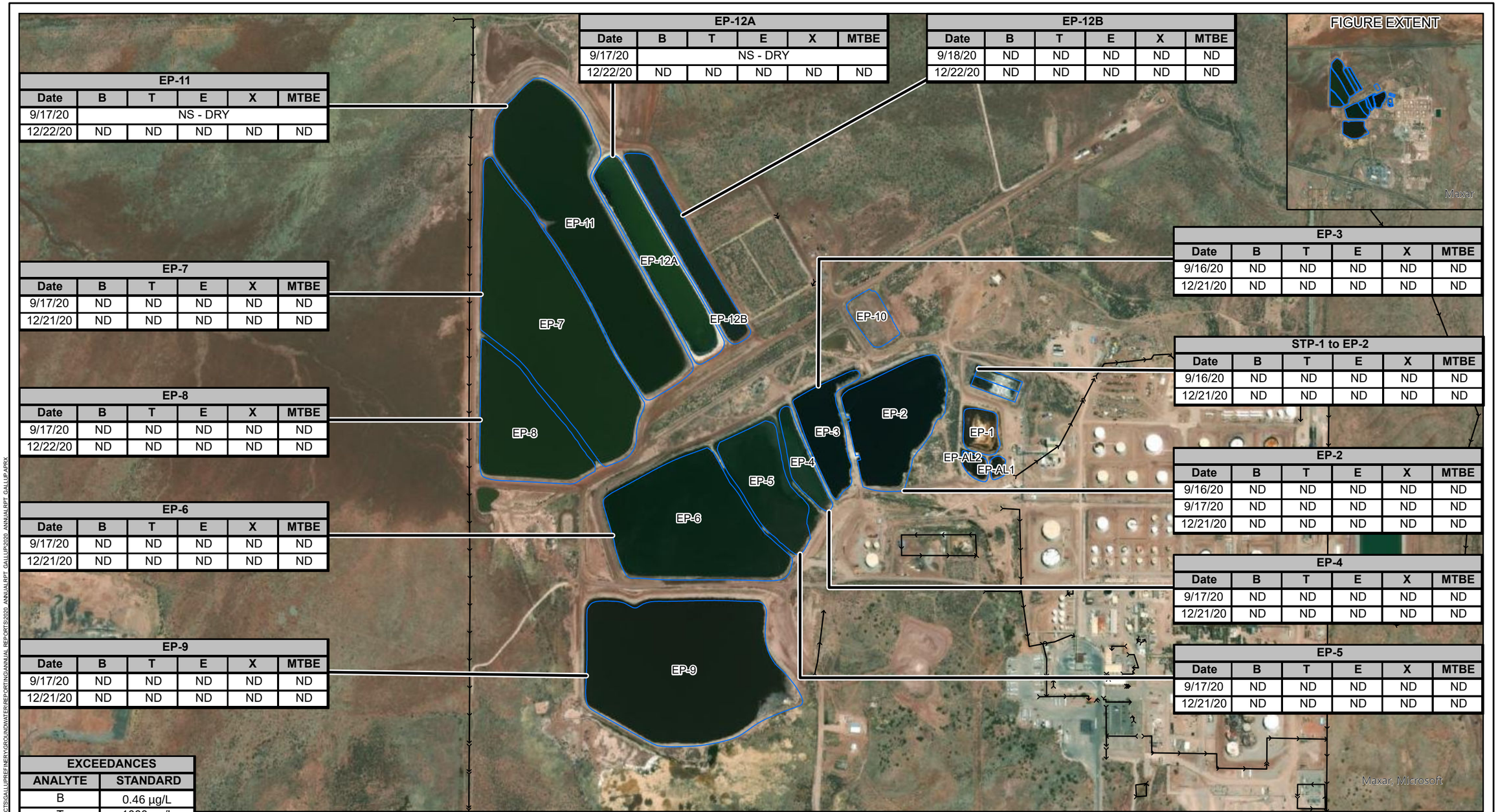
FIGURE 4-6

**LTU MONITORING WELLS
BTEX AND MTBE**

**WESTERN REFINING SOUTHWEST LLC
MARATHON GALLUP REFINERY
GALLUP, NEW MEXICO**

Drawn By: KEJ	Checked By: MS	Scale: 1" = 180'	Date: 8/20/21	File: 4-6_LTUMW_Fig4-6

I:\TRIHYDRO.COM\CLIENTS\T\TONMARATHON\GIS\PROJECTS\GALLUPREFINERY\GROUNDWATER\REPORTING\ANNUAL REPORTS\2020 ANNUAL\RPT GALLUP\2020 ANNUALRPT GALLUP.APRX



EP-11					
Date	B	T	E	X	MTBE
9/17/20	NS - DRY				
12/22/20	ND	ND	ND	ND	ND

EP-12A					
Date	B	T	E	X	MTBE
9/17/20	NS - DRY				
12/22/20	ND	ND	ND	ND	ND

EP-12B					
Date	B	T	E	X	MTBE
9/18/20	ND	ND	ND	ND	ND
12/22/20	ND	ND	ND	ND	ND

EP-7					
Date	B	T	E	X	MTBE
9/17/20	ND	ND	ND	ND	ND
12/21/20	ND	ND	ND	ND	ND

EP-3					
Date	B	T	E	X	MTBE
9/16/20	ND	ND	ND	ND	ND
12/21/20	ND	ND	ND	ND	ND

STP-1 to EP-2					
Date	B	T	E	X	MTBE
9/16/20	ND	ND	ND	ND	ND
12/21/20	ND	ND	ND	ND	ND

EP-8					
Date	B	T	E	X	MTBE
9/17/20	ND	ND	ND	ND	ND
12/22/20	ND	ND	ND	ND	ND

EP-2					
Date	B	T	E	X	MTBE
9/16/20	ND	ND	ND	ND	ND
9/17/20	ND	ND	ND	ND	ND
12/21/20	ND	ND	ND	ND	ND

EP-6					
Date	B	T	E	X	MTBE
9/17/20	ND	ND	ND	ND	ND
12/21/20	ND	ND	ND	ND	ND

EP-4					
Date	B	T	E	X	MTBE
9/17/20	ND	ND	ND	ND	ND
12/21/20	ND	ND	ND	ND	ND

EP-9					
Date	B	T	E	X	MTBE
9/17/20	ND	ND	ND	ND	ND
12/21/20	ND	ND	ND	ND	ND

EP-5					
Date	B	T	E	X	MTBE
9/17/20	ND	ND	ND	ND	ND
12/21/20	ND	ND	ND	ND	ND

EXCEEDANCES	
ANALYTE	STANDARD
B	0.46 µg/L
T	1000 µg/L
E	1.5 µg/L
X	190 µg/L
MTBE	14 µg/L

*STANDARDS FROM NMED CLEANUP LEVELS, NMAC 20.6.2.3103 AND USEPA RSL TAP WATER.

NOTES:

B - BENZENE
E - ETHYLBENZENE
T - TOLUENE
X - XYLENE
MTBE - METHYL TERT BUTYL ETHER
ND - NON-DETECT

- ALL RESULTS ARE REPORTED IN MICROGRAMS PER LITER
- DETECTS EXCEEDING THE STANDARD ARE **BOLD AND HIGHLIGHTED**

N

0 600'

Trihydro CORPORATION
1252 Commerce Drive
Laramie, WY 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

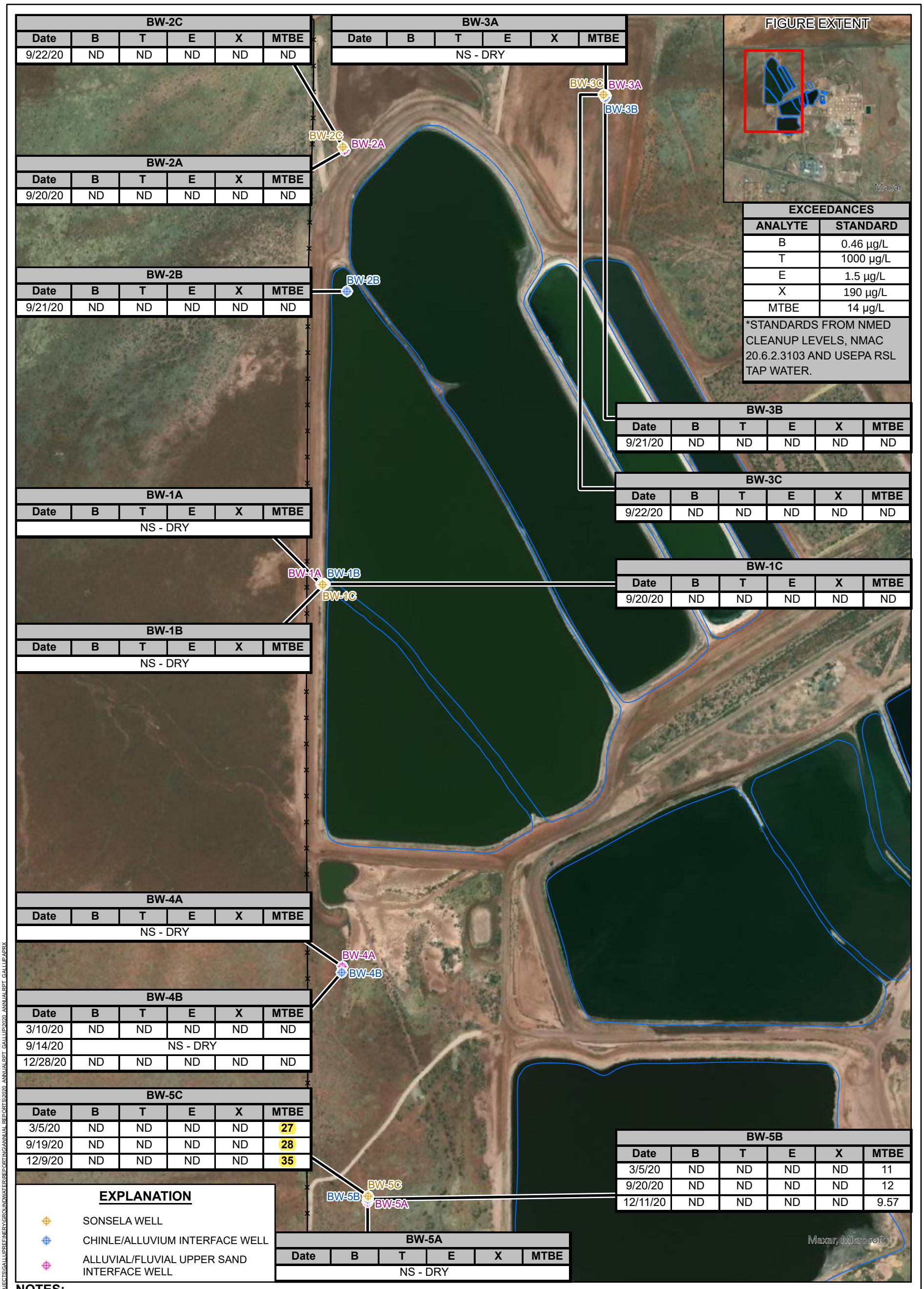
FIGURE 4-7

EVAPORATION POND SAMPLES BTEX AND MTBE

WESTERN REFINING SOUTHWEST LLC MARATHON GALLUP REFINERY GALLUP, NEW MEXICO

Drawn By: KEJ	Checked By: MS	Scale: 1" = 600'	Date: 8/20/21	File: 4-7_EvapPondMW_Fig4-7

\\TRIHYDRO.COM\CLIENTS\ON\MARATHON\GIS\PROJECTS\GALLUP\REFINERY\GROUNDWATER\REPORTING\ANNUAL REPORTS\2020_ANNUAL\RPT_GALLUP_APRX



BW-2C					
Date	B	T	E	X	MTBE
9/22/20	ND	ND	ND	ND	ND

BW-2A					
Date	B	T	E	X	MTBE
9/20/20	ND	ND	ND	ND	ND

BW-2B					
Date	B	T	E	X	MTBE
9/21/20	ND	ND	ND	ND	ND

BW-1A					
Date	B	T	E	X	MTBE
NS - DRY					

BW-1B					
Date	B	T	E	X	MTBE
NS - DRY					

BW-4A					
Date	B	T	E	X	MTBE
NS - DRY					

BW-4B					
Date	B	T	E	X	MTBE
3/10/20	ND	ND	ND	ND	ND
9/14/20	NS - DRY				
12/28/20	ND	ND	ND	ND	ND

BW-5C					
Date	B	T	E	X	MTBE
3/5/20	ND	ND	ND	ND	27
9/19/20	ND	ND	ND	ND	28
12/9/20	ND	ND	ND	ND	35

BW-5A					
Date	B	T	E	X	MTBE
NS - DRY					

BW-3A					
Date	B	T	E	X	MTBE
NS - DRY					

BW-3B					
Date	B	T	E	X	MTBE
9/21/20	ND	ND	ND	ND	ND

BW-3C					
Date	B	T	E	X	MTBE
9/22/20	ND	ND	ND	ND	ND

BW-1C					
Date	B	T	E	X	MTBE
9/20/20	ND	ND	ND	ND	ND

BW-5B					
Date	B	T	E	X	MTBE
3/5/20	ND	ND	ND	ND	11
9/20/20	ND	ND	ND	ND	12
12/11/20	ND	ND	ND	ND	9.57

EXCEEDANCES	
ANALYTE	STANDARD
B	0.46 µg/L
T	1000 µg/L
E	1.5 µg/L
X	190 µg/L
MTBE	14 µg/L

*STANDARDS FROM NMED CLEANUP LEVELS, NMAC 20.6.2.3103 AND USEPA RSL TAP WATER.

EXPLANATION

- SONSELA WELL
- CHINLE/ALLUVIUM INTERFACE WELL
- ALLUVIAL/FLUVIAL UPPER SAND INTERFACE WELL

NOTES:

B - BENZENE
E - ETHYLBENZENE
T - TOLUENE
X - XYLENE
MTBE - METHYL TERT BUTYL ETHER
ND - NON-DETECT
NS - NOT SAMPLED FOR BTEX OR MTBE
- ALL RESULTS ARE REPORTED IN MICROGRAMS PER LITER
- DETECTS EXCEEDING THE STANDARD ARE **BOLD AND HIGHLIGHTED**

N

0 320'

Trihydro CORPORATION
1252 Commerce Drive
Laramie, WY 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

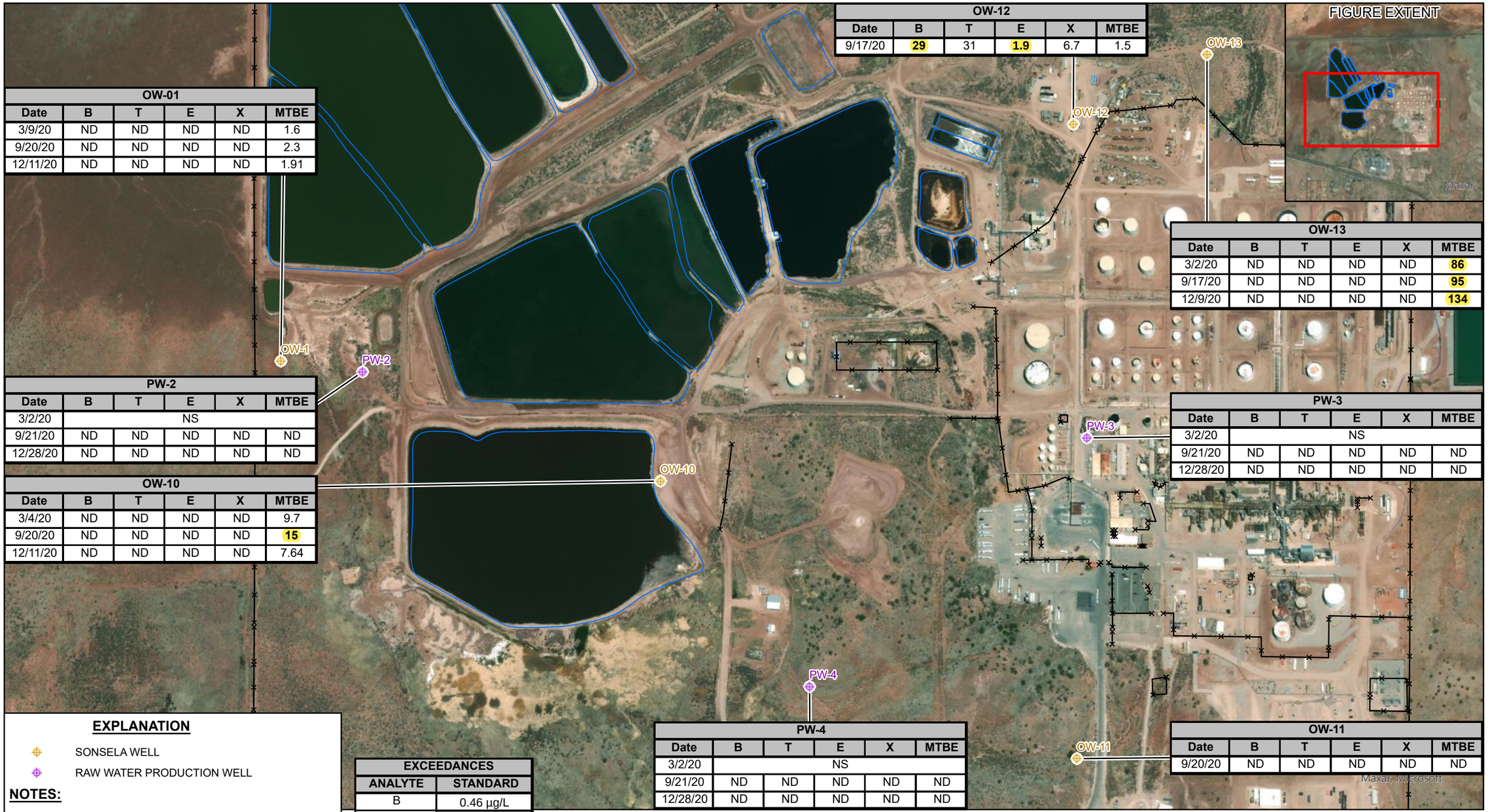
FIGURE 4-8

WESTERN BOUNDARY MONITORING WELLS BTEX AND MTBE

WESTERN REFINING SOUTHWEST LLC MARATHON GALLUP REFINERY GALLUP, NEW MEXICO

Drawn By: KEJ	Checked By: MS	Scale: 1" = 320'	Date: 8/20/21	File: 4-8_WesternBoundaryMW_Fig4-8

\\TRIHYDRO.COM\CLIENTS\ITON\MARATHON\GIS\PROJECTS\GALLUP\REFINERY\GROUNDWATER\REPORTING\ANNUAL REPORTS\2020 ANNUAL RPT GALLUP2020 ANNUALRPT GALLUP.APRX



OW-01					
Date	B	T	E	X	MTBE
3/9/20	ND	ND	ND	ND	1.6
9/20/20	ND	ND	ND	ND	2.3
12/11/20	ND	ND	ND	ND	1.91

PW-2					
Date	B	T	E	X	MTBE
3/2/20	NS				
9/21/20	ND	ND	ND	ND	ND
12/28/20	ND	ND	ND	ND	ND

OW-10					
Date	B	T	E	X	MTBE
3/4/20	ND	ND	ND	ND	9.7
9/20/20	ND	ND	ND	ND	**15**
12/11/20	ND	ND	ND	ND	7.64

OW-12					
Date	B	T	E	X	MTBE
9/17/20	**29**	31	**1.9**	6.7	1.5

OW-13					
Date	B	T	E	X	MTBE
3/2/20	ND	ND	ND	ND	**86**
9/17/20	ND	ND	ND	ND	**95**
12/9/20	ND	ND	ND	ND	**134**

PW-3					
Date	B	T	E	X	MTBE
3/2/20	NS				
9/21/20	ND	ND	ND	ND	ND
12/28/20	ND	ND	ND	ND	ND

PW-4					
Date	B	T	E	X	MTBE
3/2/20	NS				
9/21/20	ND	ND	ND	ND	ND
12/28/20	ND	ND	ND	ND	ND

OW-11					
Date	B	T	E	X	MTBE
9/20/20	ND	ND	ND	ND	ND

EXPLANATION

- SONSELA WELL
- RAW WATER PRODUCTION WELL

NOTES:

B - BENZENE
E - ETHYLBENZENE
T - TOLUENE
X - XYLENE
MTBE - METHYL TERT BUTYL ETHER
ND - NON-DETECT
- ALL RESULTS ARE REPORTED IN MICROGRAMS PER LITER
- DETECTS EXCEEDING THE STANDARD ARE **BOLD AND HIGHLIGHTED**

EXCEEDANCES	
ANALYTE	STANDARD
B	0.46 µg/L
T	1000 µg/L
E	1.5 µg/L
X	190 µg/L
MTBE	14 µg/L

*STANDARDS FROM NMED CLEANUP LEVELS, NMAC 20.6.2.3103 AND USEPA RSL TAP WATER.

N

0 450'

Trihydro CORPORATION
1252 Commerce Drive
Laramie, WY 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

FIGURE 4-9

DEEP MONITORING WELLS BTEX AND MTBE

WESTERN REFINING SOUTHWEST LLC MARATHON GALLUP REFINERY GALLUP, NEW MEXICO

Drawn By: KEJ	Checked By: MS	Scale: 1" = 450'	Date: 8/20/21	File: 4-9_DeepMW_Fig4-9

\\TRIHYDRO.COM\CLIENTS\T\TONMARATHON\GIS\PROJECTS\GALLUP\REF\NEW\GROUNDWATER\REPORTING\ANNUAL REPORTS\2020_ANNUAL RPT_GALLUP\2020_ANNUAL RPT_GALLUP.APRX

Appendices A through D (Please see attached CD - Behind Attachment B Divider)

Appendix A – 2020 Field Logs

Appendix B – Historical Fluid Level Measurements

Appendix C – 2020 Laboratory Analytical Reports

Appendix D – 2020 Data Validation Reports

Appendix A – 2020 Field Logs

Appendix A-1. 1st Quarter Field Logs

Appendix A-2. 2nd Quarter Field Logs

Appendix A-3. 3rd Quarter Field Logs

Appendix A-4. 4th Quarter Field Logs

Appendix B – Historical Fluid Level Measurements

Appendix B-1. Fluid Level Monitoring (2014-2020)

Appendix B-2. Hydrographs



Appendix C – 2020 Laboratory Analytical Reports

Appendix C-1. 1st Quarter Analytical Reports

Appendix C-2. 3rd Quarter Analytical Reports

Appendix C-3. 4th Quarter Analytical Reports

Appendix D – 2020 Data Validation Reports

Appendix D-1. 1st Quarter Data Validation Reports

Appendix D-2. 3rd Quarter Data Validation Reports

Appendix D-3. 4th Quarter Data Validation Reports

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 89734

CONDITIONS

Operator: Western Refining Southwest LLC 539 South Main Street Findlay, OH 45840	OGRID: 267595
	Action Number: 89734
	Action Type: [UF-DP] Discharge Permit (DISCHARGE PERMIT)

CONDITIONS

Created By	Condition	Condition Date
jburdine	Accepted for Record Retention Purposes-Only	11/23/2022