Western Refining Southwest LLC
A subsidiary of Marathon Petroleum Corporation

I-40 Exit 39
Jamestown, NM 87347

September 3, 2021

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

RE: 2020 Annual Groundwater Monitoring Report
Western Refining Southwest LLC, D/B/A Marathon Gallup Refinery
(dba Western Refining Southwest LLC)
EPA ID# NMD000333211

Dear Mr. Pierard,

Please find enclosed the 2020 Annual Groundwater Monitoring Report for the Western Refining Southwest LLC, D/B/A Marathon Gallup Refinery. If you have any questions or comments regarding the information contained herein, please do not hesitate to contact John Moore at (505) 879-7643.

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, D/B/A Marathon Gallup Refinery

Digitally signed by John Moore
DN: cn=John Moore, c=US, o=MarathonPetroleum, ou=ES&S, email=jmoore5@marathonpetroleum.com
Date: 2021.09.01 15:09:02 -06'00'

For Ruth A. Cade

Ruth Cade
Vice-President

Enclosure

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

WESTERN REFINING SOUTHWEST LLC

D/B/A MARATHON GALLUP REFINERY

2020 ANNUAL GROUNDWATER MONITORING REPORT

SEPTEMBER 1, 2021

Executive Summary

Analytical groundwater monitoring activities were completed at the Western Refining Southwest LLC, (doing business as 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 groundwater monitoring wells screened in the Alluvial/Fluvial aquifer are consistently dry. BW-2A had water detected approximately 32.93 ft below measuring point (bmp) during the third quarter of 2020.
- The groundwater monitoring wells screened in the Chinle/Alluvium aquifer ranged from 4.59 ft bmp (MKTF-28) to 39.86 ft bmp (BW-4B).
- The groundwater monitoring wells screened in the Sonsela aquifer ranged from 1.45 ft bmp (OW-01) to 46.45 ft bmp (OW-12). OW-01 and OW-10 are on the northwest end of the property and considered artesian.
- Measurable 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. MKTF-45 had the thickest SPH in 2020 during the first quarter at 9.02 ft. 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 (Figure ES-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.

- 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.
- 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). 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 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 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.

Released to Imaging: 11/22/2022 10:55:50 AM

- 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 results.
- 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.
- 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. 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 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: 9/1/2021 3:58:35 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 16
3.1 Potentiometric Surface 16
3.2 SPH Detections 16
4.0 Sampling Results 18
4.1 Eastern Boundary Wells Analytical Results 18
4.2 Tank Farm Wells Analytical Results 19
4.3 Marketing Tank Farm Wells Analytical Results 19
4.4 Wastewater Treatment Area Analytical Results 20
4.5 SWMU 1 Area Analytical Results 20
4.6 LTU Area Analytical Results 21
4.7 Evaporation Ponds Analytical Results 21
4.8 Western Boundary Wells Analytical Results 21
4.9 Deep Monitoring Wells Analytical Results 22
4.10 QA/QC Analytical Results 23
4.10.1 Rejected Data 23

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

4.10.2 Field Blanks 23
4.10.3 Trip Blanks 23
4.10.4 Equipment Blanks 24
4.10.5 Field Duplicates 24
5.0 Remediation Activities 25
6.0 Conclusions 26
7.0 References 29
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: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

List of Tables

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

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

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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, 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

Released to Imaging: 11/22/2022 10:55:50 AM

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

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	below measuring point
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
NMED	New Mexico Environment Department
ORO	oil range organics
QA/QC	quality assurance/quality control
RCRA	Resource Conservation and Recovery Act
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
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 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, 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

Released to Imaging: 11/22/2022 10:55:50 AM

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, 13 monitoring wells in the Sonsela formation, and 5 monitoring wells in the Alluvial formation. 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 20.6.2.3103
- EPA Drinking Water Maximum Contaminant Levels
- NMED Tap Water Screening Levels
- 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. 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: 11/22/2022 10:55:50 AM

3.0 Fluid Level Results

Fluid levels are measured monthly, quarterly, semiannually, and annually depending on the monitoring well. 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 ft below measuring point (bmp). Groundwater elevation was approximately 6841.76 ft above mean sea level (msl). The groundwater elevation of BW-2A has stayed consistent with previous gauging events. Because water was only detected in one well during 2020, groundwater gradient could not be calculated.

The Chinle/Alluvium aquifer includes monitoring wells across the Refinery (Figure 3-2). A total of 90 monitoring wells were gauged during the third quarter of 2020. The depth to groundwater ranged from 4.59 ft bmp (MKTF-28) to 39.86 ft bmp (BW-4B). Groundwater elevations ranged from 6833.37 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 depth to groundwater ranged from 1.45 ft bmp (OW-01) to 46.45 ft bmp (OW-12). OW-01 and OW-10 are on the west end of the property and are 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 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. Monitoring wells with SPH and calculated SPH thicknesses are summarized on 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.

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 LIF report which will be submitted to NMED by October 31, 2021.

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.

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.

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. 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.

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.

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 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. 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.

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 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.

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.

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. Non-detected sampling results with reporting limits greater than the applicable screening levels are noted with italics in the applicable tables. BTEX and MTBE were reported as not detected during the two semiannual monitoring events in 2020. This is generally consistent with historic 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.

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.

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, 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.

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. 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 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. 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: 11/22/2022 10:55:50 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. In addition, free phase SPH is recovered on-site from monitoring wells with SPH greater than 0.5 inches.

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 groundwater monitoring wells screened in the Alluvial/Fluvial aquifer are consistently dry. BW-2A had water detected approximately 32.93 ft bmp during the third quarter of 2020.
- The groundwater monitoring wells screened in the Chinle/Alluvium aquifer ranged from 4.59 ft bmp (MKTF-28) to 39.86 ft bmp (BW-4B).
- The groundwater monitoring wells screened in the Sonsela aquifer ranged from 1.45 ft bmp (OW-01) to 46.45 ft bmp (OW-12). OW-01 and OW-10 are on the west end of the property and considered artesian.
- Measurable SPH was detected in 39 monitoring wells during the third quarter of 2020 (Table 3-1 and Figure 3-4). Fluid levels and SPH thicknesses are presented in 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.
- 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.
- 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). 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 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 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 results.
- 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.
- 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. 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 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

Released to Imaging: 11/22/2022 10:55:50 AM

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

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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.

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.

Released to Imaging: 11/22/2022 10:55:50 AM

Tables

TABLE ES-1. FLUID LEVEL MONITORING (2020)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location	Date Measured	Depth to Product (ft-bmp)	Depth to Water (ft-bmp)	Product Thickness (ft)	Water Elevation (ft-msl)
Pot Surface - Alluvial					
BW-1A	9/14/2020	ND	Dry	NA	Dry
BW-2A	9/14/2020	ND	32.93	NA	6841.76
BW-3A	9/14/2020	ND	Dry	NA	Dry
BW-4A	3/09/2020	ND	38.34	NA	6834.84
BW-4A	6/30/2020	ND	Dry	NA	Dry
BW-4A	9/14/2020	ND	Dry	NA	Dry
BW-4A	12/07/2020	ND	Dry	NA	Dry
BW-5A	3/05/2020	ND	Dry	NA	Dry
BW-5A	6/26/2020	ND	23.21	NA	6853.79
BW-5A	9/14/2020	ND	Dry	NA	Dry
BW-5A	12/07/2020	ND	23.27	NA	6853.73
Pot Surface - Chinle					
BW-1B	9/14/2020	ND	Dry	NA	Dry
BW-2B	9/14/2020	ND	28.79	NA	6845.71
BW-3B	9/14/2020	ND	34.24	NA	6844.35
BW-4B	3/09/2020	ND	40.35	NA	6832.88
BW-4B	6/26/2020	NA	NA	NA	NA
BW-4B	6/30/2020	ND	44.75	NA	6828.48
BW-4B	9/14/2020	ND	39.86	NA	6833.37
BW-4B	12/07/2020	ND	35.86	NA	6837.37
BW-5B	3/05/2020	ND	9.94	NA	6866.88
BW-5B	6/26/2020	ND	10.21	NA	6866.61
BW-5B	9/14/2020	ND	10.61	NA	6866.21
BW-5B	12/07/2020	ND	10.53	NA	6866.29
GWM-1	3/03/2020	21.40	21.48	0.08	6891.13
GWM-1	7/01/2020	20.82	20.37	-0.45	6892.24
GWM-1	9/15/2020	20.73	21.40	0.67	6891.21
GWM-1	11/09/2020	20.88	21.72	0.84	6890.89
GWM-1	12/07/2020	20.91	21.85	0.94	6890.76
GWM-2	3/03/2020	ND	Dry	NA	Dry
GWM-2	7/01/2020	ND	Dry	NA	Dry
GWM-2	9/15/2020	ND	Dry	NA	Dry
GWM-2	11/10/2020	ND	Dry	NA	Dry
GWM-2	12/07/2020	ND	Dry	NA	Dry
GWM-3	3/03/2020	ND	Dry	NA	Dry
GWM-3	7/01/2020	ND	Dry	NA	Dry
GWM-3	9/15/2020	ND	Dry	NA	Dry
GWM-3	10/11/2020	ND	Dry	NA	Dry
GWM-3	12/07/2020	ND	Dry	NA	Dry
KA-3	3/03/2020	ND	9.30	NA	6903.22
KA-3	7/01/2020	ND	8.75	NA	6903.77

TABLE ES-1. FLUID LEVEL MONITORING (2020)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location	Date Measured	Depth to Product (ft-bmp)	Depth to Water (ft-bmp)	Product Thickness (ft)	Water Elevation (ft-msl)
Pot Surface - Chinle					
KA-3	9/15/2020	ND	8.08	NA	6904.44
KA-3	12/07/2020	ND	9.56	NA	6902.96
MKTF-01	2/24/2020	4.87	5.16	0.29	6915.51
MKTF-01	6/26/2020	5.50	5.71	0.21	6914.96
MKTF-01	9/15/2020	5.61	5.62	0.01	6915.05
MKTF-01	11/10/2020	5.61	5.89	0.28	6914.78
MKTF-01	12/03/2020	5.74	6.02	0.28	6914.65
MKTF-02	2/24/2020	ND	6.52	NA	6910.93
MKTF-02	6/26/2020	ND	7.70	NA	6909.75
MKTF-02	9/15/2020	ND	7.88	NA	6909.57
MKTF-02	11/10/2020	ND	7.43	NA	6910.02
MKTF-02	12/03/2020	ND	7.72	NA	6909.73
MKTF-03	3/05/2020	6.47	7.84	1.37	6923.85
MKTF-03	6/26/2020	7.36	8.63	1.27	6923.06
MKTF-03	9/15/2020	7.08	7.09	0.01	6924.60
MKTF-03	11/10/2020	7.13	8.43	1.30	6923.26
MKTF-03	12/03/2020	7.46	8.62	1.16	6923.07
MKTF-04	3/02/2020	ND	8.47	NA	6925.10
MKTF-04	6/26/2020	ND	9.75	NA	6923.82
MKTF-04	9/15/2020	9.39	9.40	0.01	6924.17
MKTF-04	11/10/2020	ND	9.20	NA	6924.37
MKTF-04	12/03/2020	9.70	9.71	0.01	6923.86
MKTF-05	3/05/2020	13.58	13.72	0.14	6928.50
MKTF-05	6/25/2020	14.06	14.80	0.74	6927.42
MKTF-05	9/15/2020	13.65	14.68	1.03	6927.54
MKTF-05	11/10/2020	14.02	14.90	0.88	6927.32
MKTF-05	12/03/2020	14.12	14.93	0.81	6927.29
MKTF-06	3/05/2020	16.89	18.60	1.71	6928.21
MKTF-06	6/25/2020	14.05	18.90	4.85	6927.91
MKTF-06	9/15/2020	16.78	18.71	1.93	6928.10
MKTF-06	11/10/2020	17.20	18.59	1.39	6928.22
MKTF-06	12/03/2020	17.38	18.49	1.11	6928.32
MKTF-07	3/05/2020	12.50	13.72	1.22	6933.46
MKTF-07	6/25/2020	12.23	13.76	1.53	6933.42
MKTF-07	9/18/2020	11.42	13.77	2.35	6933.41
MKTF-07	11/10/2020	12.56	13.76	1.20	6933.42
MKTF-07	12/03/2020	12.93	13.80	0.87	6933.38
MKTF-08	3/05/2020	14.03	14.37	0.34	6932.72
MKTF-08	6/25/2020	14.00	14.40	0.40	6932.69
MKTF-08	9/18/2020	13.76	14.15	0.39	6932.94
MKTF-08	11/10/2020	14.23	14.69	0.46	6932.40

TABLE ES-1. FLUID LEVEL MONITORING (2020)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location	Date Measured	Depth to Product (ft-bmp)	Depth to Water (ft-bmp)	Product Thickness (ft)	Water Elevation (ft-msl)
Pot Surface - Chinle					
MKTF-08	12/03/2020	14.36	14.76	0.40	6932.33
MKTF-09	3/02/2020	ND	14.23	NA	6932.27
MKTF-09	6/25/2020	ND	14.55	NA	6931.95
MKTF-09	9/18/2020	14.19	14.20	0.01	6932.30
MKTF-09	11/10/2020	14.61	14.62	0.01	6931.88
MKTF-09	12/03/2020	14.75	14.76	0.01	6931.74
MKTF-10	3/02/2020	ND	7.67	NA	6929.49
MKTF-10	6/25/2020	ND	7.07	NA	6930.09
MKTF-10	9/18/2020	7.52	7.53	0.01	6929.63
MKTF-10	11/10/2020	ND	7.79	NA	6929.37
MKTF-10	12/03/2020	ND	7.80	NA	6929.36
MKTF-11	3/02/2020	ND	7.89	NA	6923.45
MKTF-11	6/26/2020	7.67	7.68	0.01	6923.66
MKTF-11	9/18/2020	7.59	7.60	0.01	6923.74
MKTF-11	11/10/2020	ND	7.61	NA	6923.73
MKTF-11	12/03/2020	7.89	7.91	0.02	6923.43
MKTF-12	2/27/2020	17.84	17.92	0.08	6924.19
MKTF-12	6/29/2020	19.13	19.25	0.12	6922.86
MKTF-12	9/18/2020	18.64	18.65	0.01	6923.46
MKTF-12	11/10/2020	17.97	18.00	0.03	6924.11
MKTF-12	12/03/2020	18.90	19.06	0.16	6923.05
MKTF-13	2/27/2020	11.13	17.31	6.18	6917.87
MKTF-13	6/29/2020	12.67	18.21	5.54	6916.97
MKTF-13	9/18/2020	12.55	16.92	4.37	6918.26
MKTF-13	11/10/2020	11.98	16.36	4.38	6918.82
MKTF-13	12/03/2020	12.84	16.65	3.81	6918.53
MKTF-14	2/27/2020	5.35	5.65	0.30	6922.37
MKTF-14	6/29/2020	6.38	8.58	2.20	6919.44
MKTF-14	9/18/2020	6.18	8.16	1.98	6919.86
MKTF-14	11/10/2020	5.98	6.28	0.30	6921.74
MKTF-14	12/03/2020	6.79	7.06	0.27	6920.96
MKTF-15	2/03/2020	13.02	13.11	0.09	6930.37
MKTF-15	6/26/2020	13.11	13.17	0.06	6930.31
MKTF-15	9/18/2020	13.00	13.03	0.03	6930.45
MKTF-15	11/10/2020	13.39	13.60	0.21	6929.88
MKTF-16	2/05/2020	ND	9.68	NA	6940.90
MKTF-16	6/26/2020	ND	9.54	NA	6941.04
MKTF-16	9/18/2020	9.18	9.19	0.01	6941.39
MKTF-16	11/10/2020	ND	7.20	NA	6943.38
MKTF-16	12/08/2020	ND	9.70	NA	6940.88
MKTF-17	2/03/2020	11.44	16.85	5.41	6928.91

TABLE ES-1. FLUID LEVEL MONITORING (2020)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location	Date Measured	Depth to Product (ft-bmp)	Depth to Water (ft-bmp)	Product Thickness (ft)	Water Elevation (ft-msl)
Pot Surface - Chinle					
MKTF-17	6/29/2020	10.19	15.50	5.31	6930.26
MKTF-17	9/14/2020	10.00	15.37	5.37	6930.39
MKTF-17	11/10/2020	11.39	11.59	0.20	6934.17
MKTF-17	12/04/2020	11.28	11.47	0.19	6934.29
MKTF-18	2/05/2020	ND	9.10	NA	6941.55
MKTF-18	6/30/2020	ND	8.98	NA	6941.67
MKTF-18	9/18/2020	8.49	8.50	0.01	6942.15
MKTF-18	11/10/2020	ND	8.74	NA	6941.91
MKTF-18	12/04/2020	ND	8.80	NA	6941.85
MKTF-19	2/03/2020	11.35	12.40	1.05	6932.27
MKTF-19	6/29/2020	12.08	13.29	1.21	6931.38
MKTF-19	9/14/2020	11.95	11.97	0.02	6932.70
MKTF-19	11/10/2020	12.22	13.55	1.33	6931.12
MKTF-19	12/04/2020	12.18	13.42	1.24	6931.25
MKTF-20	2/05/2020	ND	9.02	NA	6942.76
MKTF-20	6/26/2020	ND	8.67	NA	6943.11
MKTF-20	9/15/2020	8.54	9.35	0.81	6942.43
MKTF-20	11/10/2020	8.10	8.90	0.80	6942.88
MKTF-20	12/08/2020	8.76	8.95	0.19	6942.83
MKTF-21	2/05/2020	ND	8.25	NA	6944.32
MKTF-21	6/26/2020	8.17	8.20	0.03	6944.37
MKTF-21	9/15/2020	7.08	7.09	0.01	6945.48
MKTF-21	11/10/2020	ND	6.41	NA	6946.16
MKTF-21	12/04/2020	8.04	8.05	0.01	6944.52
MKTF-22	2/27/2020	24.48	25.53	1.05	6916.78
MKTF-22	6/29/2020	24.57	27.71	3.14	6914.60
MKTF-22	9/14/2020	24.98	27.68	2.70	6914.63
MKTF-22	11/10/2020	24.94	27.29	2.35	6915.02
MKTF-22	12/04/2020	25.10	27.55	2.45	6914.76
MKTF-23	2/27/2020	13.42	13.42	0	6916.56
MKTF-23	6/29/2020	ND	13.25	NA	6916.73
MKTF-23	9/19/2020	15.42	15.44	0.02	6914.54
MKTF-23	11/10/2020	ND	14.23	NA	6915.75
MKTF-23	12/04/2020	14.15	14.16	0.01	6915.82
MKTF-24	2/24/2020	ND	22.17	NA	6906.55
MKTF-24	6/26/2020	ND	22.80	NA	6905.92
MKTF-24	9/15/2020	ND	23.35	NA	6905.37
MKTF-24	11/10/2020	ND	23.32	NA	6905.40
MKTF-24	12/04/2020	ND	23.22	NA	6905.50
MKTF-25	2/26/2020	ND	12.94	NA	6903.25
MKTF-25	6/26/2020	ND	13.33	NA	6902.86

TABLE ES-1. FLUID LEVEL MONITORING (2020)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location	Date Measured	Depth to Product (ft-bmp)	Depth to Water (ft-bmp)	Product Thickness (ft)	Water Elevation (ft-msl)
Pot Surface - Chinle					
MKTF-25	9/15/2020	ND	13.90	NA	6902.29
MKTF-25	11/10/2020	ND	13.75	NA	6902.44
MKTF-25	12/04/2020	ND	13.62	NA	6902.57
MKTF-26	2/26/2020	8.35	9.11	0.76	6906.20
MKTF-26	6/26/2020	8.61	9.50	0.89	6905.81
MKTF-26	9/15/2020	8.81	9.56	0.75	6905.75
MKTF-26	11/10/2020	8.65	9.36	0.71	6905.95
MKTF-26	12/04/2020	7.67	9.39	1.72	6905.92
MKTF-27	2/24/2020	ND	3.61	NA	6914.29
MKTF-27	6/30/2020	ND	6.70	NA	6911.20
MKTF-27	9/15/2020	ND	6.21	NA	6911.69
MKTF-27	11/10/2020	ND	6.72	NA	6911.18
MKTF-27	12/04/2020	ND	6.47	NA	6911.43
MKTF-28	2/24/2020	ND	4.53	NA	6916.99
MKTF-28	6/30/2020	ND	4.84	NA	6916.68
MKTF-28	9/15/2020	ND	4.59	NA	6916.93
MKTF-28	11/10/2020	ND	8.81	NA	6912.71
MKTF-28	12/04/2020	ND	7.13	NA	6914.39
MKTF-29	2/24/2020	ND	4.49	NA	6897.13
MKTF-29	6/26/2020	ND	6.42	NA	6895.20
MKTF-29	9/15/2020	ND	8.01	NA	6893.61
MKTF-29	11/10/2020	ND	6.98	NA	6894.64
MKTF-29	12/04/2020	ND	6.40	NA	6895.22
MKTF-30	2/26/2020	ND	15.31	NA	6885.49
MKTF-30	6/26/2020	ND	16.19	NA	6884.61
MKTF-30	9/15/2020	ND	16.66	NA	6884.14
MKTF-30	11/10/2020	ND	16.87	NA	6883.93
MKTF-30	12/04/2020	ND	16.76	NA	6884.04
MKTF-31	2/24/2020	ND	8.10	NA	6898.77
MKTF-31	6/26/2020	ND	8.25	NA	6898.62
MKTF-31	9/15/2020	ND	8.75	NA	6898.12
MKTF-31	11/10/2020	ND	8.79	NA	6898.08
MKTF-31	12/04/2020	ND	8.73	NA	6898.14
MKTF-32	2/26/2020	ND	13.78	NA	6897.33
MKTF-32	6/29/2020	ND	14.25	NA	6896.86
MKTF-32	9/14/2020	ND	14.58	NA	6896.53
MKTF-32	11/10/2020	ND	14.31	NA	6896.80
MKTF-32	12/04/2020	ND	14.25	NA	6896.86
MKTF-33	2/27/2020	ND	22.71	NA	6917.04
MKTF-33	6/29/2020	ND	21.17	NA	6918.58
MKTF-33	9/14/2020	21.61	28.02	6.41	6911.73

TABLE ES-1. FLUID LEVEL MONITORING (2020)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location	Date Measured	Depth to Product (ft-bmp)	Depth to Water (ft-bmp)	Product Thickness (ft)	Water Elevation (ft-msl)
Pot Surface - Chinle					
MKTF-33	11/10/2020	21.65	27.81	6.16	6911.94
MKTF-33	12/04/2020	21.69	27.77	6.08	6911.98
MKTF-34	2/05/2020	ND	17.78	NA	6927.57
MKTF-34	6/29/2020	19.04	19.06	0.02	6926.29
MKTF-34	9/14/2020	ND	19.09	NA	6926.26
MKTF-34	11/10/2020	ND	19.08	NA	6926.27
MKTF-34	12/04/2020	18.91	18.92	0.01	6926.43
MKTF-35	2/05/2020	ND	9.28	NA	6942.37
MKTF-35	6/30/2020	ND	9.25	NA	6942.40
MKTF-35	9/14/2020	ND	8.59	NA	6943.06
MKTF-35	11/10/2020	ND	8.86	NA	6942.79
MKTF-35	12/04/2020	9.02	9.03	0.01	6942.62
MKTF-36	2/03/2020	7.89	8.44	0.55	6941.68
MKTF-36	6/30/2020	8.04	8.25	0.21	6941.87
MKTF-36	9/14/2020	ND	7.87	NA	6942.25
MKTF-36	11/10/2020	7.98	8.03	0.05	6942.09
MKTF-36	12/04/2020	8.10	8.17	0.07	6941.95
MKTF-37	2/03/2020	9.77	9.89	0.12	6948.98
MKTF-37	6/30/2020	9.61	9.63	0.02	6949.24
MKTF-37	9/14/2020	ND	8.76	NA	6950.11
MKTF-37	11/10/2020	9.36	9.37	0.01	6949.50
MKTF-37	12/04/2020	9.64	9.65	0.01	6949.22
MKTF-38	3/04/2020	ND	9.61	NA	6945.28
MKTF-38	6/26/2020	ND	9.38	NA	6945.51
MKTF-38	9/14/2020	ND	8.55	NA	6946.34
MKTF-38	11/10/2020	ND	9.12	NA	6945.77
MKTF-38	12/04/2020	9.35	9.36	0.01	6945.53
MKTF-39	2/03/2020	ND	10.10	NA	6943.65
MKTF-39	6/26/2020	ND	9.63	NA	6944.12
MKTF-39	9/15/2020	ND	9.58	NA	6944.17
MKTF-39	11/10/2020	ND	10.05	NA	6943.70
MKTF-39	12/04/2020	ND	10.15	NA	6943.60
MKTF-40	2/27/2020	ND	13.23	NA	6881.10
MKTF-40	6/26/2020	ND	12.75	NA	6881.58
MKTF-40	9/15/2020	ND	13.39	NA	6880.94
MKTF-40	11/10/2020	ND	13.71	NA	6880.62
MKTF-40	12/04/2020	ND	13.99	NA	6880.34
MKTF-41	2/26/2020	ND	20.15	NA	6873.49
MKTF-41	6/29/2020	ND	19.77	NA	6873.87
MKTF-41	9/14/2020	ND	20.72	NA	6872.92
MKTF-41	11/10/2020	ND	21.01	NA	6872.63

TABLE ES-1. FLUID LEVEL MONITORING (2020)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location	Date Measured	Depth to Product (ft-bmp)	Depth to Water (ft-bmp)	Product Thickness (ft)	Water Elevation (ft-msl)
Pot Surface - Chinle					
MKTF-41	12/04/2020	ND	20.90	NA	6872.74
MKTF-42	2/26/2020	ND	16.79	NA	6876.16
MKTF-42	6/30/2020	ND	16.25	NA	6876.70
MKTF-42	9/14/2020	ND	16.35	NA	6876.60
MKTF-42	11/10/2020	ND	15.30	NA	6877.65
MKTF-42	12/04/2020	ND	16.41	NA	6876.54
MKTF-43	2/26/2020	ND	6.33	NA	6870.57
MKTF-43	6/30/2020	ND	5.50	NA	6871.40
MKTF-43	9/14/2020	ND	6.45	NA	6870.45
MKTF-43	11/10/2020	ND	7.48	NA	6869.42
MKTF-43	12/04/2020	ND	8.12	NA	6868.78
MKTF-44	3/04/2020	ND	30.34	NA	6839.61
MKTF-44	6/26/2020	ND	33.08	NA	6836.87
MKTF-44	9/14/2020	ND	28.00	NA	6841.95
MKTF-44	12/04/2020	ND	39.59	NA	6830.36
MKTF-45	2/03/2020	9.60	18.62	9.02	6930.97
MKTF-45	6/30/2020	11.08	19.08	8.00	6930.51
MKTF-45	9/14/2020	13.14	18.43	5.29	6931.16
MKTF-45	11/10/2020	12.94	14.76	1.82	6934.83
MKTF-45	12/04/2020	12.66	14.51	1.85	6935.08
MKTF-46	3/05/2020	ND	10.93	NA	6946.67
MKTF-46	6/30/2020	ND	11.08	NA	6946.52
MKTF-46	9/14/2020	ND	10.18	NA	6947.42
MKTF-46	11/10/2020	ND	10.57	NA	6947.03
MKTF-46	12/04/2020	ND	10.77	NA	6946.83
MKTF-47	3/05/2020	ND	9.89	NA	6949.20
MKTF-47	6/29/2020	ND	9.50	NA	6949.59
MKTF-47	9/15/2020	8.53	8.54	0.01	6950.55
MKTF-47	11/10/2020	ND	9.33	NA	6949.76
MKTF-47	12/04/2020	9.58	9.59	0.01	6949.50
MKTF-48	3/03/2020	12.66	12.82	0.16	6948.91
MKTF-48	6/29/2020	ND	11.58	NA	6950.15
MKTF-48	9/15/2020	11.85	11.86	0.01	6949.87
MKTF-48	11/10/2020	12.40	12.51	0.11	6949.22
MKTF-48	12/04/2020	12.77	13.10	0.33	6948.63
MKTF-49	3/04/2020	ND	20.27	NA	6926.49
MKTF-49	6/30/2020	ND	20.65	NA	6926.11
MKTF-49	9/15/2020	ND	20.33	NA	6926.43
MKTF-49	11/10/2020	ND	20.75	NA	6926.01
MKTF-49	12/04/2020	ND	20.81	NA	6925.95
MKTF-50	3/04/2020	ND	15.87	NA	6926.95

TABLE ES-1. FLUID LEVEL MONITORING (2020)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location	Date Measured	Depth to Product (ft-bmp)	Depth to Water (ft-bmp)	Product Thickness (ft)	Water Elevation (ft-msl)
Pot Surface - Chinle					
MKTF-50	6/30/2020	ND	16.00	NA	6926.82
MKTF-50	9/15/2020	15.36	15.37	0.01	6927.45
MKTF-50	11/10/2020	ND	16.03	NA	6926.79
MKTF-50	12/04/2020	ND	16.17	NA	6926.65
NAPIS-1	3/04/2020	7.69	7.74	0.05	6906.12
NAPIS-1	7/01/2020	7.38	7.42	0.04	6906.44
NAPIS-1	9/15/2020	6.70	6.71	0.01	6907.15
NAPIS-1	11/10/2020	7.19	7.20	0.01	6906.66
NAPIS-1	12/07/2020	ND	7.44	NA	6906.42
NAPIS-2	3/03/2020	ND	9.46	NA	6903.19
NAPIS-2	7/01/2020	ND	9.12	NA	6903.53
NAPIS-2	9/15/2020	ND	8.12	NA	6904.53
NAPIS-2	11/10/2020	ND	8.51	NA	6904.14
NAPIS-2	12/07/2020	ND	8.72	NA	6903.93
NAPIS-3	3/03/2020	ND	10.62	NA	6902.14
NAPIS-3	7/01/2020	ND	10.10	NA	6902.66
NAPIS-3	9/15/2020	ND	9.25	NA	6903.51
NAPIS-3	11/10/2020	ND	9.47	NA	6903.29
NAPIS-3	12/07/2020	ND	8.51	NA	6904.25
OAPIS-1	3/03/2020	ND	12.56	NA	6904.17
OAPIS-1	7/01/2020	ND	12.60	NA	6904.13
OAPIS-1	9/15/2020	ND	11.90	NA	6904.83
OAPIS-1	11/10/2020	ND	12.02	NA	6904.71
OAPIS-1	12/07/2020	ND	12.31	NA	6904.42
OW-14	3/02/2020	NA	NA	NA	NA
OW-14	6/30/2020	ND	22.75	NA	6903.90
OW-14	9/14/2020	NA	NA	NA	NA
OW-14	12/07/2020	NA	24.40	NA	6902.25
OW-29	2/24/2020	ND	16.48	NA	6900.52
OW-29	6/30/2020	ND	17.42	NA	6899.58
OW-29	9/14/2020	ND	17.57	NA	6899.43
OW-29	11/09/2020	ND	17.23	NA	6899.77
OW-29	12/07/2020	ND	17.15	NA	6899.85
OW-30	3/02/2020	NA	NA	NA	NA
OW-30	6/30/2020	ND	22.33	NA	6902.36
OW-30	9/15/2020	ND	NA	NA	NA
OW-30	12/07/2020	ND	22.22	NA	6902.47
OW-50	3/02/2020	ND	14.05	NA	6900.16
OW-50	6/30/2020	ND	14.61	NA	6899.60
OW-50	9/14/2020	ND	15.11	NA	6899.10
OW-50	11/09/2020	ND	14.87	NA	6899.34

TABLE ES-1. FLUID LEVEL MONITORING (2020)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location	Date Measured	Depth to Product (ft-bmp)	Depth to Water (ft-bmp)	Product Thickness (ft)	Water Elevation (ft-msl)
Pot Surface - Chinle					
OW-50	12/07/2020	ND	14.72	NA	6899.49
OW-52	3/02/2020	ND	13.71	NA	6893.97
OW-52	6/30/2020	ND	14.20	NA	6893.48
OW-52	9/14/2020	ND	14.56	NA	6893.12
OW-52	10/09/2020	ND	14.52	NA	6893.16
OW-52	12/07/2020	ND	14.42	NA	6893.26
OW-53	3/02/2020	ND	Dry	NA	Dry
OW-53	6/30/2020	ND	Dry	NA	Dry
OW-53	9/14/2020	ND	Dry	NA	Dry
OW-53	11/09/2020	ND	Dry	NA	Dry
OW-53	12/07/2020	ND	Dry	NA	Dry
OW-54	3/02/2020	ND	17.18	NA	6901.74
OW-54	6/30/2020	ND	17.75	NA	6901.17
OW-54	9/14/2020	ND	18.17	NA	6900.75
OW-54	10/09/2020	ND	17.92	NA	6901.00
OW-54	12/07/2020	ND	17.78	NA	6901.14
OW-55	3/02/2020	ND	16.96	NA	6906.29
OW-55	6/30/2020	ND	17.42	NA	6905.83
OW-55	9/14/2020	ND	17.96	NA	6905.29
OW-55	10/09/2020	ND	17.70	NA	6905.55
OW-55	12/07/2020	ND	17.61	NA	6905.64
OW-56	3/02/2020	ND	13.02	NA	6907.16
OW-56	6/30/2020	ND	14.33	NA	6905.85
OW-56	9/14/2020	ND	14.36	NA	6905.82
OW-56	11/09/2020	ND	14.21	NA	6905.97
OW-56	12/07/2020	ND	13.73	NA	6906.45
OW-57	3/04/2020	ND	19.97	NA	6913.13
OW-57	6/30/2020	ND	20.22	NA	6912.88
OW-57	9/14/2020	ND	20.50	NA	6912.60
OW-57	11/09/2020	ND	20.53	NA	6912.57
OW-57	12/07/2020	ND	20.64	NA	6912.46
OW-58	6/30/2020	ND	24.12	NA	6910.38
OW-58	9/14/2020	ND	24.45	NA	6910.05
OW-58	11/09/2020	ND	23.31	NA	6911.19
OW-58	12/08/2020	ND	24.32	NA	6910.18
OW-58A	3/05/2020	ND	26.13	NA	6909.75
OW-58A	6/30/2020	ND	26.50	NA	6909.38
OW-58A	9/15/2020	ND	26.87	NA	6909.01
OW-58A	11/09/2020	ND	24.31	NA	6911.57
OW-58A	12/08/2020	ND	26.71	NA	6909.17
OW-59	3/03/2020	ND	23.53	NA	6866.20

TABLE ES-1. FLUID LEVEL MONITORING (2020)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location	Date Measured	Depth to Product (ft-bmp)	Depth to Water (ft-bmp)	Product Thickness (ft)	Water Elevation (ft-msl)
Pot Surface - Chinle					
OW-59	6/30/2020	ND	23.67	NA	6866.06
OW-59	9/14/2020	ND	24.06	NA	6865.67
OW-59	12/07/2020	ND	23.91	NA	6865.82
OW-60	3/03/2020	ND	16.14	NA	6877.37
OW-60	6/30/2020	ND	16.50	NA	6877.01
OW-60	9/14/2020	ND	16.57	NA	6876.94
OW-60	11/09/2020	ND	16.35	NA	6877.16
OW-60	12/07/2020	ND	16.55	NA	6876.96
OW-61	3/04/2020	18.28	21.09	2.81	6942.48
OW-61	6/29/2020	17.17	18.04	0.87	6945.53
OW-61	9/15/2020	16.88	19.40	2.52	6944.17
OW-61	11/09/2020	18.22	19.58	1.36	6943.99
OW-61	12/08/2020	18.40	20.30	1.90	6943.27
OW-62	3/10/2020	23.58	24.16	0.58	6913.20
OW-62	6/30/2020	23.62	23.91	0.29	6913.45
OW-62	9/15/2020	23.62	23.87	0.25	6913.49
OW-62	11/09/2020	23.70	24.00	0.30	6913.36
OW-62	12/08/2020	23.69	23.98	0.29	6913.38
OW-63	3/04/2020	ND	20.41	NA	6914.65
OW-63	6/29/2020	ND	20.46	NA	6914.60
OW-63	9/14/2020	ND	20.73	NA	6914.33
OW-63	11/09/2020	ND	20.85	NA	6914.21
OW-63	12/08/2020	ND	20.97	NA	6914.09
OW-64	3/04/2020	ND	7.50	NA	6939.90
OW-64	6/30/2020	ND	8.35	NA	6939.05
OW-64	9/14/2020	ND	7.95	NA	6939.45
OW-64	11/09/2020	ND	8.18	NA	6939.22
OW-64	12/07/2020	ND	8.26	NA	6939.14
OW-65	3/04/2020	23.83	30.08	6.25	6923.97
OW-65	6/29/2020	24.08	31.41	7.33	6922.64
OW-65	9/14/2020	24.70	30.76	6.06	6923.29
OW-65	11/09/2020	25.05	32.35	7.30	6921.70
OW-65	12/08/2020	25.79	31.95	6.16	6922.10
RW-1	3/04/2020	NA	NA	NA	NA
RW-1	6/30/2020	28.25	29.50	1.25	6916.56
RW-1	9/19/2020	28.07	30.20	2.13	6915.86
RW-1	11/10/2020	29.50	30.33	0.83	6915.73
RW-1	12/08/2020	29.50	30.33	0.83	6915.73
RW-2	3/04/2020	NA	NA	NA	NA
RW-2	6/30/2020	20.66	21.00	0.34	6907.53
RW-2	9/19/2020	22.10	22.23	0.13	6906.30

TABLE ES-1. FLUID LEVEL MONITORING (2020)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location	Date Measured	Depth to Product (ft-bmp)	Depth to Water (ft-bmp)	Product Thickness (ft)	Water Elevation (ft-msl)
Pot Surface - Chinle					
RW-2	11/09/2020	22.09	22.28	0.19	6906.25
RW-2	12/08/2020	22.20	22.38	0.18	6906.15
RW-5	3/04/2020	NA	NA	NA	NA
RW-5	6/30/2020	28.65	32.05	3.40	6911.52
RW-5	9/19/2020	29.59	32.81	3.22	6910.76
RW-5	11/09/2020	29.86	33.03	3.17	6910.54
RW-5	12/08/2020	33.15	39.51	6.36	6904.06
RW-6	3/04/2020	NA	NA	NA	NA
RW-6	6/30/2020	28.87	30.50	1.63	6913.51
RW-6	9/19/2020	29.72	32.64	2.92	6911.37
RW-6	11/09/2020	29.98	33.05	3.07	6910.96
RW-6	12/08/2020	30.18	33.31	3.13	6910.70
SMW-2	6/30/2020	ND	24.25	NA	6859.72
SMW-2	9/14/2020	ND	24.70	NA	6859.27
SMW-4	6/30/2020	ND	29.17	NA	6850.35
SMW-4	9/14/2020	ND	29.15	NA	6850.37
STP1-NW	3/03/2020	ND	20.27	NA	6884.20
STP1-NW	6/30/2020	ND	20.67	NA	6883.80
STP1-NW	12/08/2020	ND	20.78	NA	6883.69
STP1-SW	3/03/2020	NA	NA	NA	NA
STP1-SW	12/08/2020	NA	29.23	NA	6883.15
Pot Surface - Sonsela Wells					
BW-1C	9/14/2020	ND	13.89	NA	6871.79
BW-2C	9/14/2020	ND	21.32	NA	6853.98
BW-3C	9/14/2020	ND	8.52	NA	6869.43
BW-5C	3/05/2020	ND	2.80	NA	6874.05
BW-5C	6/26/2020	ND	3.38	NA	6873.47
BW-5C	9/14/2020	ND	4.36	NA	6872.49
BW-5C	12/07/2020	ND	4.27	NA	6872.58
MW-1	6/30/2020	ND	7.25	NA	6870.87
MW-1	9/14/2020	ND	7.72	NA	6870.40
MW-2	6/30/2020	ND	9.29	NA	6871.01
MW-2	9/14/2020	ND	9.74	NA	6870.56
MW-4	6/30/2020	ND	7.50	NA	6874.13
MW-4	9/14/2020	ND	8.00	NA	6873.63
MW-5	6/30/2020	ND	11.46	NA	6871.37
MW-5	9/14/2020	ND	11.99	NA	6870.84
OW-01	3/09/2020	ND	1.70	NA	6864.92
OW-01	6/30/2020	ND	1.60	NA	6865.02
OW-01	9/15/2020	ND	1.45	NA	6865.17
OW-01	12/07/2020	ND	1.75	NA	6864.87

TABLE ES-1. FLUID LEVEL MONITORING (2020)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location	Date Measured	Depth to Product (ft-bmp)	Depth to Water (ft-bmp)	Product Thickness (ft)	Water Elevation (ft-msl)
Pot Surface - Sonsela Wells					
OW-10	3/04/2020	ND	5.43	NA	6869.48
OW-10	6/30/2020	ND	6.75	NA	6868.16
OW-10	9/20/2020	ND	7.70	NA	6867.21
OW-10	10/09/2020	ND	7.70	NA	6867.21
OW-10	12/07/2020	ND	7.61	NA	6867.30
OW-11	9/15/2020	ND	18.51	NA	6905.00
OW-12	6/30/2020	ND	Dry	NA	Dry
OW-12	9/14/2020	ND	46.45	NA	6894.24
OW-12	11/09/2020	ND	46.49	NA	6894.20
OW-13	3/02/2020	ND	19.91	NA	6900.16
OW-13	6/30/2020	ND	22.16	NA	6897.91
OW-13	9/14/2020	ND	20.99	NA	6899.08
OW-13	11/09/2020	ND	20.38	NA	6899.69
OW-13	12/07/2020	ND	20.24	NA	6899.83

Notes:
ft- feet
ft-bmp - feet below measuring point
ft-msl - feet mean sea level
ND - not detected
NA - not applicable

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

Released to Imaging: 11/22/2022 10:55:50 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
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
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

Released to Imaging: 11/22/2022 10:55:50 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
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

Released to Imaging: 11/22/2022 10:55:50 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
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
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 Comission

Released to Imaging: 11/22/2022 10:55:50 AM

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

Location	Date Measured	Depth to Product (ft-bmp)	Depth to Water (ft-bmp)	Product Thickness (ft)	Water Elevation (ft-msl)
Pot Surface - Alluvial					
BW-1A	9/14/2020	ND	Dry	NA	Dry
BW-2A	9/14/2020	ND	32.93	NA	6841.76
BW-3A	9/14/2020	ND	Dry	NA	Dry
BW-4A	3/09/2020	ND	38.34	NA	6834.84
BW-4A	6/30/2020	ND	Dry	NA	Dry
BW-4A	9/14/2020	ND	Dry	NA	Dry
BW-4A	12/07/2020	ND	Dry	NA	Dry
BW-5A	3/05/2020	ND	Dry	NA	Dry
BW-5A	6/26/2020	ND	23.21	NA	6853.79
BW-5A	9/14/2020	ND	Dry	NA	Dry
BW-5A	12/07/2020	ND	23.27	NA	6853.73
Pot Surface - Chinle					
BW-1B	9/14/2020	ND	Dry	NA	Dry
BW-2B	9/14/2020	ND	28.79	NA	6845.71
BW-3B	9/14/2020	ND	34.24	NA	6844.35
BW-4B	3/09/2020	ND	40.35	NA	6832.88
BW-4B	6/26/2020	NA	NA	NA	NA
BW-4B	6/30/2020	ND	44.75	NA	6828.48
BW-4B	9/14/2020	ND	39.86	NA	6833.37
BW-4B	12/07/2020	ND	35.86	NA	6837.37
BW-5B	3/05/2020	ND	9.94	NA	6866.88
BW-5B	6/26/2020	ND	10.21	NA	6866.61
BW-5B	9/14/2020	ND	10.61	NA	6866.21
BW-5B	12/07/2020	ND	10.53	NA	6866.29
GWM-1	3/03/2020	21.40	21.48	0.08	6891.13
GWM-1	7/01/2020	20.82	20.37	-0.45	6892.24
GWM-1	9/15/2020	20.73	21.40	0.67	6891.21
GWM-1	11/09/2020	20.88	21.72	0.84	6890.89
GWM-1	12/07/2020	20.91	21.85	0.94	6890.76
GWM-2	3/03/2020	ND	Dry	NA	Dry
GWM-2	7/01/2020	ND	Dry	NA	Dry
GWM-2	9/15/2020	ND	Dry	NA	Dry
GWM-2	11/10/2020	ND	Dry	NA	Dry
GWM-2	12/07/2020	ND	Dry	NA	Dry
GWM-3	3/03/2020	ND	Dry	NA	Dry
GWM-3	7/01/2020	ND	Dry	NA	Dry
GWM-3	9/15/2020	ND	Dry	NA	Dry
GWM-3	10/11/2020	ND	Dry	NA	Dry
GWM-3	12/07/2020	ND	Dry	NA	Dry
KA-3	3/03/2020	ND	9.30	NA	6903.22
KA-3	7/01/2020	ND	8.75	NA	6903.77

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

Location	Date Measured	Depth to Product (ft-bmp)	Depth to Water (ft-bmp)	Product Thickness (ft)	Water Elevation (ft-msl)
Pot Surface - Chinle					
KA-3	9/15/2020	ND	8.08	NA	6904.44
KA-3	12/07/2020	ND	9.56	NA	6902.96
MKTF-01	2/24/2020	4.87	5.16	0.29	6915.51
MKTF-01	6/26/2020	5.50	5.71	0.21	6914.96
MKTF-01	9/15/2020	5.61	5.62	0.01	6915.05
MKTF-01	11/10/2020	5.61	5.89	0.28	6914.78
MKTF-01	12/03/2020	5.74	6.02	0.28	6914.65
MKTF-02	2/24/2020	ND	6.52	NA	6910.93
MKTF-02	6/26/2020	ND	7.70	NA	6909.75
MKTF-02	9/15/2020	ND	7.88	NA	6909.57
MKTF-02	11/10/2020	ND	7.43	NA	6910.02
MKTF-02	12/03/2020	ND	7.72	NA	6909.73
MKTF-03	3/05/2020	6.47	7.84	1.37	6923.85
MKTF-03	6/26/2020	7.36	8.63	1.27	6923.06
MKTF-03	9/15/2020	7.08	7.09	0.01	6924.60
MKTF-03	11/10/2020	7.13	8.43	1.30	6923.26
MKTF-03	12/03/2020	7.46	8.62	1.16	6923.07
MKTF-04	3/02/2020	ND	8.47	NA	6925.10
MKTF-04	6/26/2020	ND	9.75	NA	6923.82
MKTF-04	9/15/2020	9.39	9.40	0.01	6924.17
MKTF-04	11/10/2020	ND	9.20	NA	6924.37
MKTF-04	12/03/2020	9.70	9.71	0.01	6923.86
MKTF-05	3/05/2020	13.58	13.72	0.14	6928.50
MKTF-05	6/25/2020	14.06	14.80	0.74	6927.42
MKTF-05	9/15/2020	13.65	14.68	1.03	6927.54
MKTF-05	11/10/2020	14.02	14.90	0.88	6927.32
MKTF-05	12/03/2020	14.12	14.93	0.81	6927.29
MKTF-06	3/05/2020	16.89	18.60	1.71	6928.21
MKTF-06	6/25/2020	14.05	18.90	4.85	6927.91
MKTF-06	9/15/2020	16.78	18.71	1.93	6928.10
MKTF-06	11/10/2020	17.20	18.59	1.39	6928.22
MKTF-06	12/03/2020	17.38	18.49	1.11	6928.32
MKTF-07	3/05/2020	12.50	13.72	1.22	6933.46
MKTF-07	6/25/2020	12.23	13.76	1.53	6933.42
MKTF-07	9/18/2020	11.42	13.77	2.35	6933.41
MKTF-07	11/10/2020	12.56	13.76	1.20	6933.42
MKTF-07	12/03/2020	12.93	13.80	0.87	6933.38
MKTF-08	3/05/2020	14.03	14.37	0.34	6932.72
MKTF-08	6/25/2020	14.00	14.40	0.40	6932.69
MKTF-08	9/18/2020	13.76	14.15	0.39	6932.94
MKTF-08	11/10/2020	14.23	14.69	0.46	6932.40

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

Location	Date Measured	Depth to Product (ft-bmp)	Depth to Water (ft-bmp)	Product Thickness (ft)	Water Elevation (ft-msl)
Pot Surface - Chinle					
MKTF-08	12/03/2020	14.36	14.76	0.40	6932.33
MKTF-09	3/02/2020	ND	14.23	NA	6932.27
MKTF-09	6/25/2020	ND	14.55	NA	6931.95
MKTF-09	9/18/2020	14.19	14.20	0.01	6932.30
MKTF-09	11/10/2020	14.61	14.62	0.01	6931.88
MKTF-09	12/03/2020	14.75	14.76	0.01	6931.74
MKTF-10	3/02/2020	ND	7.67	NA	6929.49
MKTF-10	6/25/2020	ND	7.07	NA	6930.09
MKTF-10	9/18/2020	7.52	7.53	0.01	6929.63
MKTF-10	11/10/2020	ND	7.79	NA	6929.37
MKTF-10	12/03/2020	ND	7.80	NA	6929.36
MKTF-11	3/02/2020	ND	7.89	NA	6923.45
MKTF-11	6/26/2020	7.67	7.68	0.01	6923.66
MKTF-11	9/18/2020	7.59	7.60	0.01	6923.74
MKTF-11	11/10/2020	ND	7.61	NA	6923.73
MKTF-11	12/03/2020	7.89	7.91	0.02	6923.43
MKTF-12	2/27/2020	17.84	17.92	0.08	6924.19
MKTF-12	6/29/2020	19.13	19.25	0.12	6922.86
MKTF-12	9/18/2020	18.64	18.65	0.01	6923.46
MKTF-12	11/10/2020	17.97	18.00	0.03	6924.11
MKTF-12	12/03/2020	18.90	19.06	0.16	6923.05
MKTF-13	2/27/2020	11.13	17.31	6.18	6917.87
MKTF-13	6/29/2020	12.67	18.21	5.54	6916.97
MKTF-13	9/18/2020	12.55	16.92	4.37	6918.26
MKTF-13	11/10/2020	11.98	16.36	4.38	6918.82
MKTF-13	12/03/2020	12.84	16.65	3.81	6918.53
MKTF-14	2/27/2020	5.35	5.65	0.30	6922.37
MKTF-14	6/29/2020	6.38	8.58	2.20	6919.44
MKTF-14	9/18/2020	6.18	8.16	1.98	6919.86
MKTF-14	11/10/2020	5.98	6.28	0.30	6921.74
MKTF-14	12/03/2020	6.79	7.06	0.27	6920.96
MKTF-15	2/03/2020	13.02	13.11	0.09	6930.37
MKTF-15	6/26/2020	13.11	13.17	0.06	6930.31
MKTF-15	9/18/2020	13.00	13.03	0.03	6930.45
MKTF-15	11/10/2020	13.39	13.60	0.21	6929.88
MKTF-16	2/05/2020	ND	9.68	NA	6940.90
MKTF-16	6/26/2020	ND	9.54	NA	6941.04
MKTF-16	9/18/2020	9.18	9.19	0.01	6941.39
MKTF-16	11/10/2020	ND	7.20	NA	6943.38
MKTF-16	12/08/2020	ND	9.70	NA	6940.88
MKTF-17	2/03/2020	11.44	16.85	5.41	6928.91

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

Location	Date Measured	Depth to Product (ft-bmp)	Depth to Water (ft-bmp)	Product Thickness (ft)	Water Elevation (ft-msl)
Pot Surface - Chinle					
MKTF-17	6/29/2020	10.19	15.50	5.31	6930.26
MKTF-17	9/14/2020	10.00	15.37	5.37	6930.39
MKTF-17	11/10/2020	11.39	11.59	0.20	6934.17
MKTF-17	12/04/2020	11.28	11.47	0.19	6934.29
MKTF-18	2/05/2020	ND	9.10	NA	6941.55
MKTF-18	6/30/2020	ND	8.98	NA	6941.67
MKTF-18	9/18/2020	8.49	8.50	0.01	6942.15
MKTF-18	11/10/2020	ND	8.74	NA	6941.91
MKTF-18	12/04/2020	ND	8.80	NA	6941.85
MKTF-19	2/03/2020	11.35	12.40	1.05	6932.27
MKTF-19	6/29/2020	12.08	13.29	1.21	6931.38
MKTF-19	9/14/2020	11.95	11.97	0.02	6932.70
MKTF-19	11/10/2020	12.22	13.55	1.33	6931.12
MKTF-19	12/04/2020	12.18	13.42	1.24	6931.25
MKTF-20	2/05/2020	ND	9.02	NA	6942.76
MKTF-20	6/26/2020	ND	8.67	NA	6943.11
MKTF-20	9/15/2020	8.54	9.35	0.81	6942.43
MKTF-20	11/10/2020	8.10	8.90	0.80	6942.88
MKTF-20	12/08/2020	8.76	8.95	0.19	6942.83
MKTF-21	2/05/2020	ND	8.25	NA	6944.32
MKTF-21	6/26/2020	8.17	8.20	0.03	6944.37
MKTF-21	9/15/2020	7.08	7.09	0.01	6945.48
MKTF-21	11/10/2020	ND	6.41	NA	6946.16
MKTF-21	12/04/2020	8.04	8.05	0.01	6944.52
MKTF-22	2/27/2020	24.48	25.53	1.05	6916.78
MKTF-22	6/29/2020	24.57	27.71	3.14	6914.60
MKTF-22	9/14/2020	24.98	27.68	2.70	6914.63
MKTF-22	11/10/2020	24.94	27.29	2.35	6915.02
MKTF-22	12/04/2020	25.10	27.55	2.45	6914.76
MKTF-23	2/27/2020	13.42	13.42	0	6916.56
MKTF-23	6/29/2020	ND	13.25	NA	6916.73
MKTF-23	9/19/2020	15.42	15.44	0.02	6914.54
MKTF-23	11/10/2020	ND	14.23	NA	6915.75
MKTF-23	12/04/2020	14.15	14.16	0.01	6915.82
MKTF-24	2/24/2020	ND	22.17	NA	6906.55
MKTF-24	6/26/2020	ND	22.80	NA	6905.92
MKTF-24	9/15/2020	ND	23.35	NA	6905.37
MKTF-24	11/10/2020	ND	23.32	NA	6905.40
MKTF-24	12/04/2020	ND	23.22	NA	6905.50
MKTF-25	2/26/2020	ND	12.94	NA	6903.25
MKTF-25	6/26/2020	ND	13.33	NA	6902.86

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

Location	Date Measured	Depth to Product (ft-bmp)	Depth to Water (ft-bmp)	Product Thickness (ft)	Water Elevation (ft-msl)
Pot Surface - Chinle					
MKTF-25	9/15/2020	ND	13.90	NA	6902.29
MKTF-25	11/10/2020	ND	13.75	NA	6902.44
MKTF-25	12/04/2020	ND	13.62	NA	6902.57
MKTF-26	2/26/2020	8.35	9.11	0.76	6906.20
MKTF-26	6/26/2020	8.61	9.50	0.89	6905.81
MKTF-26	9/15/2020	8.81	9.56	0.75	6905.75
MKTF-26	11/10/2020	8.65	9.36	0.71	6905.95
MKTF-26	12/04/2020	7.67	9.39	1.72	6905.92
MKTF-27	2/24/2020	ND	3.61	NA	6914.29
MKTF-27	6/30/2020	ND	6.70	NA	6911.20
MKTF-27	9/15/2020	ND	6.21	NA	6911.69
MKTF-27	11/10/2020	ND	6.72	NA	6911.18
MKTF-27	12/04/2020	ND	6.47	NA	6911.43
MKTF-28	2/24/2020	ND	4.53	NA	6916.99
MKTF-28	6/30/2020	ND	4.84	NA	6916.68
MKTF-28	9/15/2020	ND	4.59	NA	6916.93
MKTF-28	11/10/2020	ND	8.81	NA	6912.71
MKTF-28	12/04/2020	ND	7.13	NA	6914.39
MKTF-29	2/24/2020	ND	4.49	NA	6897.13
MKTF-29	6/26/2020	ND	6.42	NA	6895.20
MKTF-29	9/15/2020	ND	8.01	NA	6893.61
MKTF-29	11/10/2020	ND	6.98	NA	6894.64
MKTF-29	12/04/2020	ND	6.40	NA	6895.22
MKTF-30	2/26/2020	ND	15.31	NA	6885.49
MKTF-30	6/26/2020	ND	16.19	NA	6884.61
MKTF-30	9/15/2020	ND	16.66	NA	6884.14
MKTF-30	11/10/2020	ND	16.87	NA	6883.93
MKTF-30	12/04/2020	ND	16.76	NA	6884.04
MKTF-31	2/24/2020	ND	8.10	NA	6898.77
MKTF-31	6/26/2020	ND	8.25	NA	6898.62
MKTF-31	9/15/2020	ND	8.75	NA	6898.12
MKTF-31	11/10/2020	ND	8.79	NA	6898.08
MKTF-31	12/04/2020	ND	8.73	NA	6898.14
MKTF-32	2/26/2020	ND	13.78	NA	6897.33
MKTF-32	6/29/2020	ND	14.25	NA	6896.86
MKTF-32	9/14/2020	ND	14.58	NA	6896.53
MKTF-32	11/10/2020	ND	14.31	NA	6896.80
MKTF-32	12/04/2020	ND	14.25	NA	6896.86
MKTF-33	2/27/2020	ND	22.71	NA	6917.04
MKTF-33	6/29/2020	ND	21.17	NA	6918.58
MKTF-33	9/14/2020	21.61	28.02	6.41	6911.73

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

Location	Date Measured	Depth to Product (ft-bmp)	Depth to Water (ft-bmp)	Product Thickness (ft)	Water Elevation (ft-msl)
Pot Surface - Chinle					
MKTF-33	11/10/2020	21.65	27.81	6.16	6911.94
MKTF-33	12/04/2020	21.69	27.77	6.08	6911.98
MKTF-34	2/05/2020	ND	17.78	NA	6927.57
MKTF-34	6/29/2020	19.04	19.06	0.02	6926.29
MKTF-34	9/14/2020	ND	19.09	NA	6926.26
MKTF-34	11/10/2020	ND	19.08	NA	6926.27
MKTF-34	12/04/2020	18.91	18.92	0.01	6926.43
MKTF-35	2/05/2020	ND	9.28	NA	6942.37
MKTF-35	6/30/2020	ND	9.25	NA	6942.40
MKTF-35	9/14/2020	ND	8.59	NA	6943.06
MKTF-35	11/10/2020	ND	8.86	NA	6942.79
MKTF-35	12/04/2020	9.02	9.03	0.01	6942.62
MKTF-36	2/03/2020	7.89	8.44	0.55	6941.68
MKTF-36	6/30/2020	8.04	8.25	0.21	6941.87
MKTF-36	9/14/2020	ND	7.87	NA	6942.25
MKTF-36	11/10/2020	7.98	8.03	0.05	6942.09
MKTF-36	12/04/2020	8.10	8.17	0.07	6941.95
MKTF-37	2/03/2020	9.77	9.89	0.12	6948.98
MKTF-37	6/30/2020	9.61	9.63	0.02	6949.24
MKTF-37	9/14/2020	ND	8.76	NA	6950.11
MKTF-37	11/10/2020	9.36	9.37	0.01	6949.50
MKTF-37	12/04/2020	9.64	9.65	0.01	6949.22
MKTF-38	3/04/2020	ND	9.61	NA	6945.28
MKTF-38	6/26/2020	ND	9.38	NA	6945.51
MKTF-38	9/14/2020	ND	8.55	NA	6946.34
MKTF-38	11/10/2020	ND	9.12	NA	6945.77
MKTF-38	12/04/2020	9.35	9.36	0.01	6945.53
MKTF-39	2/03/2020	ND	10.10	NA	6943.65
MKTF-39	6/26/2020	ND	9.63	NA	6944.12
MKTF-39	9/15/2020	ND	9.58	NA	6944.17
MKTF-39	11/10/2020	ND	10.05	NA	6943.70
MKTF-39	12/04/2020	ND	10.15	NA	6943.60
MKTF-40	2/27/2020	ND	13.23	NA	6881.10
MKTF-40	6/26/2020	ND	12.75	NA	6881.58
MKTF-40	9/15/2020	ND	13.39	NA	6880.94
MKTF-40	11/10/2020	ND	13.71	NA	6880.62
MKTF-40	12/04/2020	ND	13.99	NA	6880.34
MKTF-41	2/26/2020	ND	20.15	NA	6873.49
MKTF-41	6/29/2020	ND	19.77	NA	6873.87
MKTF-41	9/14/2020	ND	20.72	NA	6872.92
MKTF-41	11/10/2020	ND	21.01	NA	6872.63

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

Location	Date Measured	Depth to Product (ft-bmp)	Depth to Water (ft-bmp)	Product Thickness (ft)	Water Elevation (ft-msl)
Pot Surface - Chinle					
MKTF-41	12/04/2020	ND	20.90	NA	6872.74
MKTF-42	2/26/2020	ND	16.79	NA	6876.16
MKTF-42	6/30/2020	ND	16.25	NA	6876.70
MKTF-42	9/14/2020	ND	16.35	NA	6876.60
MKTF-42	11/10/2020	ND	15.30	NA	6877.65
MKTF-42	12/04/2020	ND	16.41	NA	6876.54
MKTF-43	2/26/2020	ND	6.33	NA	6870.57
MKTF-43	6/30/2020	ND	5.50	NA	6871.40
MKTF-43	9/14/2020	ND	6.45	NA	6870.45
MKTF-43	11/10/2020	ND	7.48	NA	6869.42
MKTF-43	12/04/2020	ND	8.12	NA	6868.78
MKTF-44	3/04/2020	ND	30.34	NA	6839.61
MKTF-44	6/26/2020	ND	33.08	NA	6836.87
MKTF-44	9/14/2020	ND	28.00	NA	6841.95
MKTF-44	12/04/2020	ND	39.59	NA	6830.36
MKTF-45	2/03/2020	9.60	18.62	9.02	6930.97
MKTF-45	6/30/2020	11.08	19.08	8.00	6930.51
MKTF-45	9/14/2020	13.14	18.43	5.29	6931.16
MKTF-45	11/10/2020	12.94	14.76	1.82	6934.83
MKTF-45	12/04/2020	12.66	14.51	1.85	6935.08
MKTF-46	3/05/2020	ND	10.93	NA	6946.67
MKTF-46	6/30/2020	ND	11.08	NA	6946.52
MKTF-46	9/14/2020	ND	10.18	NA	6947.42
MKTF-46	11/10/2020	ND	10.57	NA	6947.03
MKTF-46	12/04/2020	ND	10.77	NA	6946.83
MKTF-47	3/05/2020	ND	9.89	NA	6949.20
MKTF-47	6/29/2020	ND	9.50	NA	6949.59
MKTF-47	9/15/2020	8.53	8.54	0.01	6950.55
MKTF-47	11/10/2020	ND	9.33	NA	6949.76
MKTF-47	12/04/2020	9.58	9.59	0.01	6949.50
MKTF-48	3/03/2020	12.66	12.82	0.16	6948.91
MKTF-48	6/29/2020	ND	11.58	NA	6950.15
MKTF-48	9/15/2020	11.85	11.86	0.01	6949.87
MKTF-48	11/10/2020	12.40	12.51	0.11	6949.22
MKTF-48	12/04/2020	12.77	13.10	0.33	6948.63
MKTF-49	3/04/2020	ND	20.27	NA	6926.49
MKTF-49	6/30/2020	ND	20.65	NA	6926.11
MKTF-49	9/15/2020	ND	20.33	NA	6926.43
MKTF-49	11/10/2020	ND	20.75	NA	6926.01
MKTF-49	12/04/2020	ND	20.81	NA	6925.95
MKTF-50	3/04/2020	ND	15.87	NA	6926.95

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

Location	Date Measured	Depth to Product (ft-bmp)	Depth to Water (ft-bmp)	Product Thickness (ft)	Water Elevation (ft-msl)
Pot Surface - Chinle					
MKTF-50	6/30/2020	ND	16.00	NA	6926.82
MKTF-50	9/15/2020	15.36	15.37	0.01	6927.45
MKTF-50	11/10/2020	ND	16.03	NA	6926.79
MKTF-50	12/04/2020	ND	16.17	NA	6926.65
NAPIS-1	3/04/2020	7.69	7.74	0.05	6906.12
NAPIS-1	7/01/2020	7.38	7.42	0.04	6906.44
NAPIS-1	9/15/2020	6.70	6.71	0.01	6907.15
NAPIS-1	11/10/2020	7.19	7.20	0.01	6906.66
NAPIS-1	12/07/2020	ND	7.44	NA	6906.42
NAPIS-2	3/03/2020	ND	9.46	NA	6903.19
NAPIS-2	7/01/2020	ND	9.12	NA	6903.53
NAPIS-2	9/15/2020	ND	8.12	NA	6904.53
NAPIS-2	11/10/2020	ND	8.51	NA	6904.14
NAPIS-2	12/07/2020	ND	8.72	NA	6903.93
NAPIS-3	3/03/2020	ND	10.62	NA	6902.14
NAPIS-3	7/01/2020	ND	10.10	NA	6902.66
NAPIS-3	9/15/2020	ND	9.25	NA	6903.51
NAPIS-3	11/10/2020	ND	9.47	NA	6903.29
NAPIS-3	12/07/2020	ND	8.51	NA	6904.25
OAPIS-1	3/03/2020	ND	12.56	NA	6904.17
OAPIS-1	7/01/2020	ND	12.60	NA	6904.13
OAPIS-1	9/15/2020	ND	11.90	NA	6904.83
OAPIS-1	11/10/2020	ND	12.02	NA	6904.71
OAPIS-1	12/07/2020	ND	12.31	NA	6904.42
OW-14	3/02/2020	NA	NA	NA	NA
OW-14	6/30/2020	ND	22.75	NA	6903.90
OW-14	9/14/2020	NA	NA	NA	NA
OW-14	12/07/2020	NA	24.40	NA	6902.25
OW-29	2/24/2020	ND	16.48	NA	6900.52
OW-29	6/30/2020	ND	17.42	NA	6899.58
OW-29	9/14/2020	ND	17.57	NA	6899.43
OW-29	11/09/2020	ND	17.23	NA	6899.77
OW-29	12/07/2020	ND	17.15	NA	6899.85
OW-30	3/02/2020	NA	NA	NA	NA
OW-30	6/30/2020	ND	22.33	NA	6902.36
OW-30	9/15/2020	ND	NA	NA	NA
OW-30	12/07/2020	ND	22.22	NA	6902.47
OW-50	3/02/2020	ND	14.05	NA	6900.16
OW-50	6/30/2020	ND	14.61	NA	6899.60
OW-50	9/14/2020	ND	15.11	NA	6899.10
OW-50	11/09/2020	ND	14.87	NA	6899.34

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

Location	Date Measured	Depth to Product (ft-bmp)	Depth to Water (ft-bmp)	Product Thickness (ft)	Water Elevation (ft-msl)
Pot Surface - Chinle					
OW-50	12/07/2020	ND	14.72	NA	6899.49
OW-52	3/02/2020	ND	13.71	NA	6893.97
OW-52	6/30/2020	ND	14.20	NA	6893.48
OW-52	9/14/2020	ND	14.56	NA	6893.12
OW-52	10/09/2020	ND	14.52	NA	6893.16
OW-52	12/07/2020	ND	14.42	NA	6893.26
OW-53	3/02/2020	ND	Dry	NA	Dry
OW-53	6/30/2020	ND	Dry	NA	Dry
OW-53	9/14/2020	ND	Dry	NA	Dry
OW-53	11/09/2020	ND	Dry	NA	Dry
OW-53	12/07/2020	ND	Dry	NA	Dry
OW-54	3/02/2020	ND	17.18	NA	6901.74
OW-54	6/30/2020	ND	17.75	NA	6901.17
OW-54	9/14/2020	ND	18.17	NA	6900.75
OW-54	10/09/2020	ND	17.92	NA	6901.00
OW-54	12/07/2020	ND	17.78	NA	6901.14
OW-55	3/02/2020	ND	16.96	NA	6906.29
OW-55	6/30/2020	ND	17.42	NA	6905.83
OW-55	9/14/2020	ND	17.96	NA	6905.29
OW-55	10/09/2020	ND	17.70	NA	6905.55
OW-55	12/07/2020	ND	17.61	NA	6905.64
OW-56	3/02/2020	ND	13.02	NA	6907.16
OW-56	6/30/2020	ND	14.33	NA	6905.85
OW-56	9/14/2020	ND	14.36	NA	6905.82
OW-56	11/09/2020	ND	14.21	NA	6905.97
OW-56	12/07/2020	ND	13.73	NA	6906.45
OW-57	3/04/2020	ND	19.97	NA	6913.13
OW-57	6/30/2020	ND	20.22	NA	6912.88
OW-57	9/14/2020	ND	20.50	NA	6912.60
OW-57	11/09/2020	ND	20.53	NA	6912.57
OW-57	12/07/2020	ND	20.64	NA	6912.46
OW-58	6/30/2020	ND	24.12	NA	6910.38
OW-58	9/14/2020	ND	24.45	NA	6910.05
OW-58	11/09/2020	ND	23.31	NA	6911.19
OW-58	12/08/2020	ND	24.32	NA	6910.18
OW-58A	3/05/2020	ND	26.13	NA	6909.75
OW-58A	6/30/2020	ND	26.50	NA	6909.38
OW-58A	9/15/2020	ND	26.87	NA	6909.01
OW-58A	11/09/2020	ND	24.31	NA	6911.57
OW-58A	12/08/2020	ND	26.71	NA	6909.17
OW-59	3/03/2020	ND	23.53	NA	6866.20

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

Location	Date Measured	Depth to Product (ft-bmp)	Depth to Water (ft-bmp)	Product Thickness (ft)	Water Elevation (ft-msl)
Pot Surface - Chinle					
OW-59	6/30/2020	ND	23.67	NA	6866.06
OW-59	9/14/2020	ND	24.06	NA	6865.67
OW-59	12/07/2020	ND	23.91	NA	6865.82
OW-60	3/03/2020	ND	16.14	NA	6877.37
OW-60	6/30/2020	ND	16.50	NA	6877.01
OW-60	9/14/2020	ND	16.57	NA	6876.94
OW-60	11/09/2020	ND	16.35	NA	6877.16
OW-60	12/07/2020	ND	16.55	NA	6876.96
OW-61	3/04/2020	18.28	21.09	2.81	6942.48
OW-61	6/29/2020	17.17	18.04	0.87	6945.53
OW-61	9/15/2020	16.88	19.40	2.52	6944.17
OW-61	11/09/2020	18.22	19.58	1.36	6943.99
OW-61	12/08/2020	18.40	20.30	1.90	6943.27
OW-62	3/10/2020	23.58	24.16	0.58	6913.20
OW-62	6/30/2020	23.62	23.91	0.29	6913.45
OW-62	9/15/2020	23.62	23.87	0.25	6913.49
OW-62	11/09/2020	23.70	24.00	0.30	6913.36
OW-62	12/08/2020	23.69	23.98	0.29	6913.38
OW-63	3/04/2020	ND	20.41	NA	6914.65
OW-63	6/29/2020	ND	20.46	NA	6914.60
OW-63	9/14/2020	ND	20.73	NA	6914.33
OW-63	11/09/2020	ND	20.85	NA	6914.21
OW-63	12/08/2020	ND	20.97	NA	6914.09
OW-64	3/04/2020	ND	7.50	NA	6939.90
OW-64	6/30/2020	ND	8.35	NA	6939.05
OW-64	9/14/2020	ND	7.95	NA	6939.45
OW-64	11/09/2020	ND	8.18	NA	6939.22
OW-64	12/07/2020	ND	8.26	NA	6939.14
OW-65	3/04/2020	23.83	30.08	6.25	6923.97
OW-65	6/29/2020	24.08	31.41	7.33	6922.64
OW-65	9/14/2020	24.70	30.76	6.06	6923.29
OW-65	11/09/2020	25.05	32.35	7.30	6921.70
OW-65	12/08/2020	25.79	31.95	6.16	6922.10
RW-1	3/04/2020	NA	NA	NA	NA
RW-1	6/30/2020	28.25	29.50	1.25	6916.56
RW-1	9/19/2020	28.07	30.20	2.13	6915.86
RW-1	11/10/2020	29.50	30.33	0.83	6915.73
RW-1	12/08/2020	29.50	30.33	0.83	6915.73
RW-2	3/04/2020	NA	NA	NA	NA
RW-2	6/30/2020	20.66	21.00	0.34	6907.53
RW-2	9/19/2020	22.10	22.23	0.13	6906.30

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

Location	Date Measured	Depth to Product (ft-bmp)	Depth to Water (ft-bmp)	Product Thickness (ft)	Water Elevation (ft-msl)
Pot Surface - Chinle					
RW-2	11/09/2020	22.09	22.28	0.19	6906.25
RW-2	12/08/2020	22.20	22.38	0.18	6906.15
RW-5	3/04/2020	NA	NA	NA	NA
RW-5	6/30/2020	28.65	32.05	3.40	6911.52
RW-5	9/19/2020	29.59	32.81	3.22	6910.76
RW-5	11/09/2020	29.86	33.03	3.17	6910.54
RW-5	12/08/2020	33.15	39.51	6.36	6904.06
RW-6	3/04/2020	NA	NA	NA	NA
RW-6	6/30/2020	28.87	30.50	1.63	6913.51
RW-6	9/19/2020	29.72	32.64	2.92	6911.37
RW-6	11/09/2020	29.98	33.05	3.07	6910.96
RW-6	12/08/2020	30.18	33.31	3.13	6910.70
SMW-2	6/30/2020	ND	24.25	NA	6859.72
SMW-2	9/14/2020	ND	24.70	NA	6859.27
SMW-4	6/30/2020	ND	29.17	NA	6850.35
SMW-4	9/14/2020	ND	29.15	NA	6850.37
STP1-NW	3/03/2020	ND	20.27	NA	6884.20
STP1-NW	6/30/2020	ND	20.67	NA	6883.80
STP1-NW	12/08/2020	ND	20.78	NA	6883.69
STP1-SW	3/03/2020	NA	NA	NA	NA
STP1-SW	12/08/2020	NA	29.23	NA	6883.15
Pot Surface - Sonsela Wells					
BW-1C	9/14/2020	ND	13.89	NA	6871.79
BW-2C	9/14/2020	ND	21.32	NA	6853.98
BW-3C	9/14/2020	ND	8.52	NA	6869.43
BW-5C	3/05/2020	ND	2.80	NA	6874.05
BW-5C	6/26/2020	ND	3.38	NA	6873.47
BW-5C	9/14/2020	ND	4.36	NA	6872.49
BW-5C	12/07/2020	ND	4.27	NA	6872.58
MW-1	6/30/2020	ND	7.25	NA	6870.87
MW-1	9/14/2020	ND	7.72	NA	6870.40
MW-2	6/30/2020	ND	9.29	NA	6871.01
MW-2	9/14/2020	ND	9.74	NA	6870.56
MW-4	6/30/2020	ND	7.50	NA	6874.13
MW-4	9/14/2020	ND	8.00	NA	6873.63
MW-5	6/30/2020	ND	11.46	NA	6871.37
MW-5	9/14/2020	ND	11.99	NA	6870.84
OW-01	3/09/2020	ND	1.70	NA	6864.92
OW-01	6/30/2020	ND	1.60	NA	6865.02
OW-01	9/15/2020	ND	1.45	NA	6865.17
OW-01	12/07/2020	ND	1.75	NA	6864.87

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

Location	Date Measured	Depth to Product (ft-bmp)	Depth to Water (ft-bmp)	Product Thickness (ft)	Water Elevation (ft-msl)
Pot Surface - Sonsela Wells					
OW-10	3/04/2020	ND	5.43	NA	6869.48
OW-10	6/30/2020	ND	6.75	NA	6868.16
OW-10	9/20/2020	ND	7.70	NA	6867.21
OW-10	10/09/2020	ND	7.70	NA	6867.21
OW-10	12/07/2020	ND	7.61	NA	6867.30
OW-11	9/15/2020	ND	18.51	NA	6905.00
OW-12	6/30/2020	ND	Dry	NA	Dry
OW-12	9/14/2020	ND	46.45	NA	6894.24
OW-12	11/09/2020	ND	46.49	NA	6894.20
OW-13	3/02/2020	ND	19.91	NA	6900.16
OW-13	6/30/2020	ND	22.16	NA	6897.91
OW-13	9/14/2020	ND	20.99	NA	6899.08
OW-13	11/09/2020	ND	20.38	NA	6899.69
OW-13	12/07/2020	ND	20.24	NA	6899.83

Notes:
ft- feet
ft-bmp - feet below measuring point
ft-msl - feet mean sea level
ND - not detected
NA - not applicable

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

Released to Imaging: 11/22/2022 10:55:50 AM

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 – SPH		NS – Dry	NS – Dry
	GWM-3	Q	NS – SPH		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*	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, beginning in 2008.

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

TABLE 4-2. VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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)
Eastern Boundary	OW-14	4Q2019 - 4Q2020	NS - Recovery Well in Place									
	OW-29	10/14/2019	*ND(5)*	ND(5)	*ND(10)*	*ND(5)*	*ND(5)*	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)*
		9/17/2020	*ND(5)*	ND(5)	*ND(10)*	*ND(5)*	*ND(5)*	ND(5)	ND(5)	ND(5)	*ND(10)*	*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)*
	OW-30	4Q2019 - 4Q2020	NS - Recovery Well in Place									
	OW-50	10/15/2019	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	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)
		9/17/2020	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
	OW-52	10/15/2019	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	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)
		9/17/2020	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
	OW-53	4Q2019 - 4Q2020	NS - Dry									
	OW-54	4Q2019 - 4Q2020	NS - Recovery Well in Place									
	OW-55	4Q2019 - 4Q2020	NS - Recovery Well in Place									
	OW-56	10/15/2019	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	0.58	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)
		9/21/2020	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	0.29 J	ND(1)	ND(1)	ND(1)	*ND(2)*	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)*
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)*
		3/5/2020	*ND(20)*	ND(20)	*ND(40)*	*ND(20)*	*ND(20)*	*ND(20)*	ND(20)	*ND(20)*	*ND(40)*	*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*
		12/23/2020	*ND(100)*	ND(100)	*ND(100)*	*ND(500)*	*ND(100)*	*ND(100)*	ND(100)	*ND(100)*	*ND(500)*	*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)*
		1Q2020	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*
		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*
	OW-58A	4Q2019	NS									
		3/6/2020	*ND(50)*	ND(50)	*ND(100)*	*ND(50)*	*ND(50)*	*ND(50)*	ND(50)	*ND(50)*	*ND(100)*	*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*
		12/23/2020	*ND(50)*	ND(50)	*ND(50)*	*ND(250)*	*ND(50)*	*ND(50)*	ND(50)	*ND(50)*	*ND(250)*	*ND(50)*
	OW-61	4Q2019 - 4Q2020	NS - SPH Present									
	OW-62	4Q2019 - 4Q2020	NS - SPH Present									
	OW-63	11/18/2019	*ND(20)*	ND(20)	*ND(40)*	*ND(20)*	*ND(20)*	*ND(20)*	ND(20)	*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)*
		9/16/2020	*ND(20)*	ND(20)	*ND(40)*	*ND(20)*	*ND(20)*	*ND(20)*	ND(20)	*ND(20)*	*ND(40)*	*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)*
	OW-64	11/18/2019	*ND(2)*	ND(2)	*ND(4)*	*ND(2)*	ND(2)	ND(2)	ND(2)	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)
		9/22/2020	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
	OW-65	4Q2019 - 4Q2020	NS - SPH Present									
	RW-1	4Q2019 - 3Q2020	NS - Recovery Well in Place									
		4Q2020	NS - SPH Present									
	RW-2	4Q2019 - 3Q2020	NS - Recovery Well in Place									
		4Q2020	NS - SPH Present									
	RW-5	4Q2019 - 3Q2020	NS - Recovery Well in Place									
		4Q2020	NS - SPH Present									
	RW-6	4Q2019 - 3Q2020	NS - Recovery Well in Place									
		4Q2020	NS - SPH Present									
	[a]NMED GW Cleanup Levels		NA	200	10	5	25	7	NA	NA	NA	70
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		5.74	8,000	0.757	2.75	27.5	284	NA	NA	0.00835	11.5
	[d]USEPA RSL Tap Water HQ 1.0		0.57	8,000	0.076	0.28	2.8	280	NA	7	0.00075	1.2

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	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)	1,4-Dichloro-benzene (µg/L)
Eastern Boundary	OW-14	4Q2019 - 4Q2020	NS - Recovery Well in Place									
	OW-29	10/14/2019	ND(5)	--	*ND(5)*	ND(5)	**2.1**	*ND(5)*	ND(5)	ND(5)	ND(5)	*ND(5)*
		2/24/2020	ND(5)	*ND(10)*	*ND(5)*	ND(5)	*ND(5)*	*ND(5)*	ND(5)	ND(5)	ND(5)	*ND(5)*
		9/17/2020	ND(5)	*ND(10)*	*ND(5)*	ND(5)	**1.3 J**	*ND(5)*	ND(5)	ND(5)	ND(5)	*ND(5)*
		12/9/2020	ND(20)	*ND(100)*	*ND(0.0203) UJ*	ND(20)	*ND(20)*	*ND(20)*	ND(20)	ND(20)	ND(20)	*ND(20)*
	OW-30	4Q2019 - 4Q2020	NS - Recovery Well in Place									
	OW-50	10/15/2019	ND(1)	--	*ND(1)*	ND(1)	**0.5**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		3/2/2020	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		9/17/2020	ND(1)	*ND(2)*	*ND(1)*	ND(1)	**0.38 J**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/9/2020	ND(1)	*ND(5)*	*ND(0.0195) UJ*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	OW-52	10/15/2019	ND(1)	--	*ND(1)*	ND(1)	**0.47**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		3/2/2020	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		9/17/2020	ND(1)	*ND(2)*	*ND(1)*	ND(1)	**0.35 J**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/9/2020	ND(1)	*ND(5)*	*ND(0.0197) UJ*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	OW-53	4Q2019 - 4Q2020	NS - Dry									
	OW-54	4Q2019 - 4Q2020	NS - Recovery Well in Place									
	OW-55	4Q2019 - 4Q2020	NS - Recovery Well in Place									
	OW-56	10/15/2019	ND(1)	--	*ND(1)*	ND(1)	**7.7**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		3/2/2020	ND(1)	*ND(2)*	*ND(1)*	ND(1)	**5.1**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		9/21/2020	1.2	*ND(2)*	*ND(1)*	ND(1)	**10**	*ND(1)*	1.6	ND(1)	ND(1)	*ND(1)*
		12/23/2020	**84.7**	*ND(10)*	*ND(0.0197)*	ND(2)	**22.9**	*ND(2)*	42.8	ND(2)	ND(2)	*ND(2)*
Tank Farm	OW-57	11/5/2019	ND(20)	--	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	ND(20)	ND(20)	ND(20)	*ND(20)*
		3/5/2020	ND(20)	*ND(40)*	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	ND(20)	ND(20)	ND(20)	*ND(20)*
		9/18/2020	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	*ND(50) UJ*
		12/23/2020	*ND(100)*	*ND(500) UJ*	*ND(0.0203)*	ND(100)	*ND(100)*	*ND(100)*	*ND(100)*	ND(100)	ND(100)	*ND(100)*
	OW-58	11/18/2019	16	--	*ND(50)*	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*
		1Q2020	NS									
		9/17/2020	*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	*ND(100) UJ*
		12/22/2020	*ND(200)*	*ND(1000) UJ*	*ND(0.0203) UJ*	ND(200)	*ND(200)*	*ND(200)*	*ND(200)*	ND(200)	ND(200) UJ	*ND(200)*
	OW-58A	4Q2019	NS									
		3/6/2020	**440**	*ND(100)*	*ND(50)*	ND(50)	*ND(50)*	*ND(50)*	**140**	ND(50)	ND(50)	*ND(50)*
		9/18/2020	**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	*ND(50) UJ*
		12/23/2020	**91.4**	*ND(250) UJ*	*ND(0.0198)*	ND(50)	*ND(50)*	*ND(50)*	ND(50)	ND(50)	ND(50)	*ND(50)*
	OW-61	4Q2019 - 4Q2020	NS - SPH Present									
	OW-62	4Q2019 - 4Q2020	NS - SPH Present									
	OW-63	11/18/2019	7.7	--	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	14	ND(20)	ND(20)	*ND(20)*
		3/4/2020	3.9 J	*ND(40)*	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	11 J	ND(20)	ND(20)	*ND(20)*
		9/16/2020	ND(20)	*ND(40)*	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	8.6 J	ND(20)	ND(20)	*ND(20)*
		12/11/2020	*ND(100)*	*ND(500)*	*ND(100)*	ND(100)	*ND(100)*	*ND(100)*	*ND(100)*	ND(100)	ND(100)	*ND(100)*
	OW-64	11/18/2019	55	--	*ND(2)*	ND(2)	*ND(2)*	*ND(2)*	3	ND(2)	ND(2)	*ND(2)*
		3/4/2020	**120**	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	7.1	ND(1)	ND(1)	*ND(1)*
		9/22/2020	**100**	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	5.7	ND(1)	ND(1)	*ND(1)*
		12/11/2020	**67.5**	*ND(5)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	5.68	ND(1)	ND(1)	*ND(1)*
	OW-65	4Q2019 - 4Q2020	NS - SPH Present									
	RW-1	4Q2019 - 3Q2020	NS - Recovery Well in Place									
		4Q2020	NS - SPH Present									
	RW-2	4Q2019 - 3Q2020	NS - Recovery Well in Place									
		4Q2020	NS - SPH Present									
	RW-5	4Q2019 - 3Q2020	NS - Recovery Well in Place									
		4Q2020	NS - SPH Present									
	RW-6	4Q2019 - 3Q2020	NS - Recovery Well in Place									
		4Q2020	NS - SPH Present									
	[a]NMED GW Cleanup Levels		NA	NA	0.05	600	5	5	NA	NA	NA	75
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	0.00334	0.0747	302	1.71	4.38	NA	NA	NA	4.82
	[d]USEPA RSL Tap Water HQ 1.0		56	0.00033	0.0075	300	0.17	0.85	60	NA	370	0.48

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	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)
Eastern Boundary	OW-14	4Q2019 - 4Q2020							NS - Recovery Well in Place						
	OW-29	10/14/2019	--	ND(10)	ND(50)	ND(5)	*ND(50)*	ND(5)	ND(50)	ND(50)	*ND(5)*	ND(5)	*ND(5)*	*ND(5)*	*ND(15)*
		2/24/2020	--	ND(10)	ND(50)	ND(5)	*ND(50)*	ND(5)	ND(50)	ND(50)	*ND(5)*	ND(5)	*ND(5)*	*ND(5)*	*ND(15)*
		9/17/2020	--	ND(10)	ND(50)	ND(5)	*ND(50)*	ND(5)	ND(50)	ND(50)	*ND(5)*	ND(5)	*ND(5)*	*ND(5)*	*ND(15)*
		12/9/2020	*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)*
	OW-30	4Q2019 - 4Q2020							NS - Recovery Well in Place						
	OW-50	10/15/2019	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		3/2/2020	--	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)
		9/17/2020	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		12/9/2020	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	*ND(1)*	--	*ND(1)*	*ND(5)*	ND(1)
	OW-52	10/15/2019	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		3/2/2020	--	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)
		9/17/2020	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		12/9/2020	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	*ND(1)*	--	*ND(1)*	*ND(5)*	ND(1)
	OW-53	4Q2019 - 4Q2020							NS - Dry						
	OW-54	4Q2019 - 4Q2020							NS - Recovery Well in Place						
	OW-55	4Q2019 - 4Q2020							NS - Recovery Well in Place						
	OW-56	10/15/2019	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	**1.1**	ND(1)	*ND(1)*	ND(1)	ND(3)
		3/2/2020	--	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)
		9/21/2020	--	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)
		12/23/2020	*ND(1)*	ND(2)	ND(50)	ND(2)	*ND(50)*	ND(2)	ND(50)	ND(50)	**547**	--	*ND(2)*	*ND(10)*	ND(2)
Tank Farm	OW-57	11/5/2019	--	ND(40)	ND(200)	ND(20)	*ND(200)*	ND(20)	ND(200)	50	**11000**	ND(20)	*ND(20)*	*ND(20)*	*ND(60)*
		3/5/2020	--	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)*
		9/18/2020	--	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*
		12/23/2020	--	ND(100)	ND(2500)	ND(100)	*ND(2500)*	ND(100)	*ND(2500)*	ND(2500)	**10400**	--	*ND(100)*	*ND(500) UJ*	*ND(100) UJ*
	OW-58	11/18/2019	--	ND(100)	ND(500)	ND(50)	*ND(500)*	ND(50)	ND(500)	ND(500)	**33000**	ND(50)	*ND(50)*	*ND(50)*	*ND(150)*
		1Q2020							NS						
		9/17/2020	--	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*
		12/22/2020	--	ND(200)	ND(5000)	ND(200)	*ND(5000)*	ND(200) UJ	*ND(5000)*	ND(5000)	**33000**	--	*ND(200) UJ*	*ND(1000) UJ*	*ND(200)*
	OW-58A	4Q2019							NS						
		3/6/2020	--	ND(100)	ND(500)	ND(50)	*ND(500)*	ND(50)	ND(500)	ND(500)	**9700**	ND(50)	*ND(50)*	*ND(50)*	*ND(150)*
		9/18/2020	--	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*
		12/23/2020	--	ND(50)	ND(1250)	ND(50)	*ND(1250)*	ND(50)	*ND(1250)*	ND(1250)	**6070**	--	*ND(50)*	*ND(250) UJ*	*ND(50) UJ*
	OW-61	4Q2019 - 4Q2020							NS - SPH Present						
	OW-62	4Q2019 - 4Q2020							NS - SPH Present						
	OW-63	11/18/2019	--	ND(40)	ND(200)	ND(20)	*ND(200)*	ND(20)	ND(200)	ND(200)	**8600**	ND(20)	*ND(20)*	*ND(20)*	*ND(60)*
		3/4/2020	--	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)*
		9/16/2020	--	ND(40)	ND(200)	ND(20)	*ND(200)*	ND(20)	ND(200)	ND(200)	**8500**	ND(20)	*ND(20)*	*ND(20)*	*ND(60)*
		12/11/2020	--	ND(100) UJ	ND(2500)	ND(100)	*ND(2500)*	ND(100)	*ND(2500)*	ND(2500)	**10000**	--	*ND(100)*	*ND(500) UJ*	*ND(100)*
	OW-64	11/18/2019	--	ND(4)	ND(20)	ND(2)	ND(20)	ND(2)	ND(20)	5	**13**	ND(2)	*ND(2)*	ND(2)	ND(6)
		3/4/2020	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	10 JB	**34**	ND(1)	*ND(1)*	ND(1)	ND(3)
		9/22/2020	--	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)
		12/11/2020	--	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	**13.5**	--	*ND(1)*	*ND(5) UJ*	ND(1)
	OW-65	4Q2019 - 4Q2020							NS - SPH Present						
	RW-1	4Q2019 - 3Q2020							NS - Recovery Well in Place						
		4Q2020							NS - SPH Present						
	RW-2	4Q2019 - 3Q2020							NS - Recovery Well in Place						
		4Q2020							NS - SPH Present						
	RW-5	4Q2019 - 3Q2020							NS - Recovery Well in Place						
		4Q2020							NS - SPH Present						
	RW-6	4Q2019 - 3Q2020							NS - Recovery Well in Place						
		4Q2020							NS - SPH Present						
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	5	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		4.59	NA	5,560	NA	NA	NA	1,240	14,100	4.55	NA	1.34	32.9	7.54
	[d]USEPA RSL Tap Water HQ 1.0		0.46	NA	5,600	240	38	250	6,300	14,000	0.46	62	0.13	3.3	7.5

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

Well Group	Location ID	Date Sampled	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)	Ethylbenzene (µg/L)
Eastern Boundary	OW-14	4Q2019 - 4Q2020	NS - Recovery Well in Place											
	OW-29	10/14/2019	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(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(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(20)*	ND(20)	ND(20)	*ND(20)*	ND(20) UJ	ND(20)	ND(100)	*ND(20)*	*ND(100)*	ND(20) UJ	*ND(20)*
	OW-30	4Q2019 - 4Q2020	NS - Recovery Well in Place											
	OW-50	10/15/2019	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		3/2/2020	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		9/17/2020	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/9/2020	ND(1)	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1)*	ND(5)	ND(1)	ND(1)
	OW-52	10/15/2019	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		3/2/2020	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		9/17/2020	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)	ND(1)
		12/9/2020	ND(1)	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1)*	ND(5)	ND(1)	ND(1)
	OW-53	4Q2019 - 4Q2020	NS - Dry											
	OW-54	4Q2019 - 4Q2020	NS - Recovery Well in Place											
	OW-55	4Q2019 - 4Q2020	NS - Recovery Well in Place											
	OW-56	10/15/2019	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		3/2/2020	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		9/21/2020	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	0.52 J
		12/23/2020	ND(2)	*ND(2)*	ND(2)	ND(2)	*ND(2)*	ND(2)	ND(2)	ND(10)	*ND(2)*	*ND(10) UJ*	ND(2)	***76.9***
Tank Farm	OW-57	11/5/2019	ND(200)	*ND(20)*	ND(20)	ND(40)	*ND(20)*	*ND(60)*	ND(20)	ND(20)	*ND(20)*	*ND(20)*	ND(20)	**540**
		3/5/2020	ND(200)	*ND(20)*	ND(20)	ND(40)	*ND(20)*	*ND(60)*	ND(20)	ND(20)	*ND(20)*	*ND(20)*	ND(20)	**550**
		9/18/2020	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	**550 J**
		12/23/2020	ND(100)	*ND(100)*	*ND(100)*	ND(100)	*ND(100)*	*ND(100)*	*ND(100)*	ND(500)	*ND(100) UJ*	*ND(500)*	ND(100)	**218**
	OW-58	11/18/2019	ND(500)	*ND(50)*	ND(50)	ND(100)	*ND(50)*	*ND(150)*	*ND(50)*	ND(50)	*ND(50)*	*ND(50)*	ND(50)	**1200**
		1Q2020	NS											
		9/17/2020	*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	**1300 J**
		12/22/2020	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*	**1060**
	OW-58A	4Q2019	NS											
		3/6/2020	ND(500)	*ND(50)*	ND(50)	ND(100)	*ND(50)*	*ND(150)*	*ND(50)*	ND(50)	*ND(50)*	*ND(50)*	ND(50)	**620**
		9/18/2020	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	**670 J**
		12/23/2020	ND(50)	*ND(50)*	ND(50)	ND(50)	*ND(50)*	*ND(50)*	*ND(50)*	ND(250)	*ND(50) UJ*	*ND(250)*	ND(50)	**203**
	OW-61	4Q2019 - 4Q2020	NS - SPH Present											
	OW-62	4Q2019 - 4Q2020	NS - SPH Present											
	OW-63	11/18/2019	ND(200)	*ND(20)*	ND(20)	ND(40)	*ND(20)*	*ND(60)*	ND(20)	ND(20)	*ND(20)*	*ND(20)*	ND(20)	**1100**
		3/4/2020	ND(200)	*ND(20)*	ND(20)	ND(40)	*ND(20)*	*ND(60)*	ND(20)	ND(20)	*ND(20)*	*ND(20)*	ND(20)	**1100**
		9/16/2020	ND(200)	*ND(20)*	ND(20)	ND(40)	*ND(20)*	*ND(60)*	ND(20)	ND(20)	*ND(20)*	*ND(20)*	ND(20)	**1200**
		12/11/2020	ND(100)	*ND(100)*	*ND(100)*	ND(100)	*ND(100)*	*ND(100)*	*ND(100)*	ND(500)	*ND(100)*	*ND(500)*	ND(100) UJ	**1320**
	OW-64	11/18/2019	ND(20)	*ND(2)*	ND(2)	ND(4)	*ND(2)*	ND(6)	ND(2)	ND(2)	*ND(2)*	ND(2)	ND(2)	**39**
		3/4/2020	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	**110**
		9/22/2020	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	**73**
		12/11/2020	ND(1)	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1)*	ND(5)	ND(1) UJ	**40.5**
	OW-65	4Q2019 - 4Q2020	NS - SPH Present											
	RW-1	4Q2019 - 3Q2020	NS - Recovery Well in Place											
		4Q2020	NS - SPH Present											
	RW-2	4Q2019 - 3Q2020	NS - Recovery Well in Place											
		4Q2020	NS - SPH Present											
	RW-5	4Q2019 - 3Q2020	NS - Recovery Well in Place											
		4Q2020	NS - SPH Present											
	RW-6	4Q2019 - 3Q2020	NS - Recovery Well in Place											
		4Q2020	NS - SPH Present											
	[a]NMED GW Cleanup Levels		NA	5	NA	NA	100	NA	70	NA	NA	NA	NA	700
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		810	4.55	77.6	20,900	2.29	20.3	36.5	NA	1.68	8	197	15
	[d]USEPA RSL Tap Water HQ 1.0		810	0.46	78	21,000	0.22	190	36	NA	0.87	8.3	200	1.5

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

Well Group	Location ID	Date Sampled	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)
Eastern Boundary	OW-14	4Q2019 - 4Q2020							NS - Recovery Well in Place						
	OW-29	10/14/2019	*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)
		2/24/2020	*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)
		9/17/2020	*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)
		12/9/2020	*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)
	OW-30	4Q2019 - 4Q2020							NS - Recovery Well in Place						
	OW-50	10/15/2019	*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)
		3/2/2020	*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)
		9/17/2020	*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)
		12/9/2020	*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)
	OW-52	10/15/2019	*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)
		3/2/2020	*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)
		9/17/2020	*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)
		12/9/2020	*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)
	OW-53	4Q2019 - 4Q2020							NS - Dry						
	OW-54	4Q2019 - 4Q2020							NS - Recovery Well in Place						
	OW-55	4Q2019 - 4Q2020							NS - Recovery Well in Place						
	OW-56	10/15/2019	*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)
		3/2/2020	*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)
		9/21/2020	*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)
		12/23/2020	*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)
Tank Farm	OW-57	11/5/2019	*ND(20)*	16	*ND(60)*	**92**	5.4	42	ND(20)	ND(20)	ND(20)	ND(20)	*ND(20)*	76	ND(20)
		3/5/2020	*ND(20)*	15 J	*ND(60)*	**89**	ND(60)	41	ND(20)	ND(20)	ND(20)	ND(20)	*ND(20)*	62	ND(20)
		9/18/2020	*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
		12/23/2020	*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)*
	OW-58	11/18/2019	*ND(50)*	26	*ND(150)*	**2100**	ND(150)	90	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	85	ND(50)
		1Q2020							NS						
		9/17/2020	*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*
		12/22/2020	*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)*
	OW-58A	4Q2019							NS						
		3/6/2020	*ND(50)*	35 J	*ND(150)*	**2800**	ND(150)	89	ND(50)	ND(50)	ND(50)	ND(50)	*ND(50)*	490	ND(50)
		9/18/2020	*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
		12/23/2020	*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)
	OW-61	4Q2019 - 4Q2020							NS - SPH Present						
	OW-62	4Q2019 - 4Q2020							NS - SPH Present						
	OW-63	11/18/2019	*ND(20)*	53	*ND(60)*	**32**	17	150	ND(20)	7.9	ND(20)	ND(20)	*ND(20)*	63	ND(20)
		3/4/2020	*ND(20)*	54	*ND(60)*	**33**	18 J	160	ND(20)	ND(20)	ND(20)	ND(20)	*ND(20)*	61	ND(20)
		9/16/2020	*ND(20)*	55	*ND(60)*	**30**	18 J	150	ND(20)	ND(20)	ND(20)	ND(20)	*ND(20)*	50	ND(20)
		12/11/2020	*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)*
	OW-64	11/18/2019	*ND(2)*	37	*ND(6)*	ND(2)	ND(6)	23	7.1	12	ND(2)	0.97	ND(2)	ND(2)	ND(2)
		3/4/2020	*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)
		9/22/2020	*ND(1)*	22	ND(3)	ND(1)	ND(3)	14	4.9	7.1	ND(1)	1.1	ND(1)	31	ND(1)
		12/11/2020	*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)
	OW-65	4Q2019 - 4Q2020							NS - SPH Present						
	RW-1	4Q2019 - 3Q2020							NS - Recovery Well in Place						
		4Q2020							NS - SPH Present						
	RW-2	4Q2019 - 3Q2020							NS - Recovery Well in Place						
		4Q2020							NS - SPH Present						
	RW-5	4Q2019 - 3Q2020							NS - Recovery Well in Place						
		4Q2020							NS - SPH Present						
	RW-6	4Q2019 - 3Q2020							NS - Recovery Well in Place						
		4Q2020							NS - SPH Present						
	[a]NMED GW Cleanup Levels		NA	NA	5	NA	NA	NA	NA	NA	100	NA	5	1,000	100
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		1.39	447	118	143	NA	NA	NA	NA	1,210	NA	113	1,090	93.2
	[d]USEPA RSL Tap Water HQ 1.0		0.14	450	11	14	1,000	660	NA	2,000	1,200	690	11	1,100	360

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

Well Group	Location ID	Date Sampled	trans-1,3- Dichloropropene (µg/L)	Trichloroethene (µg/L)	Trichlorofluoromethane (µg/L)	Vinyl Chloride (µg/L)	Xylenes, Total (µg/L)
Eastern Boundary	OW-14	4Q2019 - 4Q2020			NS - Recovery Well in Place		
	OW-29	10/14/2019	ND(5)	*ND(5)*	ND(5)	*ND(5)*	ND(7.5)
		2/24/2020	ND(5)	*ND(5)*	ND(5)	*ND(5)*	ND(7.5)
		9/17/2020	ND(5)	*ND(5)*	ND(5)	*ND(5)*	ND(7.5)
		12/9/2020	ND(100)	*ND(20)*	ND(20)	*ND(20)*	*ND(200)*
	OW-30	4Q2019 - 4Q2020			NS - Recovery Well in Place		
	OW-50	10/15/2019	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		3/2/2020	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		9/17/2020	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/9/2020	ND(5)	*ND(1)*	ND(1)	*ND(1)*	ND(10)
	OW-52	10/15/2019	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		3/2/2020	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		9/17/2020	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/9/2020	ND(5)	*ND(1)*	ND(1)	*ND(1)*	ND(10)
	OW-53	4Q2019 - 4Q2020			NS - Dry		
	OW-54	4Q2019 - 4Q2020			NS - Recovery Well in Place		
	OW-55	4Q2019 - 4Q2020			NS - Recovery Well in Place		
	OW-56	10/15/2019	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		3/2/2020	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		9/21/2020	ND(1)	*ND(1)*	ND(1)	*ND(1)*	45
		12/23/2020	ND(10)	*ND(2)*	ND(2) UJ	*ND(2)*	*469*
	OW-57	11/5/2019	ND(20)	*ND(20)*	ND(20)	*ND(20)*	130
		3/5/2020	ND(20)	*ND(20)*	ND(20)	*ND(20)*	130
		9/18/2020	ND(50) UJ	*ND(50) UJ*	ND(50) UJ	*ND(50) UJ*	140 J
		12/23/2020	ND(500) UJ	*ND(100)*	ND(100)	*ND(100)*	*ND(1000)*
	OW-58	11/18/2019	ND(50)	*ND(50)*	ND(50)	*ND(50)*	160
		1Q2020			NS		
		9/17/2020	ND(100) UJ	*ND(100) UJ*	ND(100) UJ	*ND(100) UJ*	160 J
		12/22/2020	ND(1000) UJ	*ND(200)*	ND(200)	*ND(200)*	*ND(2000) UJ*
	OW-58A	4Q2019			NS		
		3/6/2020	ND(50)	*ND(50)*	ND(50)	*ND(50)*	**1800**
		9/18/2020	ND(50) UJ	*ND(50) UJ*	ND(50) UJ	*ND(50) UJ*	**1100 J**
		12/23/2020	ND(250) UJ	*ND(50)*	ND(50)	*ND(50)*	*ND(500)*
	OW-61	4Q2019 - 4Q2020			NS - SPH Present		
	OW-62	4Q2019 - 4Q2020			NS - SPH Present		
	OW-63	11/18/2019	ND(20)	*ND(20)*	ND(20)	*ND(20)*	**260**
Tank Farm		3/4/2020	ND(20)	*ND(20)*	ND(20)	*ND(20)*	**230**
		9/16/2020	ND(20)	*ND(20)*	ND(20)	*ND(20)*	**210**
		12/11/2020	ND(500)	*ND(100)*	ND(100)	*ND(100)*	*ND(1000)*
	OW-64	11/18/2019	ND(2)	*ND(2)*	ND(2)	*ND(2)*	50
		3/4/2020	ND(1)	*ND(1)*	ND(1)	*ND(1)*	110
		9/22/2020	ND(1)	*ND(1)*	ND(1)	*ND(1)*	74
		12/11/2020	ND(5)	*ND(1)*	ND(1)	*ND(1)*	42.1
	OW-65	4Q2019 - 4Q2020			NS - SPH Present		
	RW-1	4Q2019 - 3Q2020			NS - Recovery Well in Place		
		4Q2020			NS - SPH Present		
	RW-2	4Q2019 - 3Q2020			NS - Recovery Well in Place		
		4Q2020			NS - SPH Present		
	RW-5	4Q2019 - 3Q2020			NS - Recovery Well in Place		
		4Q2020			NS - SPH Present		
	RW-6	4Q2019 - 3Q2020			NS - Recovery Well in Place		
		4Q2020			NS - SPH Present		
	[a]NMED GW Cleanup Levels		NA	5	NA	2	620
	[b]40 CFR 141.62		NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	2.59	1,140	0.324	193
	[d]USEPA RSL Tap Water HQ 1.0		NA	0.49	5,200	0.019	190

Released to Imaging: 11/22/2022 10:55:50 AM

TABLE 4-2. VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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)
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-02	11/19/2019	*ND(5)*	ND(5)	*ND(10)*	*ND(5)*	**15**	1.4	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)*
		9/21/2020	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	**21**	1.4	ND(1)	ND(1)	*ND(2)*	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)*
	MKTF-03	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-04	10/30/2019	*ND(5)*	ND(5)	*ND(10)*	*ND(5)*	**5.5**	**7.3**	ND(5)	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)*
		3Q2020 - 4Q2020					NS - SPH Present					
	MKTF-05	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-06	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-07	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-08	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-09	11/18/19	*ND(10)*	14	*ND(20)*	*ND(10)*	**11**	**15**	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)*
		3Q2020 - 4Q2020					NS - SPH Present					
	MKTF-10	10/30/19	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	**31**	5.9	ND(10)	*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)*
		3Q2020					NS - SPH Present					
		12/18/20	*ND(25)*	ND(25)	*ND(25)*	*ND(125)*	**40**	*ND(25)*	ND(25)	*ND(25)*	*ND(125) UJ*	*ND(25)*
	MKTF-11	10/30/19	*ND(20)*	ND(20)	*ND(40)*	*ND(20)*	**27**	*ND(20)*	ND(20)	*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)*
		3Q2020 - 4Q2020					NS - SPH Present					
	MKTF-12	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-13	10/29/19	*ND(20)*	ND(20)	*ND(40)*	*ND(20)*	*ND(20)*	*ND(20)*	ND(20)	*ND(20)*	--	*ND(20)*
		1Q2020 - 4Q2020					NS - SPH Present					
	MKTF-14	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-15	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-16	10/30/19	*ND(100)*	ND(100)	*ND(200)*	*ND(100)*	**69**	*ND(100)*	ND(100)	*ND(100)*	--	*ND(100)*
		1Q2020 - 3Q2020					NS - SPH Present					
		12/23/20	*ND(100)*	ND(100)	*ND(100)*	*ND(500)*	*ND(100)*	*ND(100)*	ND(100)	*ND(100)*	*ND(500)*	*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)*
		1Q2020 - 4Q2020					NS - SPH Present					
	MKTF-18	10/29/19	*ND(2)*	ND(2)	*ND(4)*	*ND(2)*	ND(2)	0.76	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)*
		3Q2020					NS - SPH Present					
		12/16/20	*ND(2)*	ND(2)	*ND(2)*	*ND(10)*	ND(2)	ND(2)	ND(2)	ND(2)	*ND(10)*	*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)*
		1Q2020 - 4Q2020					NS - SPH Present					
	MKTF-20	11/05/19	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)	*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)*
		3Q2020 - 4Q2020					NS - SPH Present					
	MKTF-21	11/05/19	*ND(20)*	ND(20)	*ND(40)*	*ND(20)*	*ND(20)*	*ND(20)*	ND(20)	*ND(20)*	--	*ND(20)*
		02/05/20	*ND(5)*	ND(5)	*ND(10)*	*ND(5)*	*ND(5)*	ND(5)	ND(5)	ND(5)	*ND(10)*	*ND(5)*
		3Q2020 - 4Q2020					NS - SPH Present					
	MKTF-22	10/24/19	*ND(20)*	ND(20)	*ND(40)*	*ND(20)*	**13**	**13**	ND(20)	*ND(20)*	--	*ND(20)*
		1Q2020 - 4Q2020					NS - SPH Present					
	MKTF-23	10/29/19	*ND(100)*	18	*ND(200)*	*ND(100)*	**61**	**42**	ND(100)	*ND(100)*	--	*ND(100)*
		1Q2020 - 4Q2020					NS - SPH Present					
	MKTF-24	10/23/19	*ND(20)*	ND(20)	*ND(40)*	*ND(20)*	**33**	**11**	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)*
		09/19/20	*ND(20)*	ND(20)	*ND(40)*	*ND(20)*	**41**	6.1 J	ND(20)	*ND(20)*	*ND(40)*	*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)*
	MKTF-25	10/23/19	*ND(5)*	ND(5)	*ND(10)*	**1.5**	**110**	**59**	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)*
		3Q2020					NS - SPH Present					
		12/18/20	*ND(5)*	ND(5)	*ND(5)*	*ND(25)*	**91.8**	**61.3**	ND(5)	ND(5)	*ND(25) UJ*	*ND(5)*
	MKTF-26	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-27	10/23/19	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	1.1	0.4	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)
		09/20/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	1.3	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
	MKTF-28	10/22/19	*ND(1)*	ND(1)	*ND(2)*	*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)
		09/20/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
	[a]NMED GW Cleanup Levels		NA	200	10	5	25	7	NA	NA	NA	70
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		5.74	8,000	0.757	2.75	27.5	284	NA	NA	0.00835	11.5
	[d]USEPA RSL Tap Water HQ 1.0		0.57	8,000	0.076	0.28	2.8	280	NA	7	0.00075	1.2

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	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)	1,4-Dichloro-benzene (µg/L)
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-02	11/19/2019	8.6	--	*ND(5)*	ND(5)	**4.7**	*ND(5)*	ND(5)	ND(5)	ND(5)	*ND(5)*
		2/25/2020	**60**	*ND(10)*	*ND(5)*	ND(5)	**2 J**	*ND(5)*	3.2 J	ND(5)	ND(5)	*ND(5)*
		9/21/2020	37	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	1.6	ND(1)	ND(1)	*ND(1)*
		12/18/2020	25.7	*ND(25)*	*ND(5)*	ND(5)	**34**	*ND(5)*	ND(5)	ND(5)	ND(5)	*ND(5)*
	MKTF-03	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-04	10/30/2019	**410**	--	*ND(5)*	ND(5)	*ND(5)*	*ND(5)*	**79**	ND(5)	ND(5)	*ND(5)*
		3/3/2020	**380**	*ND(10)*	*ND(5)*	ND(5)	**2.3 J**	*ND(5)*	58	ND(5)	ND(5)	*ND(5)*
		3Q2020 - 4Q2020					NS - SPH Present					
	MKTF-05	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-06	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-07	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-08	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-09	11/18/19	**88**	--	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*
		03/03/20	**96**	*ND(40)*	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	ND(20)	ND(20)	ND(20)	*ND(20)*
		3Q2020 - 4Q2020					NS - SPH Present					
	MKTF-10	10/30/19	**760**	--	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	**200**	ND(10)	ND(10)	*ND(10)*
		03/03/20	**950**	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	**220**	ND(10)	ND(10)	*ND(10)*
		3Q2020					NS - SPH Present					
		12/18/20	**1070**	*ND(125) UJ*	*ND(25)*	ND(25)	*ND(25)*	*ND(25)*	**246**	ND(25)	ND(25)	*ND(25)*
	MKTF-11	10/30/19	**300**	--	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	55	ND(20)	ND(20)	*ND(20)*
		03/03/20	**180**	*ND(40)*	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	35	ND(20)	ND(20)	*ND(20)*
		3Q2020 - 4Q2020					NS - SPH Present					
	MKTF-12	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-13	10/29/19	**350**	--	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	**100**	ND(20)	ND(20)	*ND(20)*
		1Q2020 - 4Q2020					NS - SPH Present					
	MKTF-14	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-15	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-16	10/30/19	**380**	--	*ND(100)*	ND(100)	*ND(100)*	*ND(100)*	*ND(100)*	ND(100)	ND(100)	*ND(100)*
		1Q2020 - 3Q2020					NS - SPH Present					
		12/23/20	**236**	*ND(500)*	*ND(100)*	ND(100)	*ND(100)*	*ND(100)*	*ND(100)*	ND(100)	ND(100)	*ND(100)*
	MKTF-17	10/29/19	**150**	--	*ND(5)*	ND(5)	*ND(5)*	*ND(5)*	38	ND(5)	ND(5)	*ND(5)*
		1Q2020 - 4Q2020					NS - SPH Present					
	MKTF-18	10/29/19	ND(2)	--	*ND(2)*	ND(2)	*ND(2)*	*ND(2)*	ND(2)	ND(2)	ND(2)	*ND(2)*
		02/06/20	ND(2)	*ND(4)*	*ND(2)*	ND(2)	*ND(2)*	*ND(2)*	ND(2)	ND(2)	ND(2)	*ND(2)*
		3Q2020					NS - SPH Present					
		12/16/20	ND(2)	*ND(10)*	*ND(0.0193) UJ*	ND(2)	*ND(2)*	*ND(2)*	ND(2)	ND(2)	ND(2)	*ND(2)*
	MKTF-19	10/29/19	**480**	--	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	**86**	ND(20)	ND(20)	*ND(20)*
		1Q2020 - 4Q2020					NS - SPH Present					
	MKTF-20	11/05/19	**190**	--	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	31	ND(10)	ND(10)	*ND(10)*
		02/05/20	**170**	*ND(20)*	*ND(10)*	ND(10)	*ND(5)*	*ND(10)*	49	ND(10)	ND(10)	*ND(10)*
		3Q2020 - 4Q2020					NS - SPH Present					
	MKTF-21	11/05/19	**1100**	--	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	26	ND(20)	ND(20)	*ND(20)*
		02/05/20	6.8	*ND(10)*	*ND(5)*	ND(5)	*ND(5)*	*ND(5)*	ND(5)	ND(5)	ND(5)	*ND(5)*
		3Q2020 - 4Q2020					NS - SPH Present					
	MKTF-22	10/24/19	ND(20)	--	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	ND(20)	ND(20)	ND(20)	*ND(20)*
		1Q2020 - 4Q2020					NS - SPH Present					
	MKTF-23	10/29/19	**910**	--	*ND(100)*	ND(100)	*ND(100)*	*ND(100)*	**260**	ND(100)	ND(100)	*ND(100)*
		1Q2020 - 4Q2020					NS - SPH Present					
	MKTF-24	10/23/19	5.3	--	*ND(20)*	ND(20)	**9.3**	*ND(20)*	ND(20)	ND(20)	ND(20)	*ND(20)*
		02/25/20	ND(20)	*ND(40)*	*ND(20)*	ND(20)	**10 J**	*ND(20)*	ND(20)	ND(20)	ND(20)	*ND(20)*
		09/19/20	ND(20)	*ND(40)*	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	ND(20)	ND(20)	ND(20)	*ND(20)*
		12/18/20	ND(25)	*ND(125)*	*ND(25)*	ND(25)	**163**	*ND(25)*	ND(25)	ND(25)	ND(25)	*ND(25)*
	MKTF-25	10/23/19	1.3	--	*ND(5)*	ND(5)	**9.1**	*ND(5)*	ND(5)	ND(5)	ND(5)	*ND(5)*
		02/27/20	ND(5)	*ND(10)*	*ND(5)*	ND(5)	**8.8**	*ND(5)*	ND(5)	ND(5)	ND(5)	*ND(5)*
		3Q2020					NS - SPH Present					
		12/18/20	ND(5)	*ND(25)*	*ND(5)*	ND(5)	**32.1**	*ND(5)*	ND(5)	ND(5)	ND(5)	*ND(5)*
	MKTF-26	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-27	10/23/19	ND(1)	--	*ND(1)*	ND(1)	**0.53**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		02/25/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/20/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	**0.39 J**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/18/20	ND(1)	*ND(5)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	MKTF-28	10/22/19	ND(1)	--	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		02/25/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/20/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/18/20	ND(1)	*ND(5)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	[a]NMED GW Cleanup Levels		NA	NA	0.05	600	5	5	NA	NA	NA	75
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	0.00334	0.0747	302	1.71	4.38	NA	NA	NA	4.82
	[d]USEPA RSL Tap Water HQ 1.0		56	0.00033	0.0075	300	0.17	0.85	60	NA	370	0.48

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	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)
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020							NS - SPH Present						
	MKTF-02	11/19/2019	--	ND(10)	ND(50)	ND(5)	*ND(50)*	ND(5)	ND(50)	ND(50)	**360**	ND(5)	*ND(5)*	*ND(5)*	*ND(15)*
		2/25/2020	--	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)*
		9/21/2020	--	ND(2)	4.3 J	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	**4000**	ND(1)	*ND(1)*	ND(1)	*ND(15)*
		12/18/2020	--	ND(5) UJ	ND(125)	ND(5)	*ND(125)*	ND(5)	ND(125)	ND(125)	**885**	--	*ND(5)*	*ND(25)*	ND(5)
	MKTF-03	4Q2019 - 4Q2020							NS - SPH Present						
	MKTF-04	10/30/2019	--	ND(10)	ND(50)	ND(5)	*ND(50)*	ND(5)	ND(50)	ND(50)	**930**	ND(5)	*ND(5)*	*ND(5)*	*ND(15)*
		3/3/2020	--	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)*
		3Q2020 - 4Q2020							NS - SPH Present						
	MKTF-05	4Q2019 - 4Q2020							NS - SPH Present						
	MKTF-06	4Q2019 - 4Q2020							NS - SPH Present						
	MKTF-07	4Q2019 - 4Q2020							NS - SPH Present						
	MKTF-08	4Q2019 - 4Q2020							NS - SPH Present						
	MKTF-09	11/18/19	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	ND(100)	**3700**	ND(10)	*ND(10)*	*ND(10)*	*ND(30)*
		03/03/20	--	ND(40)	ND(200)	ND(20)	*ND(200)*	ND(20)	ND(200)	ND(200)	**3300**	ND(20)	*ND(20)*	*ND(20)*	*ND(60)*
		3Q2020 - 4Q2020							NS - SPH Present						
	MKTF-10	10/30/19	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	ND(100)	**5500**	ND(10)	*ND(10)*	*ND(10)*	*ND(30)*
		03/03/20	--	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)*
		3Q2020							NS - SPH Present						
		12/18/20	--	ND(25) UJ	ND(625)	ND(25)	*ND(625)*	ND(25)	ND(625)	ND(625)	**4670**	--	*ND(25)*	*ND(125)*	*ND(25)*
	MKTF-11	10/30/19	--	ND(40)	ND(200)	ND(20)	*ND(200)*	ND(20)	ND(200)	ND(200)	**13000**	ND(20)	*ND(20)*	*ND(20)*	*ND(60)*
		03/03/20	--	ND(40)	ND(200)	ND(20)	*ND(200)*	ND(20)	ND(200)	ND(200)	**6000**	ND(20)	*ND(20)*	*ND(20)*	*ND(60)*
		3Q2020 - 4Q2020							NS - SPH Present						
	MKTF-12	4Q2019 - 4Q2020							NS - SPH Present						
	MKTF-13	10/29/19	--	ND(40)	ND(200)	ND(20)	*ND(200)*	ND(20)	ND(200)	ND(200)	**4700**	ND(20)	*ND(20)*	*ND(20)*	*ND(60)*
		1Q2020 - 4Q2020							NS - SPH Present						
	MKTF-14	4Q2019 - 4Q2020							NS - SPH Present						
	MKTF-15	4Q2019 - 4Q2020							NS - SPH Present						
	MKTF-16	10/30/19	--	ND(200)	ND(1000)	ND(100)	*ND(1000)*	ND(100)	ND(1000)	ND(1000)	**15000**	*ND(100)*	*ND(100)*	*ND(100)*	*ND(300)*
		1Q2020 - 3Q2020							NS - SPH Present						
		12/23/20	**19.4**	ND(100)	ND(2500)	ND(100)	*ND(2500)*	ND(100)	*ND(2500)*	ND(2500)	**14700**	--	*ND(100)*	*ND(500)*	*ND(100)*
	MKTF-17	10/29/19	--	ND(10)	ND(50)	ND(5)	8	ND(5)	4.4	ND(50)	**12000**	ND(5)	*ND(5)*	*ND(5)*	*ND(15)*
		1Q2020 - 4Q2020							NS - SPH Present						
	MKTF-18	10/29/19	--	ND(4)	ND(20)	ND(2)	ND(20)	ND(2)	ND(20)	ND(20)	**160**	ND(2)	*ND(2)*	ND(2)	ND(6)
		02/06/20	--	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)
		3Q2020							NS - SPH Present						
		12/16/20	--	ND(2)	ND(50)	ND(2)	*ND(50)*	ND(2)	ND(50)	ND(50)	**371**	--	*ND(2)*	*ND(10)*	ND(2) UJ
	MKTF-19	10/29/19	--	ND(40)	ND(200)	ND(20)	*ND(200)*	ND(20)	ND(200)	ND(200)	**1600**	ND(20)	*ND(20)*	*ND(20)*	*ND(60)*
		1Q2020 - 4Q2020							NS - SPH Present						
	MKTF-20	11/05/19	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	33	**2400**	ND(10)	*ND(10)*	*ND(10)*	*ND(30)*
		02/05/20	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	19 J	**620 J-**	ND(10)	*ND(10)*	*ND(10)*	*ND(30)*
		3Q2020 - 4Q2020							NS - SPH Present						
	MKTF-21	11/05/19	--	ND(40)	ND(200)	ND(20)	*ND(200)*	ND(20)	ND(200)	ND(200)	**5600**	ND(20)	*ND(20)*	*ND(20)*	*ND(60)*
		02/05/20	--	ND(10)	ND(50)	ND(5)	*ND(50)*	ND(5)	5.2 J	22 J	**58**	ND(5)	*ND(5)*	*ND(5)*	*ND(15)*
		3Q2020 - 4Q2020							NS - SPH Present						
	MKTF-22	10/24/19	--	ND(40)	ND(200)	ND(20)	*ND(200)*	ND(20)	ND(200)	ND(200)	**3400**	ND(20)	*ND(20)*	*ND(20)*	*ND(60)*
		1Q2020 - 4Q2020							NS - SPH Present						
	MKTF-23	10/29/19	--	ND(200)	ND(1000)	ND(100)	*ND(1000)*	ND(100)	ND(1000)	ND(1000)	**4800**	*ND(100)*	*ND(100)*	*ND(100)*	*ND(300)*
		1Q2020 - 4Q2020							NS - SPH Present						
	MKTF-24	10/23/19	--	ND(40)	ND(200)	ND(20)	*ND(200)*	ND(20)	ND(200)	ND(200)	**5000**	ND(20)	*ND(20)*	*ND(20)*	*ND(60)*
		02/25/20	--	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)*
		09/19/20	--	ND(40)	ND(200)	ND(20)	*ND(200)*	ND(20)	ND(200)	ND(200)	**6100**	ND(20)	*ND(20)*	*ND(20)*	*ND(60)*
		12/18/20	--	ND(25) UJ	ND(625)	ND(25)	*ND(625)*	ND(25)	ND(625)	ND(625)	**5020**	--	*ND(25)*	*ND(125)*	*ND(25)*
	MKTF-25	10/23/19	--	ND(10)	ND(50)	ND(5)	*ND(50)*	ND(5)	ND(50)	ND(50)	**370**	ND(5)	*ND(5)*	*ND(5)*	*ND(15)*
		02/27/20	--	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)*
		3Q2020							NS - SPH Present						
		12/18/20	--	ND(5) UJ	ND(125)	ND(5)	*ND(125)*	ND(5)	ND(125)	211	**629**	--	*ND(5)*	*ND(25)*	ND(5)
	MKTF-26	4Q2019 - 4Q2020							NS - SPH Present						
	MKTF-27	10/23/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	2.2	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		02/25/20	--	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)
		09/20/20	--	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)
		12/18/20	--	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	*ND(1)*	--	*ND(1)*	*ND(5)*	ND(1)
	MKTF-28	10/22/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		02/25/20	--	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)
		09/20/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		12/18/20	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	*ND(1)*	--	*ND(1)*	*ND(5)*	ND(1) UJ
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	5	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		4.59	NA	5,560	NA	NA	NA	1,240	14,100	4.55	NA	1.34	32.9	7.54
	[d]USEPA RSL Tap Water HQ 1.0		0.46	NA	5,600	240	38	250	6,300	14,000	0.46	62	0.13	3.3	7.5

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	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)	Ethylbenzene (µg/L)
	MKTF-01	4Q2019 - 4Q2020							NS - SPH Present					
	MKTF-02	11/19/2019	ND(50)	*ND(5)*	ND(5)	ND(10)	*ND(5)*	ND(15)	3.1	ND(5)	*ND(5)*	ND(5)	ND(5)	**46**
		2/25/2020	ND(50)	*ND(5)*	ND(5)	ND(10)	*ND(5)*	ND(15)	ND(5)	ND(5)	*ND(5)*	ND(5)	ND(5)	**570**
		9/21/2020	ND(10)	*ND(1)*	ND(1)	16	*ND(1)*	ND(3)	1.9	ND(1)	*ND(1)*	ND(1)	ND(1)	**520**
		12/18/2020	ND(5)	*ND(5)*	ND(5)	ND(5)	*ND(5)*	ND(5)	ND(5)	ND(25)	*ND(5)*	*ND(25)*	ND(5)	**161**
	MKTF-03	4Q2019 - 4Q2020							NS - SPH Present					
	MKTF-04	10/30/2019	ND(50)	*ND(5)*	ND(5)	ND(10)	*ND(5)*	ND(15)	ND(5)	ND(5)	*ND(5)*	ND(5)	ND(5)	**710**
		3/3/2020	ND(50)	*ND(5)*	ND(5)	ND(10)	*ND(5)*	ND(15)	ND(5)	ND(5)	*ND(5)*	ND(5)	ND(5)	**470**
		3Q2020 - 4Q2020							NS - SPH Present					
	MKTF-05	4Q2019 - 4Q2020							NS - SPH Present					
	MKTF-06	4Q2019 - 4Q2020							NS - SPH Present					
	MKTF-07	4Q2019 - 4Q2020							NS - SPH Present					
	MKTF-08	4Q2019 - 4Q2020							NS - SPH Present					
	MKTF-09	11/18/19	ND(100)	*ND(10)*	ND(10)	ND(20)	*ND(10)*	*ND(30)*	11	ND(10)	*ND(10)*	*ND(10)*	ND(10)	**230**
		03/03/20	ND(200)	*ND(20)*	ND(20)	ND(40)	*ND(20)*	*ND(60)*	21	ND(20)	*ND(20)*	*ND(20)*	ND(20)	**190**
		3Q2020 - 4Q2020							NS - SPH Present					
	MKTF-10	10/30/19	ND(100)	*ND(10)*	ND(10)	ND(20)	*ND(10)*	*ND(30)*	**39**	ND(10)	*ND(10)*	*ND(10)*	ND(10)	**1700**
		03/03/20	ND(100)	*ND(10)*	ND(10)	ND(20)	*ND(10)*	*ND(30)*	**41**	ND(10)	*ND(10)*	*ND(10)*	ND(10)	**1700**
		3Q2020							NS - SPH Present					
		12/18/20	104	*ND(25)*	ND(25)	ND(25)	*ND(25)*	*ND(25)*	ND(25)	ND(125)	*ND(25)*	*ND(125) UJ*	ND(25)	**1800**
	MKTF-11	10/30/19	ND(200)	*ND(20)*	ND(20)	ND(40)	*ND(20)*	*ND(60)*	ND(20)	ND(20)	*ND(20)*	*ND(20)*	ND(20)	**850**
		03/03/20	ND(200)	*ND(20)*	ND(20)	ND(40)	*ND(20)*	*ND(60)*	ND(20)	ND(20)	*ND(20)*	*ND(20)*	ND(20)	**320**
		3Q2020 - 4Q2020							NS - SPH Present					
	MKTF-12	4Q2019 - 4Q2020							NS - SPH Present					
	MKTF-13	10/29/19	ND(200)	*ND(20)*	ND(20)	ND(40)	*ND(20)*	*ND(60)*	ND(20)	ND(20)	*ND(20)*	*ND(20)*	ND(20)	**600**
		1Q2020 - 4Q2020							NS - SPH Present					
	MKTF-14	4Q2019 - 4Q2020							NS - SPH Present					
	MKTF-15	4Q2019 - 4Q2020							NS - SPH Present					
	MKTF-16	10/30/19	*ND(1000)*	*ND(100)*	*ND(100)*	ND(200)	*ND(100)*	*ND(300)*	*ND(100)*	ND(100)	*ND(100)*	*ND(100)*	ND(100)	**1500**
		1Q2020 - 3Q2020							NS - SPH Present					
		12/23/20	ND(100)	*ND(100)*	*ND(100)*	ND(100)	*ND(100)*	*ND(100)*	*ND(100)*	ND(500)	*ND(100)*	*ND(500) UJ*	ND(100)	**1320**
	MKTF-17	10/29/19	ND(50)	*ND(5)*	ND(5)	ND(10)	*ND(5)*	ND(15)	ND(5)	ND(5)	*ND(5)*	ND(5)	ND(5)	**1100**
Marketing Tank Farm Area		1Q2020 - 4Q2020							NS - SPH Present					
	MKTF-18	10/29/19	ND(20)	*ND(2)*	ND(2)	ND(4)	*ND(2)*	ND(6)	ND(2)	ND(2)	*ND(2)*	ND(2)	ND(2)	0.83
		02/06/20	ND(20)	*ND(2)*	ND(2)	ND(4)	*ND(2)*	ND(6)	2.3	ND(2)	*ND(2)*	ND(2)	ND(2)	*ND(2)*
		3Q2020							NS - SPH Present					
		12/16/20	ND(2)	*ND(2)*	ND(2)	ND(2)	*ND(2)*	ND(2)	ND(2)	ND(10)	*ND(2)*	*ND(10)*	ND(2)	*ND(2)*
	MKTF-19	10/29/19	ND(200)	*ND(20)*	ND(20)	ND(40)	*ND(20)*	*ND(60)*	ND(20)	ND(20)	*ND(20)*	*ND(20)*	ND(20)	**610**
		1Q2020 - 4Q2020							NS - SPH Present					
	MKTF-20	11/05/19	ND(100)	*ND(10)*	ND(10)	ND(20)	*ND(10)*	*ND(30)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	**260**
		02/05/20	ND(100)	*ND(10)*	ND(10)	ND(20)	*ND(10)*	*ND(30)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	**58**
		3Q2020 - 4Q2020							NS - SPH Present					
	MKTF-21	11/05/19	ND(200)	*ND(20)*	ND(20)	ND(40)	*ND(20)*	*ND(60)*	ND(20)	ND(20)	*ND(20)*	*ND(20)*	ND(20)	**1100**
		02/05/20	ND(50)	*ND(5)*	ND(5)	ND(10)	**9.7**	ND(15)	ND(5)	ND(5)	*ND(5)*	ND(5)	ND(5)	**2.6 J**
		3Q2020 - 4Q2020							NS - SPH Present					
	MKTF-22	10/24/19	ND(200)	*ND(20)*	ND(20)	ND(40)	*ND(20)*	*ND(60)*	ND(20)	ND(20)	*ND(20)*	*ND(20)*	ND(20)	**270**
		1Q2020 - 4Q2020							NS - SPH Present					
	MKTF-23	10/29/19	*ND(1000)*	*ND(100)*	*ND(100)*	ND(200)	*ND(100)*	*ND(300)*	*ND(100)*	ND(100)	*ND(100)*	*ND(100)*	ND(100)	**1200**
		1Q2020 - 4Q2020							NS - SPH Present					
	MKTF-24	10/23/19	ND(200)	*ND(20)*	ND(20)	ND(40)	*ND(20)*	*ND(60)*	ND(20)	ND(20)	*ND(20)*	*ND(20)*	ND(20)	**310**
		02/25/20	ND(200)	*ND(20)*	ND(20)	ND(40)	*ND(20)*	*ND(60)*	ND(20)	ND(20)	*ND(20)*	*ND(20)*	ND(20)	**83**
		09/19/20	ND(200)	*ND(20)*	ND(20)	27 J	*ND(20)*	*ND(60)*	ND(20)	ND(20)	*ND(20)*	*ND(20)*	ND(20)	**240**
		12/18/20	ND(25)	*ND(25)*	ND(25)	ND(25)	*ND(25)*	*ND(25)*	ND(25)	ND(125)	*ND(25)*	*ND(125)*	ND(25)	**223**
	MKTF-25	10/23/19	ND(50)	*ND(5)*	ND(5)	ND(10)	*ND(5)*	ND(15)	27	ND(5)	*ND(5)*	ND(5)	ND(5)	0.81
		02/27/20	ND(50)	*ND(5)*	ND(5)	ND(10)	*ND(5)*	ND(15)	27	ND(5)	*ND(5)*	ND(5)	ND(5)	*ND(5)*
		3Q2020							NS - SPH Present					
		12/18/20	ND(5)	*ND(5)*	ND(5)	ND(5)	*ND(5)*	ND(5)	14.9	ND(25)	*ND(5)*	*ND(25)*	ND(5)	*ND(5)*
	MKTF-26	4Q2019 - 4Q2020							NS - SPH Present					
	MKTF-27	10/23/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		02/25/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/20/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/18/20	ND(1)	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1)*	ND(1)	ND(1)	ND(1)
	MKTF-28	10/22/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		02/25/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/20/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/18/20	ND(1)	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5) UJ	*ND(1)*	ND(5)	ND(1) UJ	ND(1)
	[a]NMED GW Cleanup Levels		NA	5	NA	NA	100	NA	70	NA	NA	NA	NA	700
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		810	4.55	77.6	20,900	2.29	20.3	36.5	NA	1.68	8	197	15
	[d]USEPA RSL Tap Water HQ 1.0		810	0.46	78	21,000	0.22	190	36	NA	0.87	8.3	200	1.5

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	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)
	MKTF-01	4Q2019 - 4Q2020							NS - SPH Present						
	MKTF-02	11/19/2019	*ND(5)*	4.4	*ND(15)*	**23**	ND(15)	7.8	ND(5)	ND(5)	ND(5)	ND(5)	*ND(5)*	3	ND(5)
		2/25/2020	*ND(5)*	42	*ND(15)*	9.1	16	150	4.3 J	11	ND(5)	ND(5)	*ND(5)*	10	ND(5)
		9/21/2020	*ND(1)*	33	ND(3)	**61**	12	90	3.7	8.1	0.46 J	ND(1)	ND(1)	33	ND(1)
		12/18/2020	*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)
	MKTF-03	4Q2019 - 4Q2020							NS - SPH Present						
	MKTF-04	10/30/2019	*ND(5)*	28	*ND(15)*	**1800**	ND(15)	61	3.8	4.5	ND(5)	ND(5)	*ND(5)*	12	ND(5)
		3/3/2020	*ND(5)*	17	*ND(15)*	**2100**	4.3 J	36	3.3 J	ND(5)	ND(5)	ND(5)	*ND(5)*	10	ND(5)
		3Q2020 - 4Q2020							NS - SPH Present						
	MKTF-05	4Q2019 - 4Q2020							NS - SPH Present						
	MKTF-06	4Q2019 - 4Q2020							NS - SPH Present						
	MKTF-07	4Q2019 - 4Q2020							NS - SPH Present						
	MKTF-08	4Q2019 - 4Q2020							NS - SPH Present						
	MKTF-09	11/18/19	*ND(10)*	15	*ND(30)*	**450**	5.3	34	ND(10)	3.6	ND(10)	ND(10)	*ND(10)*	14	ND(10)
		03/03/20	*ND(20)*	11 J	*ND(60)*	**530**	ND(60)	25	ND(20)	ND(20)	ND(20)	ND(20)	*ND(20)*	9.9J/ND(20)U*	ND(20)
		3Q2020 - 4Q2020							NS - SPH Present						
	MKTF-10	10/30/19	*ND(10)*	61	*ND(30)*	**17**	ND(30)	120	6.6	9.9	ND(10)	ND(10)	*ND(10)*	570	ND(10)
		03/03/20	*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)
		3Q2020							NS - SPH Present						
		12/18/20	*ND(125)*	70.4	*ND(125)*	*ND(25)*	ND(25)	116	ND(25)	ND(25)	ND(25)	ND(25)	*ND(25)*	284	ND(25)
	MKTF-11	10/30/19	*ND(20)*	25	*ND(60)*	**41**	ND(60)	58	ND(20)	6.8	ND(20)	ND(20)	*ND(20)*	**1500**	ND(20)
		03/03/20	*ND(20)*	12 J	*ND(60)*	**59**	ND(60)	21	ND(20)	ND(20)	ND(20)	ND(20)	*ND(20)*	860	ND(20)
		3Q2020 - 4Q2020							NS - SPH Present						
	MKTF-12	4Q2019 - 4Q2020							NS - SPH Present						
	MKTF-13	10/29/19	*ND(20)*	25	*ND(60)*	**330**	ND(60)	41	ND(20)	ND(20)	ND(20)	ND(20)	*ND(20)*	110	ND(20)
		1Q2020 - 4Q2020							NS - SPH Present						
	MKTF-14	4Q2019 - 4Q2020							NS - SPH Present						
	MKTF-15	4Q2019 - 4Q2020							NS - SPH Present						
	MKTF-16	10/30/19	*ND(100)*	21	*ND(300)*	**620**	ND(300)	74	ND(100)	ND(100)	*ND(100)*	ND(100)	*ND(100)*	95	*ND(100)*
		1Q2020 - 3Q2020							NS - SPH Present						
		12/23/20	*ND(500)*	ND(100)	*ND(500)*	**279**	ND(100)	ND(100)	ND(100)	ND(100)	*ND(100)*	ND(100)	*ND(100)*	129	*ND(100)*
	MKTF-17	10/29/19	*ND(5)*	42	*ND(15)*	**2500**	ND(15)	85	ND(5)	4.6	1.5	ND(5)	*ND(5)*	**23000**	ND(5)
Marketing Tank Farm Area		1Q2020 - 4Q2020							NS - SPH Present						
	MKTF-18	10/29/19	*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)
		02/06/20	*ND(2)*	ND(2)	*ND(6)*	**110**	ND(6)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	24	ND(2)
		3Q2020							NS - SPH Present						
		12/16/20	*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)
	MKTF-19	10/29/19	*ND(20)*	26	*ND(60)*	**7900**	ND(60)	67	ND(20)	ND(20)	ND(20)	ND(20)	*ND(20)*	13	ND(20)
		1Q2020 - 4Q2020							NS - SPH Present						
	MKTF-20	11/05/19	*ND(10)*	8.5	*ND(30)*	**170**	2.8	18	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	ND(10)	ND(10)
		02/05/20	*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)
		3Q2020 - 4Q2020							NS - SPH Present						
	MKTF-21	11/05/19	*ND(20)*	12	*ND(60)*	**29**	6.5	32	4.4	ND(20)	ND(20)	ND(20)	*ND(20)*	8.2	ND(20)
		02/05/20	*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)
		3Q2020 - 4Q2020							NS - SPH Present						
	MKTF-22	10/24/19	*ND(20)*	13	*ND(60)*	**2600**	5	27	ND(20)	ND(20)	ND(20)	ND(20)	*ND(20)*	ND(20)	ND(20)
		1Q2020 - 4Q2020							NS - SPH Present						
	MKTF-23	10/29/19	*ND(100)*	34	*ND(300)*	**330**	ND(300)	100	ND(100)	ND(100)	*ND(100)*	ND(100)	*ND(100)*	**8300**	*ND(100)*
		1Q2020 - 4Q2020							NS - SPH Present						
	MKTF-24	10/23/19	*ND(20)*	32	*ND(60)*	**110**	11	64	ND(20)	7.4	ND(20)	ND(20)	*ND(20)*	24	ND(20)
		02/25/20	*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)
		09/19/20	*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)
		12/18/20	*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)
	MKTF-25	10/23/19	*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)
		02/27/20	*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)
		3Q2020							NS - SPH Present						
		12/18/20	*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)
	MKTF-26	4Q2019 - 4Q2020							NS - SPH Present						
	MKTF-27	10/23/19	*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)
		02/25/20	*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)
		09/20/20	*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)
		12/18/20	*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)
	MKTF-28	10/22/19	*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)
		02/25/20	*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)
		09/20/20	*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)
		12/18/20	*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)
	[a]NMED GW Cleanup Levels		NA	NA	5	NA	NA	NA	NA	NA	100	NA	5	1,000	100
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		1.39	447	118	143	NA	NA	NA	NA	1,210	NA	113	1,090	93.2
	[d]USEPA RSL Tap Water HQ 1.0		0.14	450	11	14	1,000	660	NA	2,000	1,200	690	11	1,100	360

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

Well Group	Location ID	Date Sampled	trans-1,3- Dichloropropene (µg/L)	Trichloroethene (µg/L)	Trichlorofluoromethane (µg/L)	Vinyl Chloride (µg/L)	Xylenes, Total (µg/L)
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020			NS - SPH Present		
	MKTF-02	11/19/2019	ND(5)	*ND(5)*	ND(5)	**17**	ND(7.5)
		2/25/2020	ND(5)	*ND(5)*	ND(5)	**5 J**	48
		9/21/2020	ND(1)	*ND(1)*	ND(1)	**27**	6.3
		12/18/2020	ND(25)	*ND(5)*	ND(5)	**24.1**	ND(50)
	MKTF-03	4Q2019 - 4Q2020			NS - SPH Present		
	MKTF-04	10/30/2019	ND(5)	*ND(5)*	ND(5)	*ND(5)*	**740**
		3/3/2020	ND(5)	*ND(5)*	ND(5)	*ND(5)*	**560**
		3Q2020 - 4Q2020			NS - SPH Present		
	MKTF-05	4Q2019 - 4Q2020			NS - SPH Present		
	MKTF-06	4Q2019 - 4Q2020			NS - SPH Present		
	MKTF-07	4Q2019 - 4Q2020			NS - SPH Present		
	MKTF-08	4Q2019 - 4Q2020			NS - SPH Present		
	MKTF-09	11/18/19	ND(10)	*ND(10)*	ND(10)	*ND(10)*	69
		03/03/20	ND(20)	*ND(20)*	ND(20)	*ND(20)*	55
		3Q2020 - 4Q2020			NS - SPH Present		
	MKTF-10	10/30/19	ND(10)	*ND(10)*	ND(10)	**10**	**7200**
		03/03/20	ND(10)	*ND(10)*	ND(10)	**8.9 J**	**8200**
		3Q2020			NS - SPH Present		
		12/18/20	ND(125)	*ND(25)*	ND(25)	*ND(25)*	**8600**
	MKTF-11	10/30/19	ND(20)	*ND(20)*	ND(20)	**23**	**2200**
		03/03/20	ND(20)	*ND(20)*	ND(20)	**27**	**1100**
		3Q2020 - 4Q2020			NS - SPH Present		
	MKTF-12	4Q2019 - 4Q2020			NS - SPH Present		
	MKTF-13	10/29/19	ND(20)	*ND(20)*	ND(20)	*ND(20)*	**2600**
		1Q2020 - 4Q2020			NS - SPH Present		
	MKTF-14	4Q2019 - 4Q2020			NS - SPH Present		
	MKTF-15	4Q2019 - 4Q2020			NS - SPH Present		
	MKTF-16	10/30/19	ND(100)	*ND(100)*	ND(100)	*ND(100)*	**430**
		1Q2020 - 3Q2020			NS - SPH Present		
		12/23/20	ND(500)	*ND(100)*	ND(100) UJ	*ND(100)*	*ND(1000)*
	MKTF-17	10/29/19	ND(5)	*ND(5)*	ND(5)	*ND(5)*	**3100**
		1Q2020 - 4Q2020			NS - SPH Present		
	MKTF-18	10/29/19	ND(2)	*ND(2)*	ND(2)	*ND(2)*	ND(3)
		02/06/20	ND(2)	*ND(2)*	ND(2)	*ND(2)*	2.6 J
		3Q2020			NS - SPH Present		
		12/16/20	ND(10)	*ND(2)*	ND(2)	*ND(2)*	ND(20)
	MKTF-19	10/29/19	ND(20)	*ND(20)*	ND(20)	*ND(20)*	**610**
		1Q2020 - 4Q2020			NS - SPH Present		
	MKTF-20	11/05/19	ND(10)	*ND(10)*	ND(10)	*ND(10)*	96
		02/05/20	ND(10)	*ND(10)*	ND(10)	*ND(10)*	**530**
		3Q2020 - 4Q2020			NS - SPH Present		
	MKTF-21	11/05/19	ND(20)	*ND(20)*	ND(20)	*ND(20)*	**2800**
		02/05/20	ND(5)	*ND(5)*	ND(5)	*ND(5)*	ND(7.5)
		3Q2020 - 4Q2020			NS - SPH Present		
	MKTF-22	10/24/19	ND(20)	*ND(20)*	ND(20)	*ND(20)*	ND(30)
		1Q2020 - 4Q2020			NS - SPH Present		
	MKTF-23	10/29/19	ND(100)	*ND(100)*	ND(100)	**53**	**7100**
		1Q2020 - 4Q2020			NS - SPH Present		
	MKTF-24	10/23/19	ND(20)	*ND(20)*	ND(20)	**37**	ND(30)
		02/25/20	ND(20)	*ND(20)*	ND(20)	**28**	ND(30)
		09/19/20	ND(20)	*ND(20)*	ND(20)	**37**	ND(30)
		12/18/20	ND(125)	*ND(25)*	ND(25)	**33.2**	*ND(250)*
	MKTF-25	10/23/19	ND(5)	*11*	ND(5)	**3.3**	ND(7.5)
		02/27/20	ND(5)	*12*	ND(5)	**4.2 J**	ND(7.5)
		3Q2020			NS - SPH Present		
		12/18/20	ND(25)	*9.7*	ND(5)	*ND(5)*	ND(50)
	MKTF-26	4Q2019 - 4Q2020			NS - SPH Present		
	MKTF-27	10/23/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		02/25/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/20/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/18/20	ND(5)	*ND(1)*	ND(1)	*ND(1)*	ND(10)
	MKTF-28	10/22/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		02/25/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/20/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/18/20	ND(5)	*ND(1) UJ*	ND(1)	*ND(1)*	ND(10)
	[a]NMED GW Cleanup Levels		NA	5	NA	2	620
	[b]40 CFR 141.62		NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	2.59	1,140	0.324	193
	[d]USEPA RSL Tap Water HQ 1.0		NA	0.49	5,200	0.019	190

Released to Imaging: 11/22/2022 10:55:50 AM

TABLE 4-2. VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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)
	MKTF-29	10/22/19	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	0.56	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)
		09/20/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	0.29 J	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
	MKTF-30	10/23/19	*ND(1)*	0.28	*ND(2)*	**0.35**	**47**	4.4	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)
		09/20/20	*ND(1)*	ND(1)	*ND(2)*	0.2 J	**36**	2.2	ND(1)	ND(1)	*ND(2)*	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)
	MKTF-31	10/22/19	*ND(1)*	3.6	*ND(2)*	**2.3**	**36**	**53**	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)
		09/19/20	*ND(1)*	3.5	*ND(2)*	**2.2**	**48**	**63**	ND(1)	ND(1)	*ND(2)*	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)*
	MKTF-32	10/23/19	*ND(2)*	ND(2)	*ND(4)*	**1.1**	**12**	**18**	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)*
		09/21/20	*ND(2)*	ND(2)	*ND(4)*	**0.71 J**	**15**	**23**	ND(2)	ND(2)	*ND(4)*	*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)*
	MKTF-33	10/24/19	*ND(2)*	ND(2)	*ND(4)*	*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)*
		3Q2020 - 4Q2020					NS - SPH Present					
	MKTF-34	10/29/19	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	0.51	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)
		02/28/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
		12/04/20					NS - SPH Present					
	MKTF-35	10/29/19	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	0.68	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)*
		09/16/20	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	*ND(20)*	*ND(10)*
		4Q2020					NS - SPH Present					
	MKTF-36	4Q2019 - 1Q2020					NS - SPH Present					
		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*
		4Q2020					NS - SPH Present					
	MKTF-37	4Q2019 - 1Q2020					NS - SPH Present					
Marketing Tank Farm Area		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*
		4Q2020					NS - SPH Present					
	MKTF-38	4Q2019					NS - SPH Present					
		03/05/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
		4Q2020					NS - SPH Present					
	MKTF-39	11/05/19	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	0.49	ND(1)	ND(1)	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)*
		09/19/20	*ND(2)*	ND(2)	*ND(4)*	*ND(2)*	0.63 J	ND(2)	ND(2)	ND(2)	*ND(4)*	*ND(2)*
		12/16/20	*ND(1)*	ND(1)	*ND(1)*	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	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)
		02/28/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	0.64 J	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
		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)
	MKTF-41	10/23/19	*ND(1)*	ND(1)	*ND(2)*	**0.63**	**3.1**	3.8	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)
		09/21/20	*ND(1)*	ND(1)	*ND(2)*	**0.65 J**	**5.2**	**7.1**	ND(1)	ND(1)	*ND(2)*	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)
	MKTF-42	10/23/19	*ND(2)*	ND(2)	*ND(4)*	*ND(2)*	1.1	0.9	ND(2)	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)
		09/21/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	1.2	2.9	ND(1)	ND(1)	*ND(2)*	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)
	MKTF-43	10/24/19	*ND(1)*	ND(1)	*ND(2)*	*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)
		09/21/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
	MKTF-44	10/24/19	*ND(1)*	ND(1)	*ND(2)*	*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)
		09/21/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
	MKTF-45	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-46	4Q2019					NS - SPH Present					
		03/06/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	0.67 J	ND(1)	ND(1)	ND(1)	*ND(2)*	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
		12/16/20	*ND(1)*	ND(1)	*ND(1)*	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)
	[a]NMED GW Cleanup Levels		NA	200	10	5	25	7	NA	NA	NA	70
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		5.74	8,000	0.757	2.75	27.5	284	NA	NA	0.00835	11.5
	[d]USEPA RSL Tap Water HQ 1.0		0.57	8,000	0.076	0.28	2.8	280	NA	7	0.00075	1.2

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

Well Group	Location ID	Date Sampled	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)	1,4-Dichloro-benzene (µg/L)
Marketing Tank Farm Area	MKTF-29	10/22/19	ND(1)	--	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		02/25/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/20/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/15/20	ND(1)	*ND(5) UJ*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	MKTF-30	10/23/19	ND(1)	--	*ND(1)*	ND(1)	**2.1**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		02/27/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	**1.6**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/20/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	**1.6**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/15/20	ND(1)	*ND(5) UJ*	*ND(0.02) UJ*	ND(1)	**1.22**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	MKTF-31	10/22/19	0.22	--	*ND(1)*	ND(1)	**21**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		02/25/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	**28**	0.39 J	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/19/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	**24**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/18/20	ND(2)	*ND(10)*	*ND(0.0206) UJ*	ND(2)	**25.5**	*ND(2)*	ND(2)	ND(2)	ND(2)	*ND(2)*
	MKTF-32	10/23/19	ND(2)	--	*ND(2)*	ND(2)	**14**	*ND(2)*	ND(2)	ND(2)	ND(2)	*ND(2)*
		02/27/20	ND(2)	*ND(4)*	*ND(2)*	ND(2)	**13**	*ND(2)*	ND(2)	ND(2)	ND(2)	*ND(2)*
		09/21/20	ND(2)	*ND(4)*	*ND(2)*	ND(2)	**13**	*ND(2)*	ND(2)	ND(2)	ND(2)	*ND(2)*
		12/15/20	ND(5)	*ND(25) UJ*	*ND(0.0199) UJ*	ND(5)	**11.3**	*ND(5)*	ND(5)	ND(5)	ND(5)	*ND(5)*
	MKTF-33	10/24/19	ND(2)	--	*ND(2)*	ND(2)	*ND(2)*	*ND(2)*	ND(2)	ND(2)	ND(2)	*ND(2)*
		02/28/20	1.7 J	*ND(4)*	*ND(2)*	ND(2)	*ND(2)*	*ND(2)*	0.38 J	ND(2)	ND(2)	*ND(2)*
		3Q2020 - 4Q2020	NS - SPH Present									
	MKTF-34	10/29/19	ND(1)	--	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		02/05/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		02/28/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/16/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/04/20	NS - SPH Present									
	MKTF-35	10/29/19	ND(1)	--	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	**4.1**
		02/06/20	**240**	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	52	ND(10)	ND(10)	**3.7 J**
		09/16/20	**290**	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	7.4 J	ND(10)	ND(10)	**3.1 J**
		4Q2020	NS - SPH Present									
	MKTF-36	4Q2019 - 1Q2020	NS - SPH Present									
		09/18/20	**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	*ND(20) UJ*
		4Q2020	NS - SPH Present									
	MKTF-37	4Q2019 - 1Q2020	NS - SPH Present									
		09/17/20	**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	*ND(5) UJ*
		4Q2020	NS - SPH Present									
	MKTF-38	4Q2019	NS - SPH Present									
		03/05/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/19/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		4Q2020	NS - SPH Present									
	MKTF-39	11/05/19	1.7	--	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	0.26	ND(1)	ND(1)	*ND(1)*
		02/05/20	3.4	*ND(4)*	*ND(2)*	ND(2)	*ND(2)*	*ND(2)*	0.38 J	ND(2)	ND(2)	*ND(2)*
		09/19/20	12	*ND(4)*	*ND(2)*	ND(2)	*ND(2)*	*ND(2)*	ND(2)	ND(2)	ND(2)	*ND(2)*
		12/16/20	6.59	*ND(5)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	MKTF-40	10/22/19	ND(1)	--	*ND(1)*	ND(1)	**0.44**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		02/28/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	**0.37 J**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/19/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/17/20	ND(1)	*ND(5) UJ*	*ND(0.0196) UJ*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	MKTF-41	10/23/19	0.36	--	*ND(1)*	ND(1)	**3**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		02/27/20	1.3	*ND(2)*	*ND(1)*	ND(1)	**3.1**	*ND(1)*	0.51 J	ND(1)	ND(1)	*ND(1)*
		09/21/20	1.9	*ND(2)*	*ND(1)*	ND(1)	**4.1**	*ND(1)*	0.75 J	ND(1)	ND(1)	*ND(1)*
		12/15/20	1.22	*ND(5) UJ*	*ND(0.0198) UJ*	ND(1)	**2.99**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	MKTF-42	10/23/19	6.3	--	*ND(2)*	ND(2)	**2.3**	*ND(2)*	2.5	ND(2)	ND(2)	*ND(2)*
		02/27/20	30	*ND(2)*	*ND(1)*	ND(1)	**2.4**	*ND(1)*	12	ND(1)	ND(1)	*ND(1)*
		09/21/20	47	*ND(2)*	*ND(1)*	ND(1)	**4.3**	*ND(1)*	15	ND(1)	ND(1)	*ND(1)*
		12/16/20	12.1 J	*ND(5)*	*0.183 J*	ND(1)	*ND(1)*	*ND(1)*	4.15 J	ND(1)	ND(1)	*ND(1)*
	MKTF-43	10/24/19	ND(1)	--	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		02/27/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/21/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/15/20	ND(1)	*ND(5) UJ*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	MKTF-44	10/24/19	ND(1)	--	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		03/05/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/21/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/23/20	ND(1)	*ND(5) UJ*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	MKTF-45	4Q2019 - 4Q2020	NS - SPH Present									
	MKTF-46	4Q2019	NS - SPH Present									
		03/06/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/17/20	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	*ND(1) UJ*
		12/16/20	ND(1)	*ND(5)*	*ND(0.0197) UJ*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	[a]NMED GW Cleanup Levels		NA	NA	0.05	600	5	5	NA	NA	NA	75
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	0.00334	0.0747	302	1.71	4.38	NA	NA	NA	4.82
	[d]USEPA RSL Tap Water HQ 1.0		56	0.00033	0.0075	300	0.17	0.85	60	NA	370	0.48

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	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)
Marketing Tank Farm Area	MKTF-29	10/22/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		02/25/20	--	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)
		09/20/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		12/15/20	--	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
	MKTF-30	10/23/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		02/27/20	--	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)
		09/20/20	--	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)
		12/15/20	--	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
	MKTF-31	10/22/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	**0.6**	ND(1)	*ND(1)*	ND(1)	ND(3)
		02/25/20	--	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)
		09/19/20	--	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)
		12/18/20	--	ND(2) UJ	ND(50)	ND(2)	*ND(50)*	ND(2)	ND(50)	ND(50)	*ND(2)*	--	*ND(2)*	*ND(10)*	ND(2)
	MKTF-32	10/23/19	--	ND(4)	ND(20)	ND(2)	ND(20)	ND(2)	ND(20)	ND(20)	0.36	ND(2)	*ND(2)*	ND(2)	ND(6)
		02/27/20	--	ND(4)	ND(20)	ND(2)	ND(20)	ND(2)	ND(20)	ND(20)	*ND(2)*	ND(2)	*ND(2)*	ND(2)	ND(6)
		09/21/20	--	ND(4)	ND(20)	ND(2)	ND(20)	ND(2)	ND(20)	ND(20)	*ND(2)*	ND(2)	*ND(2)*	ND(2)	ND(6)
		12/15/20	--	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
	MKTF-33	10/24/19	--	ND(4)	ND(20)	ND(2)	ND(20)	ND(2)	ND(20)	ND(20)	*ND(2)*	ND(2)	*ND(2)*	ND(2)	ND(6)
		02/28/20	--	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)
		3Q2020 - 4Q2020							NS - SPH Present						
	MKTF-34	10/29/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		02/05/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		02/28/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	4.8J/ND(10)U*	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		09/16/20	--	ND(2)	1.2J/ND(10)U*	ND(1)	ND(10)	ND(1)	ND(10)	3.4J/ND(10)U*	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		12/04/20							NS - SPH Present						
	MKTF-35	10/29/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	**56**	ND(1)	*ND(1)*	ND(1)	ND(3)
		02/06/20	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	ND(100)	**6100**	ND(10)	*ND(10)*	*ND(10)*	*ND(30)*
		09/16/20	--	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)*
		4Q2020							NS - SPH Present						
	MKTF-36	4Q2019 - 1Q2020							NS - SPH Present						
		09/18/20	--	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*
		4Q2020							NS - SPH Present						
	MKTF-37	4Q2019 - 1Q2020							NS - SPH Present						
		09/17/20	--	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*
		4Q2020							NS - SPH Present						
	MKTF-38	4Q2019							NS - SPH Present						
		03/05/20	--	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)
		09/19/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		4Q2020							NS - SPH Present						
	MKTF-39	11/05/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	**10**	ND(1)	*ND(1)*	ND(1)	ND(3)
		02/05/20	--	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)
		09/19/20	--	ND(4)	ND(20)	ND(2)	ND(20)	ND(2)	ND(20)	ND(20)	**18**	ND(2)	*ND(2)*	ND(2)	ND(6)
		12/16/20	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	**14.4**	--	*ND(1)*	*ND(5)*	ND(1) UJ
	MKTF-40	10/22/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		02/28/20	--	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)
		09/19/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		12/17/20	--	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
	MKTF-41	10/23/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		02/27/20	--	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)
		09/21/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		12/15/20	--	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
	MKTF-42	10/23/19	--	ND(4)	ND(20)	ND(2)	ND(20)	ND(2)	ND(20)	15	**11**	ND(2)	*ND(2)*	ND(2)	ND(6)
		02/27/20	--	ND(2)	4.3 J	ND(1)	ND(10)	ND(1)	4 J	12 JB	**22**	ND(1)	*ND(1)*	ND(1)	ND(3)
		09/21/20	--	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)
		12/16/20	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	27.1	**14.2 J**	--	*ND(1)*	*ND(5)*	ND(1)
	MKTF-43	10/24/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		02/27/20	--	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)
		09/21/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		12/15/20	--	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
	MKTF-44	10/24/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		03/05/20	--	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)
		09/21/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		12/23/20	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	*ND(1)*	--	*ND(1)*	*ND(5) UJ*	ND(1) UJ
	MKTF-45	4Q2019 - 4Q2020							NS - SPH Present						
	MKTF-46	4Q2019							NS - SPH Present						
		03/06/20	--	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)
		09/17/20	--	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
		12/16/20	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	*ND(1)*	--	*ND(1)*	*ND(5)*	ND(1) UJ
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	5	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		4.59	NA	5,560	NA	NA	NA	1,240	14,100	4.55	NA	1.34	32.9	7.54
	[d]USEPA RSL Tap Water HQ 1.0		0.46	NA	5,600	240	38	250	6,300	14,000	0.46	62	0.13	3.3	7.5

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	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)	Ethylbenzene (µg/L)
Marketing Tank Farm Area	MKTF-29	10/22/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		02/25/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/20/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/15/20	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	ND(1)
	MKTF-30	10/23/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	4.3	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		02/27/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	4	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/20/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	2.8	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/15/20	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	ND(1)
	MKTF-31	10/22/19	ND(10)	*ND(1)*	ND(1)	ND(2)	**0.48**	ND(3)	1.7	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		02/25/20	ND(10)	*ND(1)*	ND(1)	ND(2)	**0.47 J**	ND(3)	2.2	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/19/20	ND(10)	*ND(1)*	ND(1)	ND(2)	**0.35 J**	ND(3)	2.4	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/18/20	ND(2)	*ND(2)*	ND(2)	ND(2)	*ND(2)*	ND(2)	ND(2)	ND(10)	*ND(2)*	*ND(10)*	ND(2)	*ND(2)*
	MKTF-32	10/23/19	ND(20)	*ND(2)*	ND(2)	ND(4)	*ND(2)*	ND(6)	1.5	ND(2)	*ND(2)*	ND(2)	ND(2)	*ND(2)*
		02/27/20	ND(20)	*ND(2)*	ND(2)	ND(4)	*ND(2)*	ND(6)	2.1	ND(2)	*ND(2)*	ND(2)	ND(2)	*ND(2)*
		09/21/20	ND(20)	*ND(2)*	ND(2)	ND(4)	*ND(2)*	ND(6)	2.5	ND(2)	*ND(2)*	ND(2)	ND(2)	*ND(2)*
		12/15/20	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	*ND(5)*
	MKTF-33	10/24/19	ND(20)	*ND(2)*	ND(2)	ND(4)	*ND(2)*	ND(6)	ND(2)	ND(2)	*ND(2)*	ND(2)	ND(2)	*ND(2)*
		02/28/20	ND(20)	*ND(2)*	ND(2)	ND(4)	*ND(2)*	ND(6)	ND(2)	ND(2)	*ND(2)*	ND(2)	ND(2)	*ND(2)*
		3Q2020 - 4Q2020							NS - SPH Present					
	MKTF-34	10/29/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		02/05/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		02/28/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/16/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/04/20							NS - SPH Present					
	MKTF-35	10/29/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	**2.2**
		02/06/20	ND(100)	*ND(10)*	ND(10)	ND(20)	*ND(10)*	*ND(30)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	**800**
		09/16/20	ND(100)	*ND(10)*	ND(10)	ND(20)	*ND(10)*	*ND(30)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	**640**
		4Q2020							NS - SPH Present					
	MKTF-36	4Q2019 - 1Q2020							NS - SPH Present					
		09/18/20	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	**2100 J**
		4Q2020							NS - SPH Present					
	MKTF-37	4Q2019 - 1Q2020							NS - SPH Present					
		09/17/20	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	**81 J**
		4Q2020							NS - SPH Present					
	MKTF-38	4Q2019							NS - SPH Present					
		03/05/20	ND(10)	*ND(1)*	ND(1)	ND(2)	**0.53 J**	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/19/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*0.8 J*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		4Q2020							NS - SPH Present					
	MKTF-39	11/05/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	**41**
		02/05/20	ND(20)	*ND(2)*	ND(2)	ND(4)	*ND(2)*	ND(6)	ND(2)	ND(2)	*ND(2)*	ND(2)	ND(2)	**38**
		09/19/20	ND(20)	*ND(2)*	ND(2)	ND(4)	*ND(2)*	ND(6)	ND(2)	ND(2)	*ND(2)*	ND(2)	ND(2)	**43**
		12/16/20	ND(1)	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1)*	ND(5)	ND(1)	**33.4**
	MKTF-40	10/22/19	ND(10)	*ND(1)*	ND(1)	ND(2)	0.19	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		02/28/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/19/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/17/20	ND(1)	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5) UJ	*ND(1)*	ND(5)	ND(1) UJ	ND(1)
	MKTF-41	10/23/19	ND(10)	*ND(1)*	ND(1)	ND(2)	0.2	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		02/27/20	ND(10)	*ND(1)*	ND(1)	ND(2)	0.2 J	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/21/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	0.36 J
		12/15/20	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	ND(1)
	MKTF-42	10/23/19	ND(20)	*ND(2)*	ND(2)	ND(4)	*ND(2)*	ND(6)	ND(2)	ND(2)	*ND(2)*	ND(2)	ND(2)	1.1
		02/27/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	**3.7**
		09/21/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	**3.7**
		12/16/20	ND(1)	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1)*	ND(5)	ND(1)	1.25 J
	MKTF-43	10/24/19	ND(10)	*ND(1)*	ND(1)	ND(2)	**0.6**	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		02/27/20	ND(10)	*ND(1)*	ND(1)	ND(2)	**0.6 J**	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/21/20	ND(10)	*ND(1)*	ND(1)	ND(2)	**0.36 J**	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/15/20	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	ND(1)
	MKTF-44	10/24/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		03/05/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/21/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/23/20	ND(1)	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1) UJ*	ND(5)	ND(1)	ND(1)
	MKTF-45	4Q2019 - 4Q2020							NS - SPH Present					
	MKTF-46	4Q2019							NS - SPH Present					
		03/06/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/17/20	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	ND(1) UJ
		12/16/20	ND(1)	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1)*	ND(5)	ND(1)	ND(1)
	[a]NMED GW Cleanup Levels		NA	5	NA	NA	100	NA	70	NA	NA	NA	NA	700
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		810	4.55	77.6	20,900	2.29	20.3	36.5	NA	1.68	8	197	15
	[d]USEPA RSL Tap Water HQ 1.0		810	0.46	78	21,000	0.22	190	36	NA	0.87	8.3	200	1.5

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

Well Group	Location ID	Date Sampled	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)
	MKTF-29	10/22/19	*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)
		02/25/20	*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)
		09/20/20	*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)
		12/15/20	*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)
	MKTF-30	10/23/19	*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)
		02/27/20	*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)
		09/20/20	*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)
		12/15/20	*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)
	MKTF-31	10/22/19	*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)
		02/25/20	*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)
		09/19/20	*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)
		12/18/20	*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)
	MKTF-32	10/23/19	*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)
		02/27/20	*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)
		09/21/20	*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)
		12/15/20	*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)
	MKTF-33	10/24/19	*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)
		02/28/20	*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)
		3Q2020 - 4Q2020							NS - SPH Present						
	MKTF-34	10/29/19	*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)
		02/05/20	*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)
		02/28/20	*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)
		09/16/20	*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)
		12/04/20							NS - SPH Present						
	MKTF-35	10/29/19	*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)
		02/06/20	*ND(10)*	17	*ND(30)*	**320**	ND(30)	37	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	**5300**	ND(10)
		09/16/20	*ND(10)*	20	*ND(30)*	**160**	ND(30)	54	ND(10)	ND(10)	ND(10)	ND(10)	*ND(10)*	130	ND(10)
		4Q2020							NS - SPH Present						
	MKTF-36	4Q2019 - 1Q2020							NS - SPH Present						
		09/18/20	*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
		4Q2020							NS - SPH Present						
	MKTF-37	4Q2019 - 1Q2020							NS - SPH Present						
Marketing Tank Farm Area		09/17/20	*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
		4Q2020							NS - SPH Present						
	MKTF-38	4Q2019							NS - SPH Present						
		03/05/20	*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)
		09/19/20	*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)
		4Q2020							NS - SPH Present						
	MKTF-39	11/05/19	*ND(1)*	19	ND(3)	ND(1)	5.5	26	0.98	13	ND(1)	0.45	ND(1)	ND(1)	ND(1)
		02/05/20	*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)
		09/19/20	*ND(2)*	19	*ND(6)*	ND(2)	7.3	27	2.1	15	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)
		12/16/20	*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)
	MKTF-40	10/22/19	*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)
		02/28/20	*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)
		09/19/20	*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)
		12/17/20	*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)
	MKTF-41	10/23/19	*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)
		02/27/20	*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)
		09/21/20	*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)
		12/15/20	*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)
	MKTF-42	10/23/19	*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)
		02/27/20	*ND(1)*	2.5	ND(3)	4.2	0.8 J	2.8	2.1	0.87 J	ND(1)	ND(1)	ND(1)	0.99J/ND(1)U*	ND(1)
		09/21/20	*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)
		12/16/20	*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)
	MKTF-43	10/24/19	*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)
		02/27/20	*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)
		09/21/20	*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)
		12/15/20	*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)
	MKTF-44	10/24/19	*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)
		03/05/20	*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)
		09/21/20	*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)
		12/23/20	*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)
	MKTF-45	4Q2019 - 4Q2020							NS - SPH Present						
	MKTF-46	4Q2019							NS - SPH Present						
		03/06/20	*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)
		09/17/20	*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
		12/16/20	*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)
	[a]NMED GW Cleanup Levels		NA	NA	5	NA	NA	NA	NA	NA	100	NA	5	1,000	100
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		1.39	447	118	143	NA	NA	NA	NA	1,210	NA	113	1,090	93.2
	[d]USEPA RSL Tap Water HQ 1.0		0.14	450	11	14	1,000	660	NA	2,000	1,200	690	11	1,100	360

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

Well Group	Location ID	Date Sampled	trans-1,3- Dichloropropene (µg/L)	Trichloroethene (µg/L)	Trichlorofluoromethane (µg/L)	Vinyl Chloride (µg/L)	Xylenes, Total (µg/L)
Marketing Tank Farm Area	MKTF-29	10/22/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		02/25/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/20/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/15/20	ND(5)	*ND(1)*	ND(1)	*ND(1) UJ*	ND(10)
	MKTF-30	10/23/19	ND(1)	**3**	ND(1)	*ND(1)*	ND(1.5)
		02/27/20	ND(1)	**2.6**	ND(1)	*ND(1)*	ND(1.5)
		09/20/20	ND(1)	**1.6**	ND(1)	*ND(1)*	ND(1.5)
		12/15/20	ND(5)	**1.11**	ND(1)	*ND(1) UJ*	ND(10)
	MKTF-31	10/22/19	ND(1)	**4.4**	ND(1)	**0.46**	ND(1.5)
		02/25/20	ND(1)	**5.7**	ND(1)	*ND(1)*	ND(1.5)
		09/19/20	ND(1)	**5.8**	ND(1)	*ND(1)*	ND(1.5)
		12/18/20	ND(10)	**5.37**	ND(2)	*ND(2)*	ND(20)
	MKTF-32	10/23/19	ND(2)	*ND(2)*	ND(2)	*ND(2)*	ND(3)
		02/27/20	ND(2)	*ND(2)*	ND(2)	*ND(2)*	ND(3)
		09/21/20	ND(2)	*ND(2)*	ND(2)	*ND(2)*	ND(3)
		12/15/20	ND(25)	*ND(5)*	ND(5)	*ND(5) UJ*	ND(50)
	MKTF-33	10/24/19	ND(2)	*ND(2)*	ND(2)	*ND(2)*	ND(3)
		02/28/20	ND(2)	*ND(2)*	ND(2)	*ND(2)*	15
		3Q2020 - 4Q2020			NS - SPH Present		
	MKTF-34	10/29/19	ND(1)	*1*	ND(1)	*ND(1)*	ND(1.5)
		02/05/20	ND(1)	0.4 J	ND(1)	*ND(1)*	ND(1.5)
		02/28/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/16/20	ND(1)	*0.89 J*	ND(1)	*ND(1)*	ND(1.5)
		12/04/20			NS - SPH Present		
	MKTF-35	10/29/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		02/06/20	ND(10)	*ND(10)*	ND(10)	*ND(10)*	**1800**
		09/16/20	ND(10)	*ND(10)*	ND(10)	*ND(10)*	**910**
		4Q2020			NS - SPH Present		
	MKTF-36	4Q2019 - 1Q2020			NS - SPH Present		
		09/18/20	ND(20) UJ	*ND(20) UJ*	ND(20) UJ	*ND(20) UJ*	**4400 J**
		4Q2020			NS - SPH Present		
	MKTF-37	4Q2019 - 1Q2020			NS - SPH Present		
		09/17/20	ND(5) UJ	*96 J*	ND(5) UJ	*ND(5) UJ*	**420 J**
		4Q2020			NS - SPH Present		
	MKTF-38	4Q2019			NS - SPH Present		
		03/05/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/19/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		4Q2020			NS - SPH Present		
	MKTF-39	11/05/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	1.4
		02/05/20	ND(2)	*ND(2)*	ND(2)	*ND(2)*	ND(3)
		09/19/20	ND(2)	*ND(2)*	ND(2)	**0.44 J**	ND(3)
		12/16/20	ND(5)	*ND(1)*	ND(1)	*ND(1)*	ND(10)
	MKTF-40	10/22/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		02/28/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/19/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/17/20	ND(5)	*ND(1)*	ND(1)	*ND(1)*	ND(10)
	MKTF-41	10/23/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		02/27/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	2.8
		09/21/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	4.3
		12/15/20	ND(5)	*ND(1)*	ND(1)	*ND(1) UJ*	ND(10)
	MKTF-42	10/23/19	ND(2)	*ND(2)*	ND(2)	*ND(2)*	21
		02/27/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	70
		09/21/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	80
		12/16/20	ND(5)	*ND(1)*	ND(1)	*ND(1)*	26.5 J
	MKTF-43	10/24/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		02/27/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/21/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/15/20	ND(5)	*ND(1)*	ND(1)	*ND(1) UJ*	ND(10)
	MKTF-44	10/24/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		03/05/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/21/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/23/20	ND(5) UJ	*ND(1)*	ND(1)	*ND(1)*	ND(10)
	MKTF-45	4Q2019 - 4Q2020			NS - SPH Present		
	MKTF-46	4Q2019			NS - SPH Present		
		03/06/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/17/20	ND(1) UJ	*ND(1) UJ*	ND(1) UJ	*ND(1) UJ*	ND(1.5) UJ
		12/16/20	ND(5)	*ND(1)*	ND(1)	*ND(1)*	ND(10)
	[a]NMED GW Cleanup Levels		NA	5	NA	2	620
	[b]40 CFR 141.62		NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	2.59	1,140	0.324	193
	[d]USEPA RSL Tap Water HQ 1.0		NA	0.49	5,200	0.019	190

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

TABLE 4-2. VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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)
Marketing Tank Farm Area	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)
		3Q2020 - 4Q2020					NS - SPH Present					
	MKTF-48	2Q2020 - 4Q2020					NS - SPH Present					
	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)*
		09/20/20	*ND(50)*	ND(50)	*ND(100)*	*ND(50)*	*ND(50)*	*ND(50)*	ND(50)	*ND(50)*	*ND(100)*	*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)*
	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)*
		3Q2020					NS - SPH Present					
		12/16/20	*ND(20)*	ND(20)	*ND(20)*	*ND(100)*	*ND(20)*	*ND(20)*	ND(20)	*ND(20)*	*ND(100)*	*ND(20)*
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)
		03/04/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
	LDU - East	11/19/19	*ND(5)*	ND(5)	*ND(10)*	*ND(5)*	*ND(5)*	ND(5)	ND(5)	ND(5)	--	*ND(5)*
		03/10/20	--	--	--	--	--	--	--	--	--	--
		3Q2020					NS - H2S Present					
		12/17/20	*ND(1)*	ND(1)	*ND(1)*	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5) UJ*	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)
		03/10/20	--	--	--	--	--	--	--	--	--	--
		3Q2020					NS - H2S Present					
		12/17/20	*ND(1)*	ND(1) UJ	*ND(1)*	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)
	NAPIS-1	4Q2019 - 3Q2020					NS - SPH Present					
		12/07/20	*ND(1)*	ND(1) UJ	*ND(1)*	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	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)
		03/04/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
	NAPIS-3	10/21/19	*ND(1)*	ND(1)	*ND(2)*	*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)
		09/22/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
	OAPIS-1	10/21/19	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	1.1	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)
		09/22/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	1.3	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
	STP1-NW	10/22/19	*ND(1)*	ND(1)	*ND(2)*	*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)
		9/15/2020					NS - H2S Present					
		12/23/20	*ND(1)*	ND(1)	*ND(1)*	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)
	STP1-SW	4Q2019 - 4Q2020					NS - H2S Present					
	Oil Sump LDU	4Q2019 - 4Q2020					NS - H2S Present					
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020					NS - SPH Present					
	GWM-2	4Q2019					NS - Dry					
		1Q2020					NS - SPH Present					
		3Q2020 - 4Q2020					NS - Dry					
	GWM-3	4Q2019					NS - Dry					
		1Q2020					NS - SPH Present					
		3Q2020 - 4Q2020					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)
		03/03/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
		12/23/20	*ND(1)*	ND(1)	*ND(1)*	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	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)
		03/03/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
		12/11/20	*ND(1)*	ND(1)	*ND(1)*	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)
Land Treatment Unit	MW-1	09/20/17	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--
		09/13/18	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--
		12/06/18	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--
		08/12/19	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
	MW-2	09/20/17	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--
		09/13/18	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--
		12/06/18	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--
		08/13/19	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)
		09/18/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)
	[a]NMED GW Cleanup Levels		NA	200	10	5	25	7	NA	NA	NA	70
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		5.74	8,000	0.757	2.75	27.5	284	NA	NA	0.00835	11.5
	[d]USEPA RSL Tap Water HQ 1.0		0.57	8,000	0.076	0.28	2.8	280	NA	7	0.00075	1.2

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	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)	1,4-Dichloro-benzene (µg/L)
Marketing Tank Farm Area	MKTF-47	03/06/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		3Q2020 - 4Q2020					NS - SPH Present					
	MKTF-48	2Q2020 - 4Q2020					NS - SPH Present					
	MKTF-49	03/05/20	**690**	*ND(10)*	*ND(5)*	ND(5)	*ND(5)*	*ND(5)*	**210**	ND(5)	ND(5)	*ND(5)*
		09/20/20	**750**	*ND(100)*	*ND(50)*	ND(50)	*ND(50)*	*ND(50)*	**240**	ND(50)	ND(50)	*ND(50)*
		12/23/20	**637**	*ND(500)*	*ND(100)*	ND(100)	*ND(100)*	*ND(100)*	**216**	ND(100)	ND(100)	*ND(100)*
	MKTF-50	03/05/20	30 J	*ND(10)*	*ND(5)*	ND(5)	*ND(5)*	*ND(5)*	11 J	ND(5)	ND(5)	*ND(5)*
		3Q2020					NS - SPH Present					
		12/16/20	**107**	*ND(100)*	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	38.3	ND(20)	ND(20)	*ND(20)*
Wastewater Treatment Area	KA-3	10/21/19	ND(1)	--	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		03/04/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/22/20	--	--	--	--	--	--	--	--	--	--
		12/17/20	ND(1)	*ND(5)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	LDU - East	11/19/19	45	--	*ND(5)*	ND(5)	*ND(5)*	*ND(5)*	19	ND(5)	ND(5)	*ND(5)*
		03/10/20	--	--	--	--	--	--	--	--	--	--
		3Q2020					NS - H2S Present					
		12/17/20	32.2	*ND(5) UJ*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	24.1	ND(1)	ND(1)	*ND(1)*
	LDU - West	11/19/19	ND(1)	--	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		03/10/20	--	--	--	--	--	--	--	--	--	--
		3Q2020					NS - H2S Present					
		12/17/20	9.55	*ND(5)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	5.52	ND(1)	ND(1)	*ND(1)*
	NAPIS-1	4Q2019 - 3Q2020					NS - SPH Present					
		12/07/20	9.55	*ND(5)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	5.52	ND(1)	ND(1)	*ND(1)*
	NAPIS-2	10/21/19	ND(1)	--	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		03/04/20	0.59 J	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/22/20	--	--	--	--	--	--	--	--	--	--
		12/17/20	ND(1)	*ND(5) UJ*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	NAPIS-3	10/21/19	ND(1)	--	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		03/04/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/22/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/17/20	ND(1)	*ND(5)*	*ND(0.0203) UJ*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	OAPIS-1	10/21/19	9.4	--	*ND(1)*	ND(1)	**0.53**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		03/04/20	1.9	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/22/20	2.2	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/17/20	ND(1)	*ND(5)*	*ND(0.0198) UJ*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	STP1-NW	10/22/19	ND(1)	--	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		03/04/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		9/15/2020					NS - H2S Present					
		12/23/20	ND(1)	*ND(5)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	STP1-SW	4Q2019 - 4Q2020					NS - H2S Present					
	Oil Sump LDU	4Q2019 - 4Q2020					NS - H2S Present					
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020					NS - SPH Present					
	GWM-2	4Q2019					NS - Dry					
		1Q2020					NS - SPH Present					
		3Q2020 - 4Q2020					NS - Dry					
	GWM-3	4Q2019					NS - Dry					
		1Q2020					NS - SPH Present					
		3Q2020 - 4Q2020					NS - Dry					
	OW-59	10/15/19	ND(1)	--	*ND(1)*	ND(1)	**0.39**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		03/03/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/19/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/23/20	ND(1)	*ND(5) UJ*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	OW-60	10/15/19	ND(1)	--	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		03/03/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/21/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/11/20	ND(1)	*ND(5)*	*ND(0.0205) UJ*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
Land Treatment Unit	MW-1	09/20/17	ND(1)	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		09/13/18	ND(1)	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		12/06/18	ND(1)	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		08/12/19	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/22/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	MW-2	09/20/17	ND(1)	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		09/13/18	ND(1)	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		12/06/18	ND(1)	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		08/13/19	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/18/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	[a]NMED GW Cleanup Levels		NA	NA	0.05	600	5	5	NA	NA	NA	75
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	0.00334	0.0747	302	1.71	4.38	NA	NA	NA	4.82
	[d]USEPA RSL Tap Water HQ 1.0		56	0.00033	0.0075	300	0.17	0.85	60	NA	370	0.48

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	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)
Marketing Tank Farm Area	MKTF-47	03/06/20	--	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)
		3Q2020 - 4Q2020							NS - SPH Present						
	MKTF-48	2Q2020 - 4Q2020							NS - SPH Present						
	MKTF-49	03/05/20	--	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)*
		09/20/20	--	ND(100)	ND(500)	ND(50)	*ND(500)*	ND(50)	ND(500)	ND(500)	**23000**	ND(50)	*ND(50)*	*ND(50)*	*ND(150)*
		12/23/20	--	ND(100)	ND(2500)	ND(100)	*ND(2500)*	ND(100)	*ND(2500)*	ND(2500)	**21800**	--	*ND(100)*	*ND(500)*	*ND(100)*
	MKTF-50	03/05/20	--	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)*
		3Q2020							NS - SPH Present						
		12/16/20	--	ND(20)	ND(500)	ND(20)	*ND(500)*	ND(20)	ND(500)	ND(500)	**5970**	--	*ND(20)*	*ND(100) UJ*	*ND(20)*
Wastewater Treatment Area	KA-3	10/21/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	**57**	ND(1)	*ND(1)*	ND(1)	ND(3)
		03/04/20	--	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)
		09/22/20	--	--	--	--	--	--	--	--	**310**	--	--	--	--
		12/17/20	--	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
	LDU - East	11/19/19	--	ND(10)	ND(50)	ND(5)	*ND(50)*	ND(5)	ND(50)	ND(50)	**1300**	ND(5)	*ND(5)*	*ND(5)*	*ND(15)*
		03/10/20	--	--	--	--	--	--	--	--	**620**	--	--	--	--
		3Q2020							NS - H2S Present						
		12/17/20	--	ND(1) UJ	35.1	ND(1)	ND(25)	ND(1)	ND(25)	295	**285**	--	*ND(1)*	*ND(5)*	ND(1)
	LDU - West	11/19/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	**2.3**	ND(1)	*ND(1)*	ND(1)	ND(3)
		03/10/20	--	--	--	--	--	--	--	--	**150**	--	--	--	--
		3Q2020							NS - H2S Present						
		12/17/20	--	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
	NAPIS-1	4Q2019 - 3Q2020							NS - SPH Present						
		12/07/20	--	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
	NAPIS-2	10/21/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	**210**	ND(1)	*ND(1)*	ND(1)	ND(3)
		03/04/20	--	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)
		09/22/20	--	--	--	--	--	--	--	--	**290**	--	--	--	--
		12/17/20	--	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	**204**	--	*ND(1)*	*ND(5)*	ND(1)
	NAPIS-3	10/21/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		03/04/20	--	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)
		09/22/20	--	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)
		12/17/20	--	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
	OAPIS-1	10/21/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	**170**	ND(1)	*ND(1)*	ND(1)	ND(3)
		03/04/20	--	ND(2)	4.7 J	ND(1)	ND(10)	ND(1)	ND(10)	26 JB	**46**	ND(1)	*ND(1)*	ND(1)	ND(3)
		09/22/20	--	ND(2)	6.9 J	ND(1)	ND(10)	ND(1)	ND(10)	54	**84**	ND(1)	*ND(1)*	ND(1)	ND(3)
		12/17/20	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	27.9	**53.8**	--	*ND(1)*	*ND(5)*	ND(1) UJ
	STP1-NW	10/22/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		03/04/20	--	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)
		9/15/2020							NS - H2S Present						
		12/23/20	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	*ND(1)*	--	*ND(1)*	*ND(5)*	ND(1)
	STP1-SW	4Q2019 - 4Q2020							NS - H2S Present						
	Oil Sump LDU	4Q2019 - 4Q2020							NS - H2S Present						
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020							NS - SPH Present						
	GWM-2	4Q2019							NS - Dry						
		1Q2020							NS - SPH Present						
		3Q2020 - 4Q2020							NS - Dry						
	GWM-3	4Q2019							NS - Dry						
		1Q2020							NS - SPH Present						
		3Q2020 - 4Q2020							NS - Dry						
	OW-59	10/15/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		03/03/20	--	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)
		09/19/20	--	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)
		12/23/20	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	*ND(1)*	--	*ND(1)*	*ND(5) UJ*	ND(1) UJ
	OW-60	10/15/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	3.8	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		03/03/20	--	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)
		09/21/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		12/11/20	--	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	*ND(1)*	--	*ND(1)*	*ND(5) UJ*	ND(1)
Land Treatment Unit	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)
		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)
		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)
		08/12/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		09/22/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
	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)
		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)
		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)
		08/13/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		09/18/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	5	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		4.59	NA	5,560	NA	NA	NA	1,240	14,100	4.55	NA	1.34	32.9	7.54
	[d]USEPA RSL Tap Water HQ 1.0		0.46	NA	5,600	240	38	250	6,300	14,000	0.46	62	0.13	3.3	7.5

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

Well Group	Location ID	Date Sampled	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)	Ethylbenzene (µg/L)
Marketing Tank Farm Area	MKTF-47	03/06/20	ND(10)	*ND(1)*	ND(1)	ND(2)	**0.23 J**	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		3Q2020 - 4Q2020							NS - SPH Present					
	MKTF-48	2Q2020 - 4Q2020							NS - SPH Present					
	MKTF-49	03/05/20	ND(50)	*ND(5)*	ND(5)	ND(10)	*ND(5)*	ND(15)	ND(5)	ND(5)	*ND(5)*	ND(5)	ND(5)	1300
		09/20/20	ND(500)	*ND(50)*	ND(50)	ND(100)	*ND(50)*	*ND(150)*	*ND(50)*	ND(50)	*ND(50)*	*ND(50)*	ND(50)	1500
		12/23/20	ND(100)	*ND(100)*	*ND(100)*	ND(100)	*ND(100)*	*ND(100)*	*ND(100)*	ND(500)	*ND(100)*	*ND(500) UJ*	ND(100)	1430
	MKTF-50	03/05/20	ND(50)	*ND(5)*	ND(5)	ND(10)	*ND(5)*	ND(15)	ND(5)	ND(5)	*ND(5)*	ND(5)	ND(5)	1300
		3Q2020							NS - SPH Present					
		12/16/20	ND(20)	*ND(20)*	ND(20)	ND(20)	*ND(20)*	ND(20)	ND(20)	ND(100)	*ND(20) UJ*	*ND(100)*	ND(20) UJ	1130
Wastewater Treatment Area	KA-3	10/21/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	**6.2**
		03/04/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	**2.2**
		09/22/20	--	--	--	--	--	--	--	--	--	--	--	**27**
		12/17/20	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)	**3.03**
	LDU - East	11/19/19	ND(50)	*ND(5)*	ND(5)	ND(10)	*ND(5)*	ND(15)	ND(5)	ND(5)	*ND(5)*	ND(5)	ND(5)	**82**
		03/10/20	--	--	--	--	--	--	--	--	--	--	--	**50**
		3Q2020							NS - H2S Present					
		12/17/20	43.1	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1)*	ND(5) UJ	ND(1)	**56**
	LDU - West	11/19/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		03/10/20	--	--	--	--	--	--	--	--	--	--	--	**14**
		3Q2020							NS - H2S Present					
		12/17/20	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)	**9.37**
	NAPIS-1	4Q2019 - 3Q2020							NS - SPH Present					
		12/07/20	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)	**9.37**
	NAPIS-2	10/21/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	**24**
		03/04/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	**40**
		09/22/20	--	--	--	--	--	--	--	--	--	--	--	**140**
		12/17/20	8.09	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1)*	ND(5) UJ	ND(1)	**50.4**
	NAPIS-3	10/21/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		03/04/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	**3**
		09/22/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	**4.6**
		12/17/20	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)	**4.13**
	OAPIS-1	10/21/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	**21**
		03/04/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	**5.2**
		09/22/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	**11**
		12/17/20	ND(1)	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1)*	ND(5)	ND(1)	**5.49**
	STP1-NW	10/22/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		03/04/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		9/15/2020							NS - H2S Present					
		12/23/20	ND(1)	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1)*	ND(5) UJ	ND(1)	ND(1)
	STP1-SW	4Q2019 - 4Q2020							NS - H2S Present					
	Oil Sump LDU	4Q2019 - 4Q2020							NS - H2S Present					
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020							NS - SPH Present					
	GWM-2	4Q2019							NS - Dry					
		1Q2020							NS - SPH Present					
		3Q2020 - 4Q2020							NS - Dry					
	GWM-3	4Q2019							NS - Dry					
		1Q2020							NS - SPH Present					
		3Q2020 - 4Q2020							NS - Dry					
	OW-59	10/15/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		03/03/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/19/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/23/20	ND(1)	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1) UJ*	ND(5)	ND(1)	ND(1)
	OW-60	10/15/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		03/03/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/21/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/11/20	ND(1)	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1)*	ND(5)	ND(1) UJ	ND(1)
Land Treatment Unit	MW-1	09/20/17	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/13/18	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/06/18	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		08/12/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/22/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
	MW-2	09/20/17	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/13/18	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/06/18	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		08/13/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/18/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
	[a]NMED GW Cleanup Levels		NA	5	NA	NA	100	NA	70	NA	NA	NA	NA	700
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		810	4.55	77.6	20,900	2.29	20.3	36.5	NA	1.68	8	197	15
	[d]USEPA RSL Tap Water HQ 1.0		810	0.46	78	21,000	0.22	190	36	NA	0.87	8.3	200	1.5

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	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)
Marketing Tank Farm Area	MKTF-47	03/06/20	*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)
		3Q2020 - 4Q2020							NS - SPH Present						
	MKTF-48	2Q2020 - 4Q2020							NS - SPH Present						
	MKTF-49	03/05/20	*ND(5)*	120	*ND(15)*	11	9.7 J	120	16	16	ND(5)	ND(5)	*ND(5)*	**8400**	ND(5)
		09/20/20	*ND(50)*	130	*ND(150)*	*ND(50)*	ND(150)	130	14 J	ND(50)	ND(50)	ND(50)	*ND(50)*	**9900**	ND(50)
		12/23/20	*ND(500)*	116	*ND(500)*	*ND(100)*	ND(100)	123	ND(100)	ND(100)	*ND(100)*	ND(100)	*ND(100)*	**10000**	*ND(100)*
	MKTF-50	03/05/20	*ND(5)*	82	*ND(15)*	4.5 J	13 J	130	1.7 J	13	ND(5)	ND(5)	*ND(5)*	42	ND(5)
		3Q2020							NS - SPH Present						
		12/16/20	*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)
Wastewater Treatment Area	KA-3	10/21/19	*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)
		03/04/20	*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)
		09/22/20	--	--	--	**59**	--	--	--	--	--	--	--	ND(1)	--
		12/17/20	*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)
	LDU - East	11/19/19	*ND(5)*	11	*ND(15)*	ND(5)	3.1	14	3.9	3.6	ND(5)	ND(5)	*ND(5)*	360	ND(5)
		03/10/20	--	--	--	ND(5)	--	--	--	--	--	--	--	38	--
		3Q2020							NS - H2S Present						
		12/17/20	*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)
	LDU - West	11/19/19	*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)
		03/10/20	--	--	--	2.1 J	--	--	--	--	--	--	--	41	--
		3Q2020							NS - H2S Present						
		12/17/20	*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)
	NAPIS-1	4Q2019 - 3Q2020							NS - SPH Present						
		12/07/20	*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)
	NAPIS-2	10/21/19	*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)
		03/04/20	*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)U*	ND(1)
		09/22/20	--	--	--	**57**	--	--	--	--	--	--	--	0.52 J	--
		12/17/20	*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)
	NAPIS-3	10/21/19	*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)
		03/04/20	*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)
		09/22/20	*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)
		12/17/20	*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)
	OAPIS-1	10/21/19	*ND(1)*	2	ND(3)	**250**	ND(3)	2.5	0.67	0.42	ND(1)	ND(1)	ND(1)	1.5	ND(1)
		03/04/20	*ND(1)*	0.55 J	ND(3)	**270**	ND(3)	0.64 J	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	0.39J/ND(1)U*	ND(1)
		09/22/20	*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)
		12/17/20	*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)
	STP1-NW	10/22/19	*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)
		03/04/20	*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)
		9/15/2020							NS - H2S Present						
		12/23/20	*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)
	STP1-SW	4Q2019 - 4Q2020							NS - H2S Present						
	Oil Sump LDU	4Q2019 - 4Q2020							NS - H2S Present						
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020							NS - SPH Present						
	GWM-2	4Q2019							NS - Dry						
		1Q2020							NS - SPH Present						
		3Q2020 - 4Q2020							NS - Dry						
	GWM-3	4Q2019							NS - Dry						
		1Q2020							NS - SPH Present						
		3Q2020 - 4Q2020							NS - Dry						
	OW-59	10/15/19	*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)
		03/03/20	*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)
		09/19/20	*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)
		12/23/20	*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)
	OW-60	10/15/19	*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)
		03/03/20	*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)
		09/21/20	*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)
		12/11/20	*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)
Land Treatment Unit	MW-1	09/20/17	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/13/18	--	ND(1)	0.41	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/06/18	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		08/12/19	*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)
		09/22/20	*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)
	MW-2	09/20/17	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/13/18	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/06/18	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		08/13/19	*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)
		09/18/20	*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)
	[a]NMED GW Cleanup Levels		NA	NA	5	NA	NA	NA	NA	NA	100	NA	5	1,000	100
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		1.39	447	118	143	NA	NA	NA	NA	1,210	NA	113	1,090	93.2
	[d]USEPA RSL Tap Water HQ 1.0		0.14	450	11	14	1,000	660	NA	2,000	1,200	690	11	1,100	360

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	trans-1,3- Dichloropropene (µg/L)	Trichloroethene (µg/L)	Trichlorofluoromethane (µg/L)	Vinyl Chloride (µg/L)	Xylenes, Total (µg/L)
Marketing Tank Farm Area	MKTF-47	03/06/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		3Q2020 - 4Q2020			NS - SPH Present		
	MKTF-48	2Q2020 - 4Q2020			NS - SPH Present		
	MKTF-49	03/05/20	ND(5)	*ND(5)*	ND(5)	*ND(5)*	**6800**
		09/20/20	ND(50)	*ND(50)*	ND(50)	*ND(50)*	**7500**
		12/23/20	ND(500)	*ND(100)*	ND(100) UJ	*ND(100)*	**7450**
	MKTF-50	03/05/20	ND(5)	*ND(5)*	ND(5)	*ND(5)*	81 J
		3Q2020			NS - SPH Present		
		12/16/20	ND(100)	*ND(20)*	ND(20) UJ	*ND(20)*	**286**
Wastewater Treatment Area	KA-3	10/21/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		03/04/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/22/20	--	--	--	--	0.64 J
		12/17/20	ND(5) UJ	*ND(1)*	ND(1)	*ND(1)*	ND(10)
	LDU - East	11/19/19	ND(5)	*ND(5)*	ND(5)	*ND(5)*	**210**
		03/10/20	--	--	--	--	57
		3Q2020			NS - H2S Present		
		12/17/20	ND(5)	*ND(1)*	ND(1)	*ND(1)*	93.2
	LDU - West	11/19/19	ND(1)	**0.22**	ND(1)	*ND(1)*	ND(1.5)
		03/10/20	--	--	--	--	44
		3Q2020			NS - H2S Present		
		12/17/20	ND(5) UJ	*ND(1)*	ND(1)	*ND(1)*	16.1
	NAPIS-1	4Q2019 - 3Q2020			NS - SPH Present		
		12/07/20	ND(5) UJ	*ND(1)*	ND(1)	*ND(1)*	16.1
	NAPIS-2	10/21/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		03/04/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	2.1
		09/22/20	--	--	--	--	1.5
		12/17/20	ND(5)	*ND(1)*	ND(1)	*ND(1)*	ND(10)
	NAPIS-3	10/21/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		03/04/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/22/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/17/20	ND(5) UJ	*ND(1)*	ND(1)	*ND(1)*	ND(10)
	OAPIS-1	10/21/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	7.4
		03/04/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	1.7
		09/22/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	2.9
		12/17/20	ND(5)	*ND(1)*	ND(1)	*ND(1)*	ND(10)
	STP1-NW	10/22/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		03/04/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		9/15/2020			NS - H2S Present		
		12/23/20	ND(5)	*ND(1)*	ND(1) UJ	*ND(1)*	ND(10)
	STP1-SW	4Q2019 - 4Q2020			NS - H2S Present		
	Oil Sump LDU	4Q2019 - 4Q2020			NS - H2S Present		
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020			NS - SPH Present		
	GWM-2	4Q2019			NS - Dry		
		1Q2020			NS - SPH Present		
		3Q2020 - 4Q2020			NS - Dry		
	GWM-3	4Q2019			NS - Dry		
		1Q2020			NS - SPH Present		
		3Q2020 - 4Q2020			NS - Dry		
	OW-59	10/15/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		03/03/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/19/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/23/20	ND(5) UJ	*ND(1)*	ND(1)	*ND(1)*	ND(10)
	OW-60	10/15/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		03/03/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/21/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/11/20	ND(5)	*ND(1)*	ND(1)	*ND(1)*	ND(10)
Land Treatment Unit	MW-1	09/20/17	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/13/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/06/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		08/12/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/22/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
	MW-2	09/20/17	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/13/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/06/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		08/13/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/18/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
	[a]NMED GW Cleanup Levels		NA	5	NA	2	620
	[b]40 CFR 141.62		NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	2.59	1,140	0.324	193
	[d]USEPA RSL Tap Water HQ 1.0		NA	0.49	5,200	0.019	190

Released to Imaging: 11/22/2022 10:55:50 AM

TABLE 4-2. VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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)
Land Treatment Unit	MW-4	09/21/17	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--
		09/13/18	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--
		12/06/18	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--
		08/13/19	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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
	MW-5	09/11/17	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--
		09/17/18	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--
		12/06/18	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--
		08/14/19	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
	SMW-2	09/11/17	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--
		09/18/18	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--
		08/22/19	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
	SMW-4	09/11/17	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--
		09/12/18	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--
		12/06/18	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--
		08/13/19	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
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)*	--
		04/30/19	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	*ND(20)*	*ND(10)*
		11/21/19	*ND(10)*	ND(10)	*ND(20)*	*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)*
		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
		12/21/20	*ND(1)*	ND(1)	*ND(1)*	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	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)*	--
		04/30/19	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	*ND(20)*	*ND(10)*
		11/20/19	*ND(10)*	ND(10)	*ND(20)*	*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)*
		12/21/20	*ND(1)*	ND(1)	*ND(1)*	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	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)*	--
		04/30/19	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	*ND(20)*	*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)
		12/21/20	*ND(1)*	ND(1)	*ND(1)*	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	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)*	--
		04/30/19	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	*ND(20)*	*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)
		12/21/20	*ND(1)*	ND(1)	*ND(1)*	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	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)*	--
		04/29/19	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	*ND(20)*	*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)
		12/21/20	*ND(1)*	ND(1)	*ND(1)*	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	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)*	--
		04/29/19	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	*ND(20)*	*ND(10)*
		11/20/19	*ND(1)*	ND(1)	*ND(2)*	*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)
		12/21/20	*ND(1)*	ND(1)	*ND(1)*	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	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)*	--
		04/29/19	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	*ND(20)*	*ND(10)*
		11/20/19	*ND(1)*	ND(1)	*ND(2)*	*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)
		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
	EP-9	09/07/18	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--
		04/29/19	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	*ND(20)*	*ND(10)*
		11/20/19	*ND(1)*	ND(1)	*ND(2)*	*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)
		12/21/20	*ND(1)*	ND(1)	*ND(1)*	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	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)*	--
		04/29/19	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	*ND(20)*	*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
	EP-12A	09/07/18	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--
		11/21/19	*ND(5)*	ND(5)	*ND(10)*	*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
	EP-12B	09/07/18	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--
		04/29/19	*ND(10)*	ND(10)	*ND(20)*	*ND(10)*	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*	*ND(20)*	*ND(10)*
		11/21/19	*ND(5)*	ND(5)	*ND(10)*	*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
		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
	[a]NMED GW Cleanup Levels		NA	200	10	5	25	7	NA	NA	NA	70
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		5.74	8,000	0.757	2.75	27.5	284	NA	NA	0.00835	11.5
	[d]USEPA RSL Tap Water HQ 1.0		0.57	8,000	0.076	0.28	2.8	280	NA	7	0.00075	1.2

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	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)	1,4-Dichloro-benzene (µg/L)
Land Treatment Unit	MW-4	09/21/17	ND(1)	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		09/13/18	ND(1)	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		12/06/18	ND(1)	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		08/13/19	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/18/20	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	*ND(1) UJ*
	MW-5	09/11/17	ND(1)	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		09/17/18	ND(1)	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		12/06/18	ND(1)	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		08/14/19	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/21/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	SMW-2	09/11/17	ND(1)	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		09/18/18	ND(1)	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		08/22/19	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/19/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	SMW-4	09/11/17	ND(1)	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		09/12/18	ND(1)	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		12/06/18	ND(1)	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		08/13/19	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/20/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
Evaporation Ponds	EP-2	09/06/18	0.53	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		04/30/19	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*
		11/21/19	ND(10)	--	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*
		09/16/20	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(5)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*
		09/17/20	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	*ND(1) UJ*
		12/21/20	ND(1)	*ND(5)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	EP-3	09/06/18	ND(1)	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		04/30/19	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*
		11/20/19	ND(10)	--	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*
		09/16/20	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(0.5)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*
		12/21/20	ND(1)	*ND(5)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	EP-4	09/06/18	ND(1)	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		04/30/19	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*
		09/17/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/21/20	ND(1)	*ND(5)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	EP-5	09/06/18	ND(1)	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		04/30/19	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*
		09/17/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/21/20	ND(1)	*ND(5)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	EP-6	09/07/18	ND(1)	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		04/29/19	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*
		09/17/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/21/20	ND(1)	*ND(5)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	EP-7	09/07/18	0.47	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		04/29/19	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*
		11/20/19	0.55	--	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/17/20	0.35 J	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/21/20	ND(1)	*ND(5)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	EP-8	09/07/18	ND(1)	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		04/29/19	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*
		11/20/19	0.5	--	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/17/20	0.4 J	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/22/20	ND(1)	*ND(5) UJ*	*ND(1) UJ*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1) UJ	*ND(1)*
	EP-9	09/07/18	ND(1)	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		04/29/19	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*
		11/20/19	ND(1)	--	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/17/20	0.4 J	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/21/20	ND(1)	*ND(5)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	EP-11	09/07/18	1.2	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		04/29/19	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*
		12/22/20	ND(1)	*ND(5) UJ*	*ND(1) UJ*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1) UJ	*ND(1)*
	EP-12A	09/07/18	ND(1)	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		11/21/19	ND(5)	--	*ND(5)*	ND(5)	*ND(5)*	*ND(5)*	ND(5)	ND(5)	ND(5)	*ND(5)*
		12/22/20	ND(1)	*ND(5) UJ*	*ND(1) UJ*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1) UJ	*ND(1)*
	EP-12B	09/07/18	ND(1)	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		04/29/19	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*
		11/21/19	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(2) 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*
		12/22/20	ND(1)	*ND(5) UJ*	*ND(1) UJ*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1) UJ	*ND(1)*
	[a]NMED GW Cleanup Levels		NA	NA	0.05	600	5	5	NA	NA	NA	75
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	0.00334	0.0747	302	1.71	4.38	NA	NA	NA	4.82
	[d]USEPA RSL Tap Water HQ 1.0		56	0.00033	0.0075	300	0.17	0.85	60	NA	370	0.48

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

Well Group	Location ID	Date Sampled	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)
Land Treatment Unit	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)
		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)
		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)
		08/13/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		09/18/20	--	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
	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)
		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)
		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)
		08/14/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		09/21/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	13 JB	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
	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)
		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)
		08/22/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	0.23	ND(1)	*ND(1)*	ND(1)	ND(3)
		09/19/20	--	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)
	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)
		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)
		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)
		08/13/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		09/20/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
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)
		04/30/19	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	ND(100)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	*ND(30)*
		11/21/19	--	ND(20)	46	ND(10)	*ND(100)*	ND(10)	ND(100)	ND(100)	**18**	ND(10)	*ND(10)*	*ND(10)*	*11*
		09/16/20	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	590	*ND(5)*	ND(10)	*ND(10)*	*ND(10)*	*ND(30)*
		09/17/20	--	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
		12/21/20	--	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	*ND(1)*	--	*ND(1)*	*ND(5)*	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)
		04/30/19	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	ND(100)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	*ND(30)*
		11/20/19	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	180	*ND(5)*	ND(10)	*ND(10)*	*ND(10)*	*ND(30)*
		09/16/20	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	500	*ND(5)*	ND(10)	*ND(10)*	*ND(10)*	*ND(30)*
		12/21/20	--	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	*ND(1)*	--	*ND(1)*	*ND(5)*	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)
		04/30/19	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	ND(100)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	*ND(30)*
		09/17/20	--	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)
		12/21/20	--	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	*ND(1)*	--	*ND(1)*	*ND(5)*	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)
		04/30/19	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	ND(100)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	*ND(30)*
		09/17/20	--	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)
		12/21/20	--	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	*ND(1)*	--	*ND(1)*	*ND(5)*	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)
		04/29/19	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	ND(100)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	*ND(30)*
		09/17/20	--	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)
		12/21/20	--	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	*ND(1)*	--	*ND(1)*	*ND(5)*	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)
		04/29/19	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	16	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	*ND(30)*
		11/20/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	58	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		09/17/20	--	ND(2)	6.7J/ND(10)U*	ND(1)	ND(10)	ND(1)	ND(10)	58 JB	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		12/21/20	--	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	44.6	*ND(1)*	--	*ND(1)*	*ND(5)*	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)
		04/29/19	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	ND(100)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	*ND(30)*
		11/20/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	45	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		09/17/20	--	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)
		12/22/20	--	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)
	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)
		04/29/19	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	ND(100)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	*ND(30)*
		11/20/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	13	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		09/17/20	--	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)
		12/21/20	--	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	42.2	*ND(1)*	--	*ND(1)*	*ND(5)*	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)
		04/29/19	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	ND(100)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	*ND(30)*
		12/22/20	--	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)
	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)
		11/21/19	--	ND(10)	15	ND(5)	*ND(50)*	ND(5)	ND(50)	140	*ND(5)*	ND(5)	*ND(5)*	*ND(5)*	*ND(15)*
		12/22/20	--	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)
	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)
		04/29/19	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	ND(100)	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	*ND(30)*
		11/21/19	--	ND(10)	17	ND(5)	*ND(50)*	ND(5)	ND(50)	ND(50)	**1.2**	ND(5)	*ND(5)*	*ND(5)*	*ND(15)*
		09/18/20	--	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
		12/22/20	--	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)
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	5	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		4.59	NA	5,560	NA	NA	NA	1,240	14,100	4.55	NA	1.34	32.9	7.54
	[d]USEPA RSL Tap Water HQ 1.0		0.46	NA	5,600	240	38	250	6,300	14,000	0.46	62	0.13	3.3	7.5

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	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)	Ethylbenzene (µg/L)
Land Treatment Unit	MW-4	09/21/17	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/13/18	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/06/18	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		08/13/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/18/20	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	ND(1) UJ
	MW-5	09/11/17	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/17/18	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/06/18	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		08/14/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/21/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
	SMW-2	09/11/17	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/18/18	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		08/22/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/19/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
	SMW-4	09/11/17	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/12/18	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/06/18	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		08/13/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/20/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
Evaporation Ponds	EP-2	09/06/18	2.3	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		04/30/19	4.9	*ND(10)*	ND(10)	ND(20)	*ND(10)*	*ND(30)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*
		11/21/19	ND(100)	*ND(10)*	ND(10)	ND(20)	*ND(10)*	*ND(30)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*
		09/16/20	ND(100)	*ND(10)*	ND(10)	ND(20)	*ND(10)*	*ND(30)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*
		09/17/20	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	ND(1) UJ
		12/21/20	5.75	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1)*	ND(5) UJ	ND(1)	ND(1)
	EP-3	09/06/18	3.5	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		04/30/19	6.4	*ND(10)*	ND(10)	ND(20)	*ND(10)*	*ND(30)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*
		11/20/19	29	*ND(10)*	ND(10)	ND(20)	*ND(10)*	*ND(30)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*
		09/16/20	ND(100)	*ND(10)*	ND(10)	ND(20)	*ND(10)*	*ND(30)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*
		12/21/20	1.54	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1)*	ND(5) UJ	ND(1)	ND(1)
	EP-4	09/06/18	5.2	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		04/30/19	5.8	*ND(10)*	ND(10)	ND(20)	*ND(10)*	*ND(30)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*
		09/17/20	2.1 J	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/21/20	1.06	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1)*	ND(5) UJ	ND(1)	ND(1)
	EP-5	09/06/18	1.7	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		04/30/19	ND(100)	*ND(10)*	ND(10)	ND(20)	*ND(10)*	*ND(30)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*
		09/17/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/21/20	ND(1)	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1)*	ND(5) UJ	ND(1)	ND(1)
	EP-6	09/07/18	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		04/29/19	13	*ND(10)*	ND(10)	ND(20)	*ND(10)*	*ND(30)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*
		09/17/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/21/20	ND(1)	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1)*	ND(5) UJ	ND(1)	ND(1)
	EP-7	09/07/18	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	2.1	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		04/29/19	ND(100)	*ND(10)*	ND(10)	ND(20)	*ND(10)*	4.7	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*
		11/20/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	0.9	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/17/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	1.3 J	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/21/20	ND(1)	*ND(1)*	ND(1)	ND(1)	*ND(1)*	3.01	ND(1)	ND(5)	*ND(1)*	ND(5) UJ	ND(1)	ND(1)
	EP-8	09/07/18	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	1.2	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		04/29/19	ND(100)	*ND(10)*	ND(10)	ND(20)	*ND(10)*	4.2	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*
		11/20/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	1.3	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/17/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	4.4	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/22/20	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	ND(1)
	EP-9	09/07/18	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	2.5	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		04/29/19	ND(100)	*ND(10)*	ND(10)	ND(20)	*ND(10)*	5.2	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*
		11/20/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	1.4	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/17/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	1.4 J	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/21/20	ND(1)	*ND(1)*	ND(1)	ND(1)	*ND(1)*	1.67	ND(1)	ND(5)	*ND(1)*	ND(5) UJ	ND(1)	ND(1)
	EP-11	09/07/18	0.6	*ND(1)*	ND(1)	ND(2)	*ND(1)*	**31**	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		04/29/19	ND(100)	*ND(10)*	ND(10)	ND(20)	*ND(10)*	4.6	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*
		12/22/20	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	ND(1)
	EP-12A	09/07/18	0.77	*ND(1)*	ND(1)	ND(2)	*ND(1)*	1.4	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		11/21/19	32	*ND(5)*	ND(5)	ND(10)	*ND(5)*	ND(15)	ND(5)	ND(5)	*ND(5)*	ND(5)	ND(5)	*ND(5)*
		12/22/20	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	ND(1)
	EP-12B	09/07/18	23	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		04/29/19	ND(100)	*ND(10)*	ND(10)	ND(20)	*ND(10)*	*ND(30)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*
		11/21/19	31	*ND(5)*	ND(5)	ND(10)	*ND(5)*	ND(15)	ND(5)	ND(5)	*ND(5)*	ND(5)	ND(5)	*ND(5)*
		09/18/20	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	ND(1) UJ
		12/22/20	1.21	*ND(1)*	ND(1) UJ	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1) UJ*	ND(5)	ND(1) UJ	ND(1)
	[a]NMED GW Cleanup Levels		NA	5	NA	NA	100	NA	70	NA	NA	NA	NA	700
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		810	4.55	77.6	20,900	2.29	20.3	36.5	NA	1.68	8	197	15
	[d]USEPA RSL Tap Water HQ 1.0		810	0.46	78	21,000	0.22	190	36	NA	0.87	8.3	200	1.5

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	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)
Land Treatment Unit	MW-4	09/21/17	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/13/18	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/06/18	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		08/13/19	*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)
		09/18/20	*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
	MW-5	09/11/17	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/17/18	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/06/18	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		08/14/19	*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)
		09/21/20	*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)
	SMW-2	09/11/17	--	ND(1)	ND(3)	11	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/18/18	--	ND(1)	ND(3)	11	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		08/22/19	*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)
		09/19/20	*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)
	SMW-4	09/11/17	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/12/18	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		12/06/18	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		08/13/19	*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)
		09/20/20	*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)
Evaporation Ponds	EP-2	09/06/18	--	ND(1)	0.57	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		04/30/19	*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)
		11/21/19	*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)
		09/16/20	*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)
		09/17/20	*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
		12/21/20	*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)
	EP-3	09/06/18	--	ND(1)	0.64	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	0.54	ND(1)
		04/30/19	*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)
		11/20/19	*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)
		09/16/20	*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)
		12/21/20	*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)
	EP-4	09/06/18	--	ND(1)	0.54	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		04/30/19	*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)
		09/17/20	*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)
		12/21/20	*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)
	EP-5	09/06/18	--	ND(1)	0.5	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		04/30/19	*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)
		09/17/20	*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)
		12/21/20	*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)
	EP-6	09/07/18	--	ND(1)	0.47	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		04/29/19	*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)
		09/17/20	*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)
		12/21/20	*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)
	EP-7	09/07/18	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		04/29/19	*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)
		11/20/19	*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)
		09/17/20	*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)
		12/21/20	*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)
	EP-8	09/07/18	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		04/29/19	*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)
		11/20/19	*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)
		09/17/20	*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)
		12/22/20	*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)
	EP-9	09/07/18	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		04/29/19	*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)
		11/20/19	*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)
		09/17/20	*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)
		12/21/20	*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)
	EP-11	09/07/18	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		04/29/19	*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)
		12/22/20	*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)
	EP-12A	09/07/18	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		11/21/19	*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)
		12/22/20	*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)
	EP-12B	09/07/18	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		04/29/19	*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)
		11/21/19	*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)
		09/18/20	*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
		12/22/20	*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)
	[a]NMED GW Cleanup Levels		NA	NA	5	NA	NA	NA	NA	NA	100	NA	5	1,000	100
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		1.39	447	118	143	NA	NA	NA	NA	1,210	NA	113	1,090	93.2
	[d]USEPA RSL Tap Water HQ 1.0		0.14	450	11	14	1,000	660	NA	2,000	1,200	690	11	1,100	360

Received by OCD: 9/1/2021 3:58:35 PM

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

Well Group	Location ID	Date Sampled	trans-1,3- Dichloropropene (µg/L)	Trichloroethene (µg/L)	Trichlorofluoromethane (µg/L)	Vinyl Chloride (µg/L)	Xylenes, Total (µg/L)
Land Treatment Unit	MW-4	09/21/17	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/13/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/06/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		08/13/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/18/20	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(1)	*ND(1)*	ND(1.5)
		09/17/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/06/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		08/14/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/21/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
	SMW-2	09/11/17	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/18/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		08/22/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/19/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
	SMW-4	09/11/17	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/12/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/06/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		08/13/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/20/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
Evaporation Ponds	EP-2	09/06/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	1.8
		04/30/19	ND(10)	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		11/21/19	ND(10)	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		09/16/20	ND(10)	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		09/17/20	ND(1) UJ	*ND(1) UJ*	ND(1) UJ	*ND(1) UJ*	ND(1.5) UJ
		12/21/20	ND(5)	*ND(1)*	ND(1) UJ	*ND(1)*	ND(10)
	EP-3	09/06/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		04/30/19	ND(10)	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		11/20/19	ND(10)	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		09/16/20	ND(10)	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		12/21/20	ND(5)	*ND(1)*	ND(1) UJ	*ND(1)*	ND(10)
	EP-4	09/06/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		04/30/19	ND(10)	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		09/17/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/21/20	ND(5)	*ND(1)*	ND(1) UJ	*ND(1)*	ND(10)
	EP-5	09/06/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		04/30/19	ND(10)	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		09/17/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/21/20	ND(5)	*ND(1)*	ND(1) UJ	*ND(1)*	ND(10)
	EP-6	09/07/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		04/29/19	ND(10)	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		09/17/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/21/20	ND(5)	*ND(1)*	ND(1) UJ	*ND(1)*	ND(10)
	EP-7	09/07/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		04/29/19	ND(10)	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		11/20/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/17/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/21/20	ND(5)	*ND(1)*	ND(1) UJ	*ND(1)*	ND(10)
	EP-8	09/07/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		04/29/19	ND(10)	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		11/20/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/17/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/22/20	ND(5) UJ	*ND(1)*	ND(1)	*ND(1)*	ND(10) UJ
	EP-9	09/07/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		04/29/19	ND(10)	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		11/20/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/17/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/21/20	ND(5)	*ND(1)*	ND(1) UJ	*ND(1)*	ND(10)
	EP-11	09/07/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	1
		04/29/19	ND(10)	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		12/22/20	ND(5) UJ	*ND(1)*	ND(1)	*ND(1)*	ND(10) UJ
	EP-12A	09/07/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		11/21/19	ND(5)	*ND(5)*	ND(5)	*ND(5)*	ND(7.5)
		12/22/20	ND(5) UJ	*ND(1)*	ND(1)	*ND(1)*	ND(10) UJ
	EP-12B	09/07/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		04/29/19	ND(10)	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		11/21/19	ND(5)	*ND(5)*	ND(5)	*ND(5)*	ND(7.5)
		09/18/20	ND(1) UJ	*ND(1) UJ*	ND(1) UJ	*ND(1) UJ*	ND(1.5) UJ
		12/22/20	ND(5) UJ	*ND(1)*	ND(1)	*ND(1)*	ND(10) UJ
	[a]NMED GW Cleanup Levels		NA	5	NA	2	620
	[b]40 CFR 141.62		NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	2.59	1,140	0.324	193
	[d]USEPA RSL Tap Water HQ 1.0		NA	0.49	5,200	0.019	190

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

TABLE 4-2. VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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)
Evaporation Ponds	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)*
		11/08/18	*ND(5)*	ND(5)	*ND(10)*	*ND(5)*	*ND(5)*	ND(5)	ND(5)	ND(5)	*ND(10)*	*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)
		05/29/19	*ND(20)*	ND(20)	*ND(40)*	*ND(20)*	*ND(20)*	*ND(20)*	ND(20)	*ND(20)*	*ND(40)*	*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)*
		11/21/19	*ND(10)*	ND(10)	*ND(20)*	*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)*
		12/21/20	*ND(1)*	ND(1)	*ND(1)*	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)
Western Boundary	BW-1A	3Q2020						NS - Dry				
	BW-1B	3Q2020						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)
		09/12/18	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
		09/20/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
		09/12/18	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
		09/20/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
		09/12/18	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
		09/21/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
		09/18/18	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
		09/22/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)
	BW-3A	09/14/20										
	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)
		09/12/18	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
		09/21/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
		09/18/18	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
		09/22/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)
	BW-4A	4Q2019 - 4Q2020						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)
		3Q2020						NS - SPH Present				
		12/28/20	*ND(1)*	ND(1)	*ND(1)*	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1) UJ
	BW-5A	4Q2019 - 4Q2020						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)
		03/05/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	0.48 J	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
		12/11/20	*ND(1)*	ND(1)	*ND(1)*	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	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)
		03/05/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	0.76 J	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
		12/09/20	*ND(1)*	ND(1)	*ND(1)*	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)
Deep	OW-01	10/16/19	*ND(1)*	ND(1)	*ND(2)*	*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)
		09/20/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
	OW-10	10/17/19	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	0.83	0.59	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)
		09/20/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	1.4	0.75 J	ND(1)	ND(1)	*ND(2)*	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)
	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)
		09/18/18	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
		09/20/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
		09/19/18	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	ND(1)
		3Q2019						NS - Recovery Well in Place				
		09/17/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
		03/02/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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)
		12/09/20	*ND(1)*	ND(1)	*ND(1)*	*ND(5)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(5)*	ND(1)
	[a]NMED GW Cleanup Levels		NA	200	10	5	25	7	NA	NA	NA	70
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		5.74	8,000	0.757	2.75	27.5	284	NA	NA	0.00835	11.5
	[d]USEPA RSL Tap Water HQ 1.0		0.57	8,000	0.076	0.28	2.8	280	NA	7	0.00075	1.2

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	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)	1,4-Dichloro-benzene (µg/L)
Evaporation Ponds	STP-1 to EP-2	08/31/18	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*
		11/08/18	ND(5)	*ND(10)*	*ND(5)*	ND(5)	*ND(5)*	*ND(5)*	ND(5)	ND(5)	ND(5)	*ND(5)*
		02/07/19	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		05/29/19	ND(20)	*ND(40)*	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	ND(20)	ND(20)	ND(20)	*ND(20)*
		10/09/19	0.59	*ND(4)*	*ND(2)*	ND(2)	**0.77**	*ND(2)*	ND(2)	ND(2)	ND(2)	*ND(2)*
		11/21/19	ND(10)	--	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*
		09/16/20	ND(10)	*ND(20)*	*ND(10)*	ND(10)	*ND(5)*	*ND(10)*	ND(10)	ND(10)	ND(10)	*ND(10)*
		12/21/20	ND(1)	*ND(5)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
Western Boundary	BW-1A	3Q2020					NS - Dry					
	BW-1B	3Q2020					NS - Dry					
	BW-1C	09/13/17	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/12/18	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		08/14/19	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/20/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	BW-2A	09/13/17	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/12/18	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		08/14/19	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/20/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	BW-2B	09/13/17	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/12/18	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		08/14/19	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/21/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	BW-2C	09/13/17	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/18/18	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		08/14/19	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/22/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	BW-3A	09/14/20										
	BW-3B	09/13/17	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/12/18	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		08/14/19	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/21/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	BW-3C	09/13/17	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/18/18	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		08/14/19	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/22/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	BW-4A	4Q2019 - 4Q2020					NS - Dry					
	BW-4B	03/10/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		3Q2020					NS - SPH Present					
		12/28/20	ND(1) UJ	*ND(5) UJ*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1) UJ	ND(1)	ND(1)	*ND(1)*
	BW-5A	4Q2019 - 4Q2020					NS - Dry					
	BW-5B	10/16/19	ND(1)	--	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		03/05/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/20/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/11/20	ND(1)	*ND(5)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	BW-5C	10/16/19	ND(1)	--	*ND(1)*	ND(1)	**0.67**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		03/05/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	**0.64 J**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/19/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	**0.55 J**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/09/20	ND(1)	*ND(5)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
Deep	OW-01	10/16/19	ND(1)	--	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		03/09/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/20/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/11/20	ND(1)	*ND(5)*	*ND(0.021) UJ*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	OW-10	10/17/19	ND(1)	--	*ND(1)*	ND(1)	**0.54**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		03/04/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/20/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	**0.37 J**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/11/20	ND(1)	*ND(5)*	*ND(0.022) UJ*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	OW-11	09/18/17	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/18/18	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		08/20/19	0.31	*ND(2)*	*ND(1)*	ND(1)	**0.38**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/20/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	OW-12	09/19/17	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/19/18	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		3Q2019					NS - Recovery Well in Place					
		09/17/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	OW-13	10/14/19	ND(1)	--	*ND(1)*	ND(1)	**0.8**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		03/02/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	**0.75 J**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		09/17/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	**0.66 J**	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/09/20	ND(1)	*ND(5)*	*ND(0.0197) UJ*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
	[a]NMED GW Cleanup Levels		NA	NA	0.05	600	5	5	NA	NA	NA	75
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	0.00334	0.0747	302	1.71	4.38	NA	NA	NA	4.82
	[d]USEPA RSL Tap Water HQ 1.0		56	0.00033	0.0075	300	0.17	0.85	60	NA	370	0.48

Received by OCD: 9/1/2021 3:58:35 PM

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

Well Group	Location ID	Date Sampled	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)
Evaporation Ponds	STP-1 to EP-2	08/31/18	--	ND(20)	170	ND(10)	*ND(100)*	ND(10)	ND(100)	1200	*ND(10)*	ND(10)	*ND(10)*	*ND(10)*	*ND(30)*
		11/08/18	--	ND(10)	920	ND(5)	*ND(50)*	ND(5)	ND(50)	ND(50)	*ND(5)*	ND(5)	*ND(5)*	*ND(5)*	*ND(15)*
		02/07/19	--	ND(2)	16	ND(1)	ND(10)	ND(1)	ND(10)	530	**15**	ND(1)	*ND(1)*	ND(1)	ND(3)
		05/29/19	--	ND(40)	46	ND(20)	*ND(200)*	ND(20)	ND(200)	760	*ND(20)*	ND(20)	*ND(20)*	*ND(20)*	*ND(60)*
		10/09/19	--	ND(4)	12	ND(2)	ND(20)	ND(2)	ND(20)	760	**3.9**	ND(2)	*ND(2)*	ND(2)	ND(6)
		11/21/19	--	ND(20)	47	ND(10)	*ND(100)*	ND(10)	ND(100)	ND(100)	**22**	ND(10)	*ND(10)*	*ND(10)*	**16**
		09/16/20	--	ND(20)	ND(100)	ND(10)	*ND(100)*	ND(10)	ND(100)	12000	*ND(5)*	ND(10)	*ND(10)*	*ND(10)*	*ND(30)*
		12/21/20	--	ND(1)	31	ND(1)	ND(25)	ND(1)	ND(25)	104	*ND(1)*	--	*ND(1)*	*ND(5)*	ND(1)
Western Boundary	BW-1A	3Q2020							NS - Dry						
	BW-1B	3Q2020							NS - Dry						
	BW-1C	09/13/17	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	3.6	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		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)
		08/14/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		09/20/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
	BW-2A	09/13/17	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	9.1	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		09/12/18	*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)
		08/14/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		09/20/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
	BW-2B	09/13/17	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	6.1	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		09/12/18	*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)
		08/14/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		09/21/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
	BW-2C	09/13/17	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	6.9	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		09/18/18	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	4.1	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		08/14/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		09/22/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
	BW-3A	09/14/20													
	BW-3B	09/13/17	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	8.6	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		09/12/18	*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)
		08/14/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		09/21/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
	BW-3C	09/13/17	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	3.8	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		09/18/18	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	1.9	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		08/14/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		09/22/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
	BW-4A	4Q2019 - 4Q2020							NS - Dry						
	BW-4B	03/10/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		3Q2020							NS - SPH Present						
		12/28/20	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1) UJ	ND(25)	ND(25)	*ND(1)*	--	*ND(1)*	*ND(5) UJ*	ND(1)
	BW-5A	4Q2019 - 4Q2020							NS - Dry						
	BW-5B	10/16/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		03/05/20	--	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)
		09/20/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		12/11/20	--	ND(1) UJ	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	*ND(1)*	--	*ND(1)*	*ND(5) UJ*	ND(1)
	BW-5C	10/16/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		03/05/20	--	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)
		09/19/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		12/09/20	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1)	ND(25)	ND(25)	*ND(1)*	--	*ND(1)*	*ND(5)*	ND(1)
Deep	OW-01	10/16/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		03/09/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		09/20/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		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)
	OW-10	10/17/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	5.8	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		03/04/20	--	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)
		09/20/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		12/11/20	**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)
	OW-11	09/18/17	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	5.9	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		09/18/18	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		08/20/19	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	**0.48**	ND(1)	*ND(1)*	ND(1)	ND(3)
		09/20/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
	OW-12	09/19/17	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	1.8	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		09/19/18	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	4.2	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		3Q2019							NS - Recovery Well in Place						
		09/17/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	**29**	ND(1)	*ND(1)*	ND(1)	ND(3)
	OW-13	10/14/19	--	ND(2)	3.7	ND(1)	ND(10)	ND(1)	ND(10)	6.4	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		03/02/20	--	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)
		09/17/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		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)*	ND(1)
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	5	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		4.59	NA	5,560	NA	NA	NA	1,240	14,100	4.55	NA	1.34	32.9	7.54
	[d]USEPA RSL Tap Water HQ 1.0		0.46	NA	5,600	240	38	250	6,300	14,000	0.46	62	0.13	3.3	7.5

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	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)	Ethylbenzene (µg/L)
Evaporation Ponds	STP-1 to EP-2	08/31/18	ND(100)	*ND(10)*	ND(10)	ND(20)	*ND(10)*	*ND(30)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*
		11/08/18	ND(50)	*ND(5)*	ND(5)	ND(10)	*ND(5)*	ND(15)	ND(5)	ND(5)	*ND(5)*	ND(5)	ND(5)	*ND(5)*
		02/07/19	1.2	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	0.28
		05/29/19	ND(200)	*ND(20)*	ND(20)	ND(40)	*ND(20)*	*ND(60)*	ND(20)	ND(20)	*ND(20)*	*ND(20)*	ND(20)	*ND(20)*
		10/09/19	3.3	*ND(2)*	ND(2)	2.5	*ND(2)*	2.7	ND(2)	ND(2)	*ND(2)*	ND(2)	ND(2)	*ND(2)*
		11/21/19	ND(100)	*ND(10)*	ND(10)	ND(20)	*ND(10)*	*ND(30)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*
		09/16/20	ND(100)	*ND(10)*	ND(10)	ND(20)	*ND(10)*	*ND(30)*	ND(10)	ND(10)	*ND(10)*	*ND(10)*	ND(10)	*ND(10)*
		12/21/20	ND(1)	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1)*	ND(5)	ND(1) UJ	ND(1)
Western Boundary	BW-1A	3Q2020							NS - Dry					
	BW-1B	3Q2020							NS - Dry					
	BW-1C	09/13/17	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/12/18	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		08/14/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/20/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
	BW-2A	09/13/17	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/12/18	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		08/14/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/20/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
	BW-2B	09/13/17	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/12/18	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		08/14/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/21/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
	BW-2C	09/13/17	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/18/18	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		08/14/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/22/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
	BW-3A	09/14/20												
	BW-3B	09/13/17	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/12/18	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		08/14/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/21/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
	BW-3C	09/13/17	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/18/18	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		08/14/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/22/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
	BW-4A	4Q2019 - 4Q2020							NS - Dry					
	BW-4B	03/10/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		3Q2020							NS - SPH Present					
		12/28/20	ND(1)	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1) UJ*	ND(5)	ND(1)	ND(1)
	BW-5A	4Q2019 - 4Q2020							NS - Dry					
	BW-5B	10/16/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		03/05/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/20/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/11/20	ND(1)	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1)*	ND(5)	ND(1) UJ	ND(1)
	BW-5C	10/16/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		03/05/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/19/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/09/20	ND(1)	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1)*	ND(5)	ND(1)	ND(1)
Deep	OW-01	10/16/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		03/09/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/20/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/11/20	ND(1)	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1)*	ND(5)	ND(1) UJ	ND(1)
	OW-10	10/17/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		03/04/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/20/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/11/20	ND(1)	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1)*	ND(5)	ND(1) UJ	ND(1)
	OW-11	09/18/17	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/18/18	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		08/20/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	0.41
		09/20/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
	OW-12	09/19/17	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/19/18	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		3Q2019							NS - Recovery Well in Place					
		09/17/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	**1.9**
	OW-13	10/14/19	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		03/02/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/17/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/09/20	ND(1)	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1)*	ND(5)	ND(1)	ND(1)
	[a]NMED GW Cleanup Levels		NA	5	NA	NA	100	NA	70	NA	NA	NA	NA	700
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		810	4.55	77.6	20,900	2.29	20.3	36.5	NA	1.68	8	197	15
	[d]USEPA RSL Tap Water HQ 1.0		810	0.46	78	21,000	0.22	190	36	NA	0.87	8.3	200	1.5

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	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)
Evaporation Ponds	STP-1 to EP-2	08/31/18	*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)
		11/08/18	*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)
		02/07/19	*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)
		05/29/19	*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)
		10/09/19	*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)
		11/21/19	*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)
		09/16/20	*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)
		12/21/20	*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)
Western Boundary	BW-1A	3Q2020							NS - Dry						
	BW-1B	3Q2020							NS - Dry						
	BW-1C	09/13/17	*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)
		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)
		08/14/19	*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)
		09/20/20	*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)
	BW-2A	09/13/17	*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)
		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)
		08/14/19	*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)
		09/20/20	*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)
	BW-2B	09/13/17	*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)
		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)
		08/14/19	*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)
		09/21/20	*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)
	BW-2C	09/13/17	*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)
		09/18/18	*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)
		08/14/19	*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)
		09/22/20	*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)
	BW-3A	09/14/20													
	BW-3B	09/13/17	*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)
		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)
		08/14/19	*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)
		09/21/20	*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)
	BW-3C	09/13/17	*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)
		09/18/18	*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)
		08/14/19	*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)
		09/22/20	*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)
	BW-4A	4Q2019 - 4Q2020							NS - Dry						
	BW-4B	03/10/20	*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)
		3Q2020							NS - SPH Present						
		12/28/20	*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)
	BW-5A	4Q2019 - 4Q2020							NS - Dry						
	BW-5B	10/16/19	*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)
		03/05/20	*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)
		09/20/20	*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)
		12/11/20	*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)
	BW-5C	10/16/19	*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)
		03/05/20	*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)
		09/19/20	*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)
		12/09/20	*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)
Deep	OW-01	10/16/19	*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)
		03/09/20	*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)
		09/20/20	*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)
		12/11/20	*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)
	OW-10	10/17/19	*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)
		03/04/20	*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)
		09/20/20	*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)
		12/11/20	*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)
	OW-11	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)
		09/18/18	*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)
		08/20/19	*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)
		09/20/20	*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)
	OW-12	09/19/17	*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)
		09/19/18	*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)
		3Q2019							NS - Recovery Well in Place						
		09/17/20	*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)
	OW-13	10/14/19	*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)
		03/02/20	*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)
		09/17/20	*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)
		12/09/20	*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)
	[a]NMED GW Cleanup Levels		NA	NA	5	NA	NA	NA	NA	NA	100	NA	5	1,000	100
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		1.39	447	118	143	NA	NA	NA	NA	1,210	NA	113	1,090	93.2
	[d]USEPA RSL Tap Water HQ 1.0		0.14	450	11	14	1,000	660	NA	2,000	1,200	690	11	1,100	360

Received by OCD: 9/1/2021 3:58:35 PM

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

Well Group	Location ID	Date Sampled	trans-1,3- Dichloropropene (µg/L)	Trichloroethene (µg/L)	Trichlorofluoromethane (µg/L)	Vinyl Chloride (µg/L)	Xylenes, Total (µg/L)
Evaporation Ponds	STP-1 to EP-2	08/31/18	ND(10)	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		11/08/18	ND(5)	*ND(5)*	ND(5)	*ND(5)*	ND(7.5)
		02/07/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	1.7
		05/29/19	ND(20)	*ND(20)*	ND(20)	*ND(20)*	ND(30)
		10/09/19	ND(2)	*ND(2)*	ND(2)	*ND(2)*	ND(3)
		11/21/19	ND(10)	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		09/16/20	ND(10)	*ND(10)*	ND(10)	*ND(10)*	ND(15)
		12/21/20	ND(5)	*ND(1)*	ND(1)	*ND(1) UJ*	ND(10)
Western Boundary	BW-1A	3Q2020			NS - Dry		
	BW-1B	3Q2020			NS - Dry		
	BW-1C	09/13/17	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/12/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		08/14/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/20/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
	BW-2A	09/13/17	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/12/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		08/14/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/20/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
	BW-2B	09/13/17	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/12/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		08/14/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/21/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
	BW-2C	09/13/17	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/18/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		08/14/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/22/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
	BW-3A	09/14/20					
	BW-3B	09/13/17	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/12/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		08/14/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/21/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
	BW-3C	09/13/17	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/18/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		08/14/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/22/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
	BW-4A	4Q2019 - 4Q2020			NS - Dry		
	BW-4B	03/10/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		3Q2020			NS - SPH Present		
		12/28/20	ND(5) UJ	*ND(1)*	ND(1)	*ND(1)*	ND(10)
	BW-5A	4Q2019 - 4Q2020			NS - Dry		
	BW-5B	10/16/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		03/05/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/20/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/11/20	ND(5)	*ND(1)*	ND(1)	*ND(1)*	ND(10)
	BW-5C	10/16/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		03/05/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/19/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/09/20	ND(5)	*ND(1)*	ND(1)	*ND(1)*	ND(10)
Deep	OW-01	10/16/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		03/09/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/20/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/11/20	ND(5)	*ND(1)*	ND(1)	*ND(1)*	ND(10)
	OW-10	10/17/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		03/04/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/20/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/11/20	ND(5)	*ND(1)*	ND(1)	*ND(1)*	ND(10)
	OW-11	09/18/17	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/18/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		08/20/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/20/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
	OW-12	09/19/17	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/19/18	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		3Q2019			NS - Recovery Well in Place		
		09/17/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	6.7
	OW-13	10/14/19	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		03/02/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/17/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/09/20	ND(5)	*ND(1)*	ND(1)	*ND(1)*	ND(10)
	[a]NMED GW Cleanup Levels		NA	5	NA	2	620
	[b]40 CFR 141.62		NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	2.59	1,140	0.324	193
	[d]USEPA RSL Tap Water HQ 1.0		NA	0.49	5,200	0.019	190

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

TABLE 4-2. VOLATILE ORGANIC COMPOUNDS ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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)
Deep	PW-2	09/10/14	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--
		09/18/17	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	--
		09/21/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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
	PW-3	3Q2019						NS				
		09/21/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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
	PW-4	08/27/19						NS				
		09/21/20	*ND(1)*	ND(1)	*ND(2)*	*ND(1)*	ND(1)	ND(1)	ND(1)	ND(1)	*ND(2)*	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
	[a]NMED GW Cleanup Levels		NA	200	10	5	25	7	NA	NA	NA	70
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		5.74	8,000	0.757	2.75	27.5	284	NA	NA	0.00835	11.5
	[d]USEPA RSL Tap Water HQ 1.0		0.57	8,000	0.076	0.28	2.8	280	NA	7	0.00075	1.2

Notes:
-- = Not Measured
DUP = Duplicate
H2S = Hydrogen Sulfide
MTBE = methyl tert butyl ether
NA = Not Applicable
NS = Not sampled
Q = Quarter
SPH = Separate Phase Hydrocarbon
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the respective screening levels (noted by the superscript).
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
[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, March 2017
[d]USEPA RSL Tap Water HQ 1.0 - United States Environmental Protection Agency Regional Screening Levels, Hazardous Quotient 1.0, November 2019
J = Estimated concentration
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration
JB = Estimated concentration due to blank contamination
J- = Estimated concentration, possibly biased low
R = Rejected, Data not usable

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

Well Group	Location ID	Date Sampled	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)	1,4-Dichloro-benzene (µg/L)
Deep	PW-2	09/10/14	ND(1)	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		09/18/17	ND(1)	*ND(2)*	*ND(1)*	--	*ND(1)*	*ND(1)*	ND(1)	--	ND(1)	--
		09/21/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/28/20	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*
	PW-3	3Q2019						NS				
		09/21/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/28/20	ND(1) UJ	*ND(5) UJ*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1) UJ	ND(1)	ND(1)	*ND(1)*
	PW-4	08/27/19						NS				
		09/21/20	ND(1)	*ND(2)*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1)	ND(1)	ND(1)	*ND(1)*
		12/28/20	ND(1) UJ	*ND(5) UJ*	*ND(1)*	ND(1)	*ND(1)*	*ND(1)*	ND(1) UJ	ND(1)	ND(1)	*ND(1)*
	[a]NMED GW Cleanup Levels		NA	NA	0.05	600	5	5	NA	NA	NA	75
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	0.00334	0.0747	302	1.71	4.38	NA	NA	NA	4.82
	[d]USEPA RSL Tap Water HQ 1.0		56	0.00033	0.0075	300	0.17	0.85	60	NA	370	0.48

Notes:
-- = Not Measured
DUP = Duplicate
H2S = Hydrogen Sulfide
MTBE = methyl tert butyl ether
NA = Not Applicable
NS = Not sampled
Q = Quarter
SPH = Separate Phase Hydrocarbon
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the respective screening levels (noted by the superscript).
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
[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, March 2017
[d]USEPA RSL Tap Water HQ 1.0 - United States Environmental Protection Agency Regional Screening Levels, Hazardous Quotient 1.0, November 2019
J = Estimated concentration
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration
JB = Estimated concentration due to blank contamination
J- = Estimated concentration, possibly biased low
R = Rejected, Data not usable

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

Well Group	Location ID	Date Sampled	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)
Deep	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)
		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)
		09/21/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		12/28/20	*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
	PW-3	3Q2019							NS						
		09/21/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		12/28/20	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1) UJ	ND(25)	ND(25)	*ND(1)*	--	*ND(1)*	*ND(5) UJ*	ND(1)
	PW-4	08/27/19							NS						
		09/21/20	--	ND(2)	ND(10)	ND(1)	ND(10)	ND(1)	ND(10)	ND(10)	*ND(1)*	ND(1)	*ND(1)*	ND(1)	ND(3)
		12/28/20	--	ND(1)	ND(25)	ND(1)	ND(25)	ND(1) UJ	ND(25)	ND(25)	*ND(1)*	--	*ND(1)*	*ND(5) UJ*	ND(1)
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	5	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		4.59	NA	5,560	NA	NA	NA	1,240	14,100	4.55	NA	1.34	32.9	7.54
	[d]USEPA RSL Tap Water HQ 1.0		0.46	NA	5,600	240	38	250	6,300	14,000	0.46	62	0.13	3.3	7.5

Notes:
-- = Not Measured
DUP = Duplicate
H2S = Hydrogen Sulfide
MTBE = methyl tert butyl ether
NA = Not Applicable
NS = Not sampled
Q = Quarter
SPH = Separate Phase Hydrocarbon
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the respective screening levels (noted by the superscript).
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
[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, March 2017
[d]USEPA RSL Tap Water HQ 1.0 - United States Environmental Protection Agency Regional Screening Levels, Hazardous Quotient 1.0, November 2019
J = Estimated concentration
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration
JB = Estimated concentration due to blank contamination
J- = Estimated concentration, possibly biased low
R = Rejected, Data not usable

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

Well Group	Location ID	Date Sampled	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)	Ethylbenzene (µg/L)
Deep	PW-2	09/10/14	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/18/17	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		09/21/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	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(1) R	*ND(1) R*	ND(1) R	ND(1) R	ND(5) R	*ND(1) R*	ND(5) R	ND(1) R	ND(1) R
	PW-3	3Q2019								NS				
		09/21/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/28/20	ND(1)	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1) UJ*	ND(5)	ND(1)	ND(1)
	PW-4	08/27/19								NS				
		09/21/20	ND(10)	*ND(1)*	ND(1)	ND(2)	*ND(1)*	ND(3)	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(1)
		12/28/20	ND(1)	*ND(1)*	ND(1)	ND(1)	*ND(1)*	ND(1)	ND(1)	ND(5)	*ND(1) UJ*	ND(5)	ND(1)	ND(1)
	[a]NMED GW Cleanup Levels		NA	5	NA	NA	100	NA	70	NA	NA	NA	NA	700
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		810	4.55	77.6	20,900	2.29	20.3	36.5	NA	1.68	8	197	15
	[d]USEPA RSL Tap Water HQ 1.0		810	0.46	78	21,000	0.22	190	36	NA	0.87	8.3	200	1.5

Notes:
-- = Not Measured
DUP = Duplicate
H2S = Hydrogen Sulfide
MTBE = methyl tert butyl ether
NA = Not Applicable
NS = Not sampled
Q = Quarter
SPH = Separate Phase Hydrocarbon
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the respective screening levels (noted by the superscript).
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
[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, March 2017
[d]USEPA RSL Tap Water HQ 1.0 - United States Environmental Protection Agency Regional Screening Levels, Hazardous Quotient 1.0, November 2019
J = Estimated concentration
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration
JB = Estimated concentration due to blank contamination
J- = Estimated concentration, possibly biased low
R = Rejected, Data not usable

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

Well Group	Location ID	Date Sampled	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)
Deep	PW-2	09/10/14	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/18/17	--	ND(1)	ND(3)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
		09/21/20	*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)
		12/28/20	*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
	PW-3	3Q2019							NS						
		09/21/20	*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)
		12/28/20	*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)
	PW-4	08/27/19							NS						
		09/21/20	*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)
		12/28/20	*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)
	[a]NMED GW Cleanup Levels		NA	NA	5	NA	NA	NA	NA	NA	100	NA	5	1,000	100
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		1.39	447	118	143	NA	NA	NA	NA	1,210	NA	113	1,090	93.2
	[d]USEPA RSL Tap Water HQ 1.0		0.14	450	11	14	1,000	660	NA	2,000	1,200	690	11	1,100	360

Notes:
-- = Not Measured
DUP = Duplicate
H2S = Hydrogen Sulfide
MTBE = methyl tert butyl ether
NA = Not Applicable
NS = Not sampled
Q = Quarter
SPH = Separate Phase Hydrocarbon
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the respective screening levels (noted by the superscript).
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
[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, March 2017
[d]USEPA RSL Tap Water HQ 1.0 - United States Environmental Protection Agency Regional Screening Levels, Hazardous Quotient 1.0, November 2019
J = Estimated concentration
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration
JB = Estimated concentration due to blank contamination
J- = Estimated concentration, possibly biased low
R = Rejected, Data not usable

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

Well Group	Location ID	Date Sampled	trans-1,3- Dichloropropene (µg/L)	Trichloroethene (µg/L)	Trichlorofluoromethane (µg/L)	Vinyl Chloride (µg/L)	Xylenes, Total (µg/L)
Deep	PW-2	09/10/14	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/18/17	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		09/21/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/28/20	ND(5) R	*ND(1) R*	ND(1) R	*ND(1) R*	ND(10) R
	PW-3	3Q2019			NS		
		09/21/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/28/20	ND(5) UJ	*ND(1)*	ND(1)	*ND(1)*	ND(10)
	PW-4	08/27/19			NS		
		09/21/20	ND(1)	*ND(1)*	ND(1)	*ND(1)*	ND(1.5)
		12/28/20	ND(5) UJ	*ND(1)*	ND(1)	*ND(1)*	ND(10)
	[a]NMED GW Cleanup Levels		NA	5	NA	2	620
	[b]40 CFR 141.62		NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	2.59	1,140	0.324	193
	[d]USEPA RSL Tap Water HQ 1.0		NA	0.49	5,200	0.019	190

Notes:
-- = Not Measured
DUP = Duplicate
H2S = Hydrogen Sulfide
MTBE = methyl tert butyl ether
NA = Not Applicable
NS = Not sampled
Q = Quarter
SPH = Separate Phase Hydrocarbon
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the respective screening levels (noted by the superscript).
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
[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, March 2017
[d]USEPA RSL Tap Water HQ 1.0 - United States Environmental Protection Agency Regional Screening Levels, Hazardous Quotient 1.0, November 2019
J = Estimated concentration
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration
JB = Estimated concentration due to blank contamination
J- = Estimated concentration, possibly biased low
R = Rejected, Data not usable

Released to Imaging: 11/22/2022 10:55:50 AM

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

	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-Methyl- naphthalene (ug/L)	2,4,5-Trichloro- phenol (ug/L)	2,4,6-Trichloro- phenol (ug/L)	2,4-Dichloro- phenol (ug/L)	2,4-Dimethyl- phenol (ug/L)
Eastern Boundary	OW-14	4Q2019 - 4Q2020						NS - Recovery Well in Place				
	OW-29	02/24/20	--	--	--	--	1.3	--	--	--	--	--
		09/17/20	--	--	--	--	0.3 J	--	--	--	--	--
	OW-30	4Q2019 - 4Q2020						NS - Recovery Well in Place				
	OW-54	4Q2019 - 4Q2020						NS - Recovery Well in Place				
	OW-55	4Q2019 - 4Q2020						NS - Recovery Well in Place				
	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 Present				
	OW-62	4Q2019 - 4Q2020						NS - SPH Present				
	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 Present				
	RW-2	4Q2019 - 3Q2020						NS - Recovery Well in Place				
		12/8/2020						NS - Recovery Well in Place				
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020						NS - SPH Present				
	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 Present				
		3/5/2020						NS - SPH Present				
		9/15/2020						NS - SPH Present				
		12/3/2020						NS - SPH Present				
	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 Present				
	MKTF-05	4Q2019 - 4Q2020						NS - SPH Present				
	MKTF-06	4Q2019 - 4Q2020						NS - SPH Present				
	MKTF-07	4Q2019 - 4Q2020						NS - SPH Present				
	MKTF-08	4Q2019 - 4Q2020						NS - SPH Present				
		3/5/2020						NS - SPH Present				
		9/14/2020						NS - SPH Present				
		12/3/2020						NS - SPH Present				
	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 Present				
	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 Present				
		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 Present				
	MKTF-12	4Q2019 - 4Q2020						NS - SPH Present				
	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 Present				
	MKTF-14	4Q2019 - 4Q2020						NS - SPH Present				
	MKTF-15	4Q2019 - 4Q2020						NS - SPH Present				
	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 Present				
		9/14/2020						NS - SPH Present				
		12/23/2020						NS				
	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 Present				
	[a]NMED GW Cleanup Levels		70	600	NA	75	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		11.5	302	NA	4.82	4.59	11.4	1,170	41.1	45.3	354
	[d]USEPA RSL Tap Water HQ 1.0		70	600	NA	75	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

	Location ID	Date Sampled	2,4-Dinitro- phenol (ug/L)	2,4-Dinitro Toluene (ug/L)	2,6-Dinitro Toluene (ug/L)	2-Chloro- naphthalene (ug/L)	2-Chlorophenol (ug/L)	2-Methyl- naphthalene (ug/L)	2-Methyl phenol (ug/L)	2-Nitroaniline (ug/L)	2-Nitrophenol (ug/L)	3,3'-Dichloro-benzidine (ug/L)
	OW-14	4Q2019 - 4Q2020					NS - Recovery Well in Place					
	OW-29	02/24/20	--	--	--	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--	--	--	--
Eastern Boundary	OW-30	4Q2019 - 4Q2020					NS - Recovery Well in Place					
	OW-54	4Q2019 - 4Q2020					NS - Recovery Well in Place					
	OW-55	4Q2019 - 4Q2020					NS - Recovery Well in Place					
	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	--	--	--	--	--	--	--	--	--	--
	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 Present					
	OW-62	4Q2019 - 4Q2020					NS - SPH Present					
	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)*
Tank Farm		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 Present					
	RW-2	4Q2019 - 3Q2020					NS - Recovery Well in Place					
		12/8/2020					NS - Recovery Well in Place					
	MKTF-01	4Q2019 - 4Q2020					NS - SPH Present					
	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 Present					
		3/5/2020					NS - SPH Present					
		9/15/2020					NS - SPH Present					
		12/3/2020					NS - SPH Present					
	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 Present					
	MKTF-05	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-06	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-07	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-08	4Q2019 - 4Q2020					NS - SPH Present					
		3/5/2020					NS - SPH Present					
		9/14/2020					NS - SPH Present					
		12/3/2020					NS - SPH Present					
Marketing Tank Farm Area	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 Present					
	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 Present					
		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 Present					
	MKTF-12	4Q2019 - 4Q2020					NS - SPH Present					
	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 Present					
	MKTF-14	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-15	4Q2019 - 4Q2020					NS - SPH Present					
	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 Present					
		9/14/2020					NS - SPH Present					
		12/23/2020					NS					
	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 Present					
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		38.7	2.37	0.485	733	91	35.1	NA	NA	NA	1.25
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

	Location ID	Date Sampled	3,4-Methyl phenol (ug/L)	3-Nitroaniline (ug/L)	2-Methyl-4,6-dinitro phenol (ug/L)	4-Bromophenyl-phenylether (ug/L)	4-Chloro-3-Methyl phenol (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 - Recovery Well in Place					
	OW-29	02/24/20	--	--	--	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--	--	--	--
	OW-30	4Q2019 - 4Q2020					NS - Recovery Well in Place					
	OW-54	4Q2019 - 4Q2020					NS - Recovery Well in Place					
	OW-55	4Q2019 - 4Q2020					NS - Recovery Well in Place					
	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 Present					
	OW-62	4Q2019 - 4Q2020					NS - SPH Present					
	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 Present					
	RW-2	4Q2019 - 3Q2020					NS - Recovery Well in Place					
		12/8/2020					NS - Recovery Well in Place					
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020					NS - SPH Present					
	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 Present					
		3/5/2020					NS - SPH Present					
		9/15/2020					NS - SPH Present					
		12/3/2020					NS - SPH Present					
	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 Present					
	MKTF-05	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-06	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-07	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-08	4Q2019 - 4Q2020					NS - SPH Present					
		3/5/2020					NS - SPH Present					
		9/14/2020					NS - SPH Present					
		12/3/2020					NS - SPH Present					
	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 Present					
	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 Present					
		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 Present					
	MKTF-12	4Q2019 - 4Q2020					NS - SPH Present					
	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 Present					
	MKTF-14	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-15	4Q2019 - 4Q2020					NS - SPH Present					
	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 Present					
		9/14/2020					NS - SPH Present					
		12/23/2020					NS					
	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 Present					
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	NA	1.52	NA	NA	NA	NA	NA	NA	535
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

	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)
	OW-14	4Q2019 - 4Q2020						NS - Recovery Well in Place					
	OW-29	02/24/20	--	--	--	--	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--	--	--	--	--
Eastern Boundary	OW-30	4Q2019 - 4Q2020						NS - Recovery Well in Place					
	OW-54	4Q2019 - 4Q2020						NS - Recovery Well in Place					
	OW-55	4Q2019 - 4Q2020						NS - Recovery Well in Place					
	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	--	--	--	--	--	--	--	--	--	--	--
	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 Present					
	OW-62	4Q2019 - 4Q2020						NS - SPH Present					
	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)
Tank Farm		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 Present					
	RW-2	4Q2019 - 3Q2020						NS - Recovery Well in Place					
		12/8/2020						NS - Recovery Well in Place					
	MKTF-01	4Q2019 - 4Q2020						NS - SPH Present					
	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 Present					
		3/5/2020						NS - SPH Present					
		9/15/2020						NS - SPH Present					
		12/3/2020						NS - SPH Present					
	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 Present					
	MKTF-05	4Q2019 - 4Q2020						NS - SPH Present					
	MKTF-06	4Q2019 - 4Q2020						NS - SPH Present					
	MKTF-07	4Q2019 - 4Q2020						NS - SPH Present					
	MKTF-08	4Q2019 - 4Q2020						NS - SPH Present					
		3/5/2020						NS - SPH Present					
		9/14/2020						NS - SPH Present					
		12/3/2020						NS - SPH Present					
Marketing Tank Farm Area	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 Present					
	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 Present					
		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 Present					
	MKTF-12	4Q2019 - 4Q2020						NS - SPH Present					
	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 Present					
	MKTF-14	4Q2019 - 4Q2020						NS - SPH Present					
	MKTF-15	4Q2019 - 4Q2020						NS - SPH Present					
	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 Present					
		9/14/2020						NS - SPH Present					
		12/23/2020						NS					
	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 Present					
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	0.2	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	NA	1,720	NA	0.12	0.251	0.343	NA	3.43	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	0.2	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	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 - Recovery Well in Place						
	OW-29	02/24/20	--	--	--	--	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--	--	--	--	--
	OW-30	4Q2019 - 4Q2020					NS - Recovery Well in Place						
	OW-54	4Q2019 - 4Q2020					NS - Recovery Well in Place						
	OW-55	4Q2019 - 4Q2020					NS - Recovery Well in Place						
	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 Present						
	OW-62	4Q2019 - 4Q2020					NS - SPH Present						
	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 Present						
	RW-2	4Q2019 - 3Q2020					NS - Recovery Well in Place						
		12/8/2020					NS - Recovery Well in Place						
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020					NS - SPH Present						
	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 Present						
		3/5/2020					NS - SPH Present						
		9/15/2020					NS - SPH Present						
		12/3/2020					NS - SPH Present						
	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 Present						
	MKTF-05	4Q2019 - 4Q2020					NS - SPH Present						
	MKTF-06	4Q2019 - 4Q2020					NS - SPH Present						
	MKTF-07	4Q2019 - 4Q2020					NS - SPH Present						
	MKTF-08	4Q2019 - 4Q2020					NS - SPH Present						
		3/5/2020					NS - SPH Present						
		9/14/2020					NS - SPH Present						
		12/3/2020					NS - SPH Present						
	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 Present						
	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 Present						
		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 Present						
	MKTF-12	4Q2019 - 4Q2020					NS - SPH Present						
	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 Present						
	MKTF-14	4Q2019 - 4Q2020					NS - SPH Present						
	MKTF-15	4Q2019 - 4Q2020					NS - SPH Present						
	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 Present						
		9/14/2020					NS - SPH Present						
		12/23/2020					NS						
	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 Present						
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	0.137	9.81	55.6	NA	NA	34.3	0.0343	NA	14,800	612
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	6	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	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)	Nitro-benzene (ug/L)	N-Nitroso-dimethylamine (ug/L)
Eastern Boundary	OW-14	4Q2019 - 4Q2020							NS - Recovery Well in Place						
	OW-29	02/24/20	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--	--	--	--	--	--	--
	OW-30	4Q2019 - 4Q2020							NS - Recovery Well in Place						
	OW-54	4Q2019 - 4Q2020							NS - Recovery Well in Place						
	OW-55	4Q2019 - 4Q2020							NS - Recovery Well in Place						
	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 Present						
	OW-62	4Q2019 - 4Q2020							NS - SPH Present						
	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 Present						
	RW-2	4Q2019 - 3Q2020							NS - Recovery Well in Place						
		12/8/2020							NS - Recovery Well in Place						
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020							NS - SPH Present						
	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 Present						
		3/5/2020							NS - SPH Present						
		9/15/2020							NS - SPH Present						
		12/3/2020							NS - SPH Present						
	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 Present						
	MKTF-05	4Q2019 - 4Q2020							NS - SPH Present						
	MKTF-06	4Q2019 - 4Q2020							NS - SPH Present						
	MKTF-07	4Q2019 - 4Q2020							NS - SPH Present						
	MKTF-08	4Q2019 - 4Q2020							NS - SPH Present						
		3/5/2020							NS - SPH Present						
		9/14/2020							NS - SPH Present						
		12/3/2020							NS - SPH Present						
	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 Present						
	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 Present						
		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 Present						
	MKTF-12	4Q2019 - 4Q2020							NS - SPH Present						
	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 Present						
	MKTF-14	4Q2019 - 4Q2020							NS - SPH Present						
	MKTF-15	4Q2019 - 4Q2020							NS - SPH Present						
	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 Present						
		9/14/2020							NS - SPH Present						
		12/23/2020							NS						
	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 Present						
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		885	NA	802	288	0.0976	1.39	0.411	3.28	0.343	781	1.65	1.4	0.00491
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	1	NA	50	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

	Location ID	Date Sampled	N-Nitrosodi-n-propylamine (ug/L)	N-Nitroso-diphenyl-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)
	OW-14	4Q2019 - 4Q2020								NS - Recovery Well in Place				
	OW-29	02/24/20	--	--	--	--	--	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--	--	--	--	--	--
Eastern Boundary	OW-30	4Q2019 - 4Q2020								NS - Recovery Well in Place				
	OW-54	4Q2019 - 4Q2020								NS - Recovery Well in Place				
	OW-55	4Q2019 - 4Q2020								NS - Recovery Well in Place				
	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	--	--	--	--	--	--	--	--	--	--	--	--
	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 Present				
	OW-62	4Q2019 - 4Q2020								NS - SPH Present				
	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)	--	--	--	--	--
Tank Farm		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 Present				
	RW-2	4Q2019 - 3Q2020								NS - Recovery Well in Place				
		12/8/2020								NS - Recovery Well in Place				
	MKTF-01	4Q2019 - 4Q2020								NS - SPH Present				
	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 Present				
		3/5/2020								NS - SPH Present				
		9/15/2020								NS - SPH Present				
		12/3/2020								NS - SPH Present				
	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 Present				
	MKTF-05	4Q2019 - 4Q2020								NS - SPH Present				
	MKTF-06	4Q2019 - 4Q2020								NS - SPH Present				
	MKTF-07	4Q2019 - 4Q2020								NS - SPH Present				
	MKTF-08	4Q2019 - 4Q2020								NS - SPH Present				
		3/5/2020								NS - SPH Present				
		9/14/2020								NS - SPH Present				
		12/3/2020								NS - SPH Present				
Marketing Tank Farm Area	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 Present				
	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 Present				
		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 Present				
	MKTF-12	4Q2019 - 4Q2020								NS - SPH Present				
	MKTF-13	10/29/19	--	ND(5)	*ND(5)*	7.8	38	ND(5)	ND(5)	--	--	--	--	--
		1Q2020 - 4Q2020								NS - SPH Present				
	MKTF-14	4Q2019 - 4Q2020								NS - SPH Present				
	MKTF-15	4Q2019 - 4Q2020								NS - SPH Present				
	MKTF-16	10/30/19	--	ND(5)	*ND(5)*	ND(5)	44	ND(5)	ND(5)	--	--	--	--	--
		2/5/2020								NS - SPH Present				
		9/14/2020								NS - SPH Present				
		12/23/2020								NS				
	MKTF-17	10/29/19	--	ND(10)	*ND(10)*	ND(10)	100	ND(10)	ND(10)	--	--	--	--	--
		1Q2020 - 4Q2020								NS - SPH Present				
	[a]NMED GW Cleanup Levels		NA	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	122	0.413	170	5,760	117	NA	0.00109	NA	NA	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	Location ID	Date Sampled	1,2-Diphenyl hydrazine (ug/L)	Quinoline (ug/L)	Thiophenol (Benzene thiol) (ug/L)	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)
Eastern Boundary	OW-14	4Q2019 - 4Q2020								NS - Recovery Well in Place									
	OW-29	02/24/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	OW-30	4Q2019 - 4Q2020								NS - Recovery Well in Place									
	OW-54	4Q2019 - 4Q2020								NS - Recovery Well in Place									
	OW-55	4Q2019 - 4Q2020								NS - Recovery Well in Place									
	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 Present									
	OW-62	4Q2019 - 4Q2020								NS - SPH Present									
	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 Present									
	RW-2	4Q2019 - 3Q2020								NS - Recovery Well in Place									
		12/8/2020								NS - Recovery Well in Place									
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020								NS - SPH Present									
	MKTF-02	11/19/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		02/25/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/18/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-03	10/30/2020								NS - SPH Present									
		3/5/2020								NS - SPH Present									
		9/15/2020								NS - SPH Present									
		12/3/2020								NS - SPH Present									
	MKTF-04	10/30/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		03/03/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		3Q2020 - 4Q2020								NS - SPH Present									
	MKTF-05	4Q2019 - 4Q2020								NS - SPH Present									
	MKTF-06	4Q2019 - 4Q2020								NS - SPH Present									
	MKTF-07	4Q2019 - 4Q2020								NS - SPH Present									
	MKTF-08	4Q2019 - 4Q2020								NS - SPH Present									
		3/5/2020								NS - SPH Present									
		9/14/2020								NS - SPH Present									
		12/3/2020								NS - SPH Present									
	MKTF-09	11/18/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		03/03/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		3Q2020 - 4Q2020								NS - SPH Present									
	MKTF-10	10/30/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		03/03/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		3Q2020								NS - SPH Present									
		12/18/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-11	10/30/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		03/03/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		3Q2020 - 4Q2020								NS - SPH Present									
	MKTF-12	4Q2019 - 4Q2020								NS - SPH Present									
	MKTF-13	10/29/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		1Q2020 - 4Q2020								NS - SPH Present									
	MKTF-14	4Q2019 - 4Q2020								NS - SPH Present									
	MKTF-15	4Q2019 - 4Q2020								NS - SPH Present									
	MKTF-16	10/30/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		2/5/2020								NS - SPH Present									
		9/14/2020								NS - SPH Present									
		12/23/2020								NS									
	MKTF-17	10/29/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		1Q2020 - 4Q2020								NS - SPH Present									
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		0.78	NA	NA	0.00198	0.0693	0.243	NA	0.415	0.448	0.317	0.462	NA	2.29	0.0175	98.7	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	Location ID	Date Sampled	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 - Recovery Well in Place			
	OW-29	02/24/20	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--
	OW-30	4Q2019 - 4Q2020			NS - Recovery Well in Place			
	OW-54	4Q2019 - 4Q2020			NS - Recovery Well in Place			
	OW-55	4Q2019 - 4Q2020			NS - Recovery Well in Place			
	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 Present			
	OW-62	4Q2019 - 4Q2020			NS - SPH Present			
	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 Present			
	RW-2	4Q2019 - 3Q2020			NS - Recovery Well in Place			
		12/8/2020			NS - Recovery Well in Place			
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020			NS - SPH Present			
	MKTF-02	11/19/19	--	--	--	--	--	--
		02/25/20	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--
		12/18/20	--	--	--	--	--	--
	MKTF-03	10/30/2020			NS - SPH Present			
		3/5/2020			NS - SPH Present			
		9/15/2020			NS - SPH Present			
		12/3/2020			NS - SPH Present			
	MKTF-04	10/30/19	--	--	--	--	--	--
		03/03/20	--	--	--	--	--	--
		3Q2020 - 4Q2020			NS - SPH Present			
	MKTF-05	4Q2019 - 4Q2020			NS - SPH Present			
	MKTF-06	4Q2019 - 4Q2020			NS - SPH Present			
	MKTF-07	4Q2019 - 4Q2020			NS - SPH Present			
	MKTF-08	4Q2019 - 4Q2020			NS - SPH Present			
		3/5/2020			NS - SPH Present			
		9/14/2020			NS - SPH Present			
		12/3/2020			NS - SPH Present			
	MKTF-09	11/18/19	--	--	--	--	--	--
		03/03/20	--	--	--	--	--	--
		3Q2020 - 4Q2020			NS - SPH Present			
	MKTF-10	10/30/19	--	--	--	--	--	--
		03/03/20	--	--	--	--	--	--
		3Q2020			NS - SPH Present			
		12/18/20	--	--	--	--	--	--
	MKTF-11	10/30/19	--	--	--	--	--	--
		03/03/20	--	--	--	--	--	--
		3Q2020 - 4Q2020			NS - SPH Present			
	MKTF-12	4Q2019 - 4Q2020			NS - SPH Present			
	MKTF-13	10/29/19	--	--	--	--	--	--
		1Q2020 - 4Q2020			NS - SPH Present			
	MKTF-14	4Q2019 - 4Q2020			NS - SPH Present			
	MKTF-15	4Q2019 - 4Q2020			NS - SPH Present			
	MKTF-16	10/30/19	--	--	--	--	--	--
		2/5/2020			NS - SPH Present			
		9/14/2020			NS - SPH Present			
		12/23/2020			NS			
	MKTF-17	10/29/19	--	--	--	--	--	--
		1Q2020 - 4Q2020			NS - SPH Present			
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		2.23	NA	0.0221	NA	NA	0.158
	[d]USEPA RSL Tap Water HQ 1.0		2	NA	0.4	0.2	40	3

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	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-Methyl- naphthalene (ug/L)	2,4,5-Trichloro- phenol (ug/L)	2,4,6-Trichloro- phenol (ug/L)	2,4-Dichloro- phenol (ug/L)	2,4-Dimethyl- phenol (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 Present				
		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 Present				
	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				
		3Q2020 - 4Q2020						NS - SPH Present				
	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				
		9/15/2020						NS - SPH Present				
		12/4/2020						NS - SPH Present				
	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 Present				
		9/14/2020						NS - SPH Present				
		12/4/2020						NS - SPH Present				
	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 Present				
	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 Present				
		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 Present				
	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 Present				
	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 Present				
	MKTF-36	4Q2019 - 1Q2020						NS - SPH Present				
		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 Present				
	MKTF-37	4Q2019 - 1Q2020						NS - SPH Present				
		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 Present				
	[a]NMED GW Cleanup Levels		70	600	NA	75	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		11.5	302	NA	4.82	4.59	11.4	1,170	41.1	45.3	354
	[d]USEPA RSL Tap Water HQ 1.0		70	600	NA	75	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	Location ID	Date Sampled	2,4-Dinitro- phenol (ug/L)	2,4-Dinitro Toluene (ug/L)	2,6-Dinitro Toluene (ug/L)	2-Chloro- naphthalene (ug/L)	2-Chlorophenol (ug/L)	2-Methyl- naphthalene (ug/L)	2-Methyl phenol (ug/L)	2-Nitroaniline (ug/L)	2-Nitrophenol (ug/L)	3,3'-Dichloro-benzidine (ug/L)
	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 Present					
		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 Present					
	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					
		3Q2020 - 4Q2020					NS - SPH Present					
	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					
		9/15/2020					NS - SPH Present					
		12/4/2020					NS - SPH Present					
	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 Present					
		9/14/2020					NS - SPH Present					
		12/4/2020					NS - SPH Present					
	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 Present					
	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 Present					
		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 Present					
	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)
Marketing Tank Farm Area		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 Present					
	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 Present					
	MKTF-36	4Q2019 - 1Q2020					NS - SPH Present					
		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 Present					
	MKTF-37	4Q2019 - 1Q2020					NS - SPH Present					
		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 Present					
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		38.7	2.37	0.485	733	91	35.1	NA	NA	NA	1.25
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	Location ID	Date Sampled	3,4-Methyl phenol (ug/L)	3-Nitroaniline (ug/L)	2-Methyl-4,6-dinitro phenol (ug/L)	4-Bromophenyl-phenylether (ug/L)	4-Chloro-3-Methyl phenol (ug/L)	4-Chloroaniline (ug/L)	4-Chlorophenyl- phenylether (ug/L)	4-Nitroaniline (ug/L)	4-Nitrophenol (ug/L)	Acenaphthene (ug/L)
	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 Present					
		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 Present					
	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					
		3Q2020 - 4Q2020					NS - SPH Present					
	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					
		9/15/2020					NS - SPH Present					
		12/4/2020					NS - SPH Present					
	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 Present					
		9/14/2020					NS - SPH Present					
		12/4/2020					NS - SPH Present					
	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 Present					
	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 Present					
		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 Present					
	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)
Marketing Tank Farm Area	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 Present					
	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 Present					
	MKTF-36	4Q2019 - 1Q2020					NS - SPH Present					
		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 Present					
	MKTF-37	4Q2019 - 1Q2020					NS - SPH Present					
		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 Present					
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	NA	1.52	NA	NA	NA	NA	NA	NA	535
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	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)
	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 Present					
		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 Present					
	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					
		3Q2020 - 4Q2020						NS - SPH Present					
	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					
		9/15/2020						NS - SPH Present					
		12/4/2020						NS - SPH Present					
	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 Present					
		9/14/2020						NS - SPH Present					
		12/4/2020						NS - SPH Present					
	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 Present					
	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 Present					
		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 Present					
	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)
Marketing Tank Farm Area	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 Present					
	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 Present					
	MKTF-36	4Q2019 - 1Q2020						NS - SPH Present					
		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 Present					
	MKTF-37	4Q2019 - 1Q2020						NS - SPH Present					
		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 Present					
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	0.2	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	NA	1,720	NA	0.12	0.251	0.343	NA	3.43	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	0.2	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

	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)
	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 Present						
		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 Present						
	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						
		3Q2020 - 4Q2020					NS - SPH Present						
	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						
		9/15/2020					NS - SPH Present						
		12/4/2020					NS - SPH Present						
	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 Present						
		9/14/2020					NS - SPH Present						
		12/4/2020					NS - SPH Present						
	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 Present						
	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 Present						
		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 Present						
	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)
Marketing Tank Farm Area	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 Present						
	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 Present						
	MKTF-36	4Q2019 - 1Q2020					NS - SPH Present						
		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 Present						
	MKTF-37	4Q2019 - 1Q2020					NS - SPH Present						
		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 Present						
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	0.137	9.81	55.6	NA	NA	34.3	0.0343	NA	14,800	612
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	6	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	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)	Nitro-benzene (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 Present						
		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 Present						
	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						
		3Q2020 - 4Q2020							NS - SPH Present						
	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						
		9/15/2020							NS - SPH Present						
		12/4/2020							NS - SPH Present						
	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 Present						
		9/14/2020							NS - SPH Present						
		12/4/2020							NS - SPH Present						
	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 Present						
	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 Present						
		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 Present						
	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 Present						
	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 Present						
	MKTF-36	4Q2019 - 1Q2020							NS - SPH Present						
		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 Present						
	MKTF-37	4Q2019 - 1Q2020							NS - SPH Present						
		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 Present						
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		885	NA	802	288	0.0976	1.39	0.411	3.28	0.343	781	1.65	1.4	0.00491
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	1	NA	50	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	Location ID	Date Sampled	N-Nitrosodi-n-propylamine (ug/L)	N-Nitroso-diphenyl-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)
Marketing Tank Farm Area	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 Present				
		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 Present				
	MKTF-20	11/05/19	--	ND(5)	*ND(5)*	ND(5)	30	ND(5)	ND(5)	--	--	--	--	--
		2/5/2021								NS				
		3Q2020 - 4Q2020								NS - SPH Present				
	MKTF-21	11/05/19	--	ND(5)	*ND(5)*	ND(5)	95	ND(5)	ND(5)	--	--	--	--	--
		2/5/2021								NS				
		9/15/2020								NS - SPH Present				
		12/4/2020								NS - SPH Present				
	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 Present				
		9/14/2020								NS - SPH Present				
		12/4/2020								NS - SPH Present				
	MKTF-23	10/29/19	--	ND(30)	*ND(30)*	**340**	ND(30)	61	ND(30)	--	--	--	--	--
		1Q2020 - 4Q2020								NS - SPH Present				
	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 Present				
		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 Present				
	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)	--	--	--	--	--
		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(12.1)	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 Present				
	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 Present				
	MKTF-36	4Q2019 - 1Q2020								NS - SPH Present				
		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 Present				
	MKTF-37	4Q2019 - 1Q2020								NS - SPH Present				
		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 Present				
	[a]NMED GW Cleanup Levels		NA	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	122	0.413	170	5,760	117	NA	0.00109	NA	NA	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	Location ID	Date Sampled	1,2-Diphenyl hydrazine (ug/L)	Quinoline (ug/L)	Thiophenol (Benzene thiol) (ug/L)	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)
	MKTF-18	10/29/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		02/06/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		3Q2020								NS - SPH Present									
		12/16/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-19	10/29/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		1Q2020 - 4Q2020								NS - SPH Present									
	MKTF-20	11/05/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		2/5/2021								NS									
		3Q2020 - 4Q2020								NS - SPH Present									
	MKTF-21	11/05/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		2/5/2021								NS									
		9/15/2020								NS - SPH Present									
		12/4/2020								NS - SPH Present									
	MKTF-22	10/24/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		2/27/2020								NS - SPH Present									
		9/14/2020								NS - SPH Present									
		12/4/2020								NS - SPH Present									
	MKTF-23	10/29/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		1Q2020 - 4Q2020								NS - SPH Present									
	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 Present									
		12/18/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-26	4Q2019 - 4Q2020								NS - SPH Present									
	MKTF-27	10/23/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		02/25/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/20/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/18/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-28	10/22/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Marketing Tank Farm Area		02/25/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/20/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/18/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-29	10/22/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		02/25/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/20/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/15/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	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 Present									
	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 Present									
	MKTF-36	4Q2019 - 1Q2020								NS - SPH Present									
		09/18/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/4/2020								NS - SPH Present									
	MKTF-37	4Q2019 - 1Q2020								NS - SPH Present									
		09/17/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		4Q2020								NS - SPH Present									
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		0.78	NA	NA	0.00198	0.0693	0.243	NA	0.415	0.448	0.317	0.462	NA	2.29	0.0175	98.7	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	Location ID	Date Sampled	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-18	10/29/19	--	--	--	--	--	--
		02/06/20	--	--	--	--	--	--
		3Q2020			NS - SPH Present			
		12/16/20	--	--	--	--	--	--
	MKTF-19	10/29/19	--	--	--	--	--	--
		1Q2020 - 4Q2020			NS - SPH Present			
	MKTF-20	11/05/19	--	--	--	--	--	--
		2/5/2021			NS			
		3Q2020 - 4Q2020			NS - SPH Present			
	MKTF-21	11/05/19	--	--	--	--	--	--
		2/5/2021			NS			
		9/15/2020			NS - SPH Present			
		12/4/2020			NS - SPH Present			
	MKTF-22	10/24/19	--	--	--	--	--	--
		2/27/2020			NS - SPH Present			
		9/14/2020			NS - SPH Present			
		12/4/2020			NS - SPH Present			
	MKTF-23	10/29/19	--	--	--	--	--	--
		1Q2020 - 4Q2020			NS - SPH Present			
	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 Present			
		12/18/20	--	--	--	--	--	--
	MKTF-26	4Q2019 - 4Q2020			NS - SPH Present			
	MKTF-27	10/23/19	--	--	--	--	--	--
		02/25/20	--	--	--	--	--	--
		09/20/20	--	--	--	--	--	--
		12/18/20	--	--	--	--	--	--
	MKTF-28	10/22/19	--	--	--	--	--	--
		02/25/20	--	--	--	--	--	--
		09/20/20	--	--	--	--	--	--
		12/18/20	--	--	--	--	--	--
	MKTF-29	10/22/19	--	--	--	--	--	--
		02/25/20	--	--	--	--	--	--
		09/20/20	--	--	--	--	--	--
		12/15/20	--	--	--	--	--	--
	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 Present			
	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 Present			
	MKTF-36	4Q2019 - 1Q2020			NS - SPH Present			
		09/18/20	--	--	--	--	--	--
		12/4/2020			NS - SPH Present			
	MKTF-37	4Q2019 - 1Q2020			NS - SPH Present			
		09/17/20	--	--	--	--	--	--
		4Q2020			NS - SPH Present			
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		2.23	NA	0.0221	NA	NA	0.158
	[d]USEPA RSL Tap Water HQ 1.0		2	NA	0.4	0.2	40	3

Released to Imaging: 11/22/2022 10:55:50 AM

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

	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-Methyl- naphthalene (ug/L)	2,4,5-Trichloro- phenol (ug/L)	2,4,6-Trichloro- phenol (ug/L)	2,4-Dichloro- phenol (ug/L)	2,4-Dimethyl- phenol (ug/L)
Marketing Tank Farm Area	MKTF-38	4Q2019						NS - SPH Present				
		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 Present				
	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 Present				
	MKTF-46	10/28/2019						NS - SPH Present				
		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 Present				
	MKTF-48	2Q2020 - 4Q2020						NS - SPH Present				
	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 Present				
		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 - 3Q2020						NS - SPH Present				
		4Q2020						NS				
	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	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)
	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 - H2S Present				
		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 Present				
	GWM-1	4Q2019 - 4Q2020						NS - SPH Present				
	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)
	[a]NMED GW Cleanup Levels		70	600	NA	75	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		11.5	302	NA	4.82	4.59	11.4	1,170	41.1	45.3	354
	[d]USEPA RSL Tap Water HQ 1.0		70	600	NA	75	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

	Location ID	Date Sampled	2,4-Dinitro- phenol (ug/L)	2,4-Dinitro Toluene (ug/L)	2,6-Dinitro Toluene (ug/L)	2-Chloro- naphthalene (ug/L)	2-Chlorophenol (ug/L)	2-Methyl- naphthalene (ug/L)	2-Methyl phenol (ug/L)	2-Nitroaniline (ug/L)	2-Nitrophenol (ug/L)	3,3'-Dichloro-benzidine (ug/L)
Marketing Tank Farm Area	MKTF-38	4Q2019					NS - SPH Present					
		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 Present					
	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 Present					
	MKTF-46	10/28/2019					NS - SPH Present					
		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 Present					
	MKTF-48	2Q2020 - 4Q2020					NS - SPH Present					
	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 Present					
		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 - 3Q2020					NS - SPH Present					
		4Q2020					NS					
	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	ND(31.7)	*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)*
	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 - H2S Present					
		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 Present					
	GWM-1	4Q2019 - 4Q2020					NS - SPH Present					
	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)*
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		38.7	2.37	0.485	733	91	35.1	NA	NA	NA	1.25
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	Location ID	Date Sampled	3,4-Methyl phenol (ug/L)	3-Nitroaniline (ug/L)	2-Methyl-4,6-dinitro phenol (ug/L)	4-Bromophenyl-phenylether (ug/L)	4-Chloro-3-Methyl phenol (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 Present					
		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 Present					
	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 Present					
	MKTF-46	10/28/2019					NS - SPH Present					
		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 Present					
	MKTF-48	2Q2020 - 4Q2020					NS - SPH Present					
	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
	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 Present					
		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
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)	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 - 3Q2020					NS - SPH Present					
		4Q2020					NS					
	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	--	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)
	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 - H2S Present					
		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 Present					
	GWM-1	4Q2019 - 4Q2020					NS - SPH Present					
	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
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	NA	1.52	NA	NA	NA	NA	NA	NA	535
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	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 Present					
		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 Present					
	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 Present					
	MKTF-46	10/28/2019						NS - SPH Present					
		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 Present					
	MKTF-48	2Q2020 - 4Q2020						NS - SPH Present					
	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 Present					
		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 - 3Q2020						NS - SPH Present					
		4Q2020						NS					
	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	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(31.7)	ND(10.6)
	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 - H2S Present					
		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 Present					
	GWM-1	4Q2019 - 4Q2020						NS - SPH Present					
	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)
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	0.2	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	NA	1,720	NA	0.12	0.251	0.343	NA	3.43	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	0.2	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	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 Present						
		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 Present						
	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 Present						
	MKTF-46	10/28/2019					NS - SPH Present						
		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 Present						
	MKTF-48	2Q2020 - 4Q2020					NS - SPH Present						
	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 Present						
		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 - 3Q2020					NS - SPH Present						
		4Q2020					NS						
	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	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)
	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 - H2S Present						
		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 Present						
	GWM-1	4Q2019 - 4Q2020					NS - SPH Present						
	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
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	0.137	9.81	55.6	NA	NA	34.3	0.0343	NA	14,800	612
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	6	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

	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)	Nitro-benzene (ug/L)	N-Nitroso-dimethylamine (ug/L)
Marketing Tank Farm Area	MKTF-38	4Q2019							NS - SPH Present						
		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 Present						
	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 Present						
	MKTF-46	10/28/2019							NS - SPH Present						
		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 Present						
	MKTF-48	2Q2020 - 4Q2020							NS - SPH Present						
	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 Present						
		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 - 3Q2020							NS - SPH Present						
		4Q2020							NS						
	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	ND(10.6)	ND(10.6)	ND(10.6)	ND(10.6)	*ND(10.6) UJ*	--	*ND(21.1)*	*ND(10.6)*	*ND(10.6)*	ND(10.6)	*ND(10.6)*	*ND(10.6)*	*ND(10.6)*
	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 - H2S Present						
		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 Present						
	GWM-1	4Q2019 - 4Q2020							NS - SPH Present						
	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)*
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		885	NA	802	288	0.0976	1.39	0.411	3.28	0.343	781	1.65	1.4	0.00491
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	1	NA	50	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	Location ID	Date Sampled	N-Nitrosodi-n-propylamine (ug/L)	N-Nitroso-diphenyl-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)
Marketing Tank Farm Area	MKTF-38	4Q2019								NS - SPH Present				
		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 Present				
	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 Present				
	MKTF-46	10/28/2019								NS - SPH Present				
		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 Present				
	MKTF-48	2Q2020 - 4Q2020								NS - SPH Present				
	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 Present				
		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 - 3Q2020								NS - SPH Present				
		4Q2020								NS				
	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	ND(10.6)	ND(10.6)	*ND(21.1)*	ND(10.6)	23	ND(10.6)	ND(10.6)	--	--	--	--	--
	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 - H2S Present				
		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 Present				
	GWM-1	4Q2019 - 4Q2020								NS - SPH Present				
	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)	--	--	--	--	--
	[a]NMED GW Cleanup Levels		NA	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	122	0.413	170	5,760	117	NA	0.00109	NA	NA	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

	Location ID	Date Sampled	1,2-Diphenyl hydrazine (ug/L)	Quinoline (ug/L)	Thiophenol (Benzene thiol) (ug/L)	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)
Marketing Tank Farm Area	MKTF-38	4Q2019								NS - SPH Present									
		03/05/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/19/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		4Q2020								NS - SPH Present									
	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 Present									
	MKTF-46	10/28/2019								NS - SPH Present									
		03/06/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/16/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-47	03/06/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		3Q2020 - 4Q2020								NS - SPH Present									
	MKTF-48	2Q2020 - 4Q2020								NS - SPH Present									
	MKTF-49	03/05/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/20/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/23/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MKTF-50	03/05/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		3Q2020								NS - SPH Present									
		12/16/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Wastewater Treatment	KA-3	10/21/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		03/04/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/22/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/17/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	NAPIS-1	4Q2019 - 3Q2020								NS - SPH Present									
		4Q2020								NS									
	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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	OAPIS-1	10/21/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		03/04/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/22/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/17/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	STP1-NW	10/22/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		03/04/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		3Q2020								NS - H2S Present									
		12/23/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	STP1-SW	4Q2019 - 4Q2020								NS - H2S Present									
	GWM-1	4Q2019 - 4Q2020								NS - SPH Present									
	OW-59	10/15/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		03/03/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/19/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/23/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		0.78	NA	NA	0.00198	0.0693	0.243	NA	0.415	0.448	0.317	0.462	NA	2.29	0.0175	98.7	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

	Location ID	Date Sampled	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 Present			
		03/05/20	--	--	--	--	--	--
		09/19/20	--	--	--	--	--	--
		4Q2020			NS - SPH Present			
	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 Present			
	MKTF-46	10/28/2019			NS - SPH Present			
		03/06/20	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--
		12/16/20	--	--	--	--	--	--
	MKTF-47	03/06/20	--	--	--	--	--	--
		3Q2020 - 4Q2020			NS - SPH Present			
	MKTF-48	2Q2020 - 4Q2020			NS - SPH Present			
	MKTF-49	03/05/20	--	--	--	--	--	--
		09/20/20	--	--	--	--	--	--
		12/23/20	--	--	--	--	--	--
	MKTF-50	03/05/20	--	--	--	--	--	--
		3Q2020			NS - SPH Present			
		12/16/20	--	--	--	--	--	--
Wastewater Treatment	KA-3	10/21/19	--	--	--	--	--	--
		03/04/20	--	--	--	--	--	--
		09/22/20	--	--	--	--	--	--
		12/17/20	--	--	--	--	--	--
	NAPIS-1	4Q2019 - 3Q2020			NS - SPH Present			
		4Q2020			NS			
	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	--	--	--	--	--	--
	OAPIS-1	10/21/19	--	--	--	--	--	--
		03/04/20	--	--	--	--	--	--
		09/22/20	--	--	--	--	--	--
		12/17/20	--	--	--	--	--	--
	STP1-NW	10/22/19	--	--	--	--	--	--
		03/04/20	--	--	--	--	--	--
		3Q2020			NS - H2S Present			
		12/23/20	--	--	--	--	--	--
	STP1-SW	4Q2019 - 4Q2020			NS - H2S Present			
	GWM-1	4Q2019 - 4Q2020			NS - SPH Present			
	OW-59	10/15/19	--	--	--	--	--	--
		03/03/20	--	--	--	--	--	--
		09/19/20	--	--	--	--	--	--
		12/23/20	--	--	--	--	--	--
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		2.23	NA	0.0221	NA	NA	0.158
	[d]USEPA RSL Tap Water HQ 1.0		2	NA	0.4	0.2	40	3

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	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-Methyl- naphthalene (ug/L)	2,4,5-Trichloro- phenol (ug/L)	2,4,6-Trichloro- phenol (ug/L)	2,4-Dichloro- phenol (ug/L)	2,4-Dimethyl- phenol (ug/L)
Wastewater Treatment	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	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	0.51 J	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)	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)
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
	[a]NMED GW Cleanup Levels		70	600	NA	75	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		11.5	302	NA	4.82	4.59	11.4	1,170	41.1	45.3	354
	[d]USEPA RSL Tap Water HQ 1.0		70	600	NA	75	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	Location ID	Date Sampled	2,4-Dinitro- phenol (ug/L)	2,4-Dinitro Toluene (ug/L)	2,6-Dinitro Toluene (ug/L)	2-Chloro- naphthalene (ug/L)	2-Chlorophenol (ug/L)	2-Methyl- naphthalene (ug/L)	2-Methyl phenol (ug/L)	2-Nitroaniline (ug/L)	2-Nitrophenol (ug/L)	3,3'-Dichloro-benzidine (ug/L)
Wastewater Treatment	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	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)
		12/11/20	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)*
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
	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)*
Evaporation Ponds	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)*
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		38.7	2.37	0.485	733	91	35.1	NA	NA	NA	1.25
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	Location ID	Date Sampled	3,4-Methyl phenol (ug/L)	3-Nitroaniline (ug/L)	2-Methyl-4,6-dinitro phenol (ug/L)	4-Bromophenyl-phenylether (ug/L)	4-Chloro-3-Methyl phenol (ug/L)	4-Chloroaniline (ug/L)	4-Chlorophenyl- phenylether (ug/L)	4-Nitroaniline (ug/L)	4-Nitrophenol (ug/L)	Acenaphthene (ug/L)
Wastewater Treatment	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	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)
		12/11/20	--	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)
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)
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	NA	1.52	NA	NA	NA	NA	NA	NA	535
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	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)
Wastewater Treatment	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	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)
		12/11/20	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)
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
Evaporation Ponds	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)
	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)
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	0.2	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	NA	1,720	NA	0.12	0.251	0.343	NA	3.43	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	0.2	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	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)
Wastewater Treatment	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	ND(0.5)	--	ND(0.5)	0.47 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)
		12/11/20	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)
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)
		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)
		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) 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
	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
Evaporation Ponds	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)
		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)
	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)
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	0.137	9.81	55.6	NA	NA	34.3	0.0343	NA	14,800	612
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	6	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	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)	Nitro-benzene (ug/L)	N-Nitroso-dimethylamine (ug/L)
Wastewater Treatment	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	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)*
		12/11/20	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)*
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*
Evaporation Ponds	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)*
		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)*
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		885	NA	802	288	0.0976	1.39	0.411	3.28	0.343	781	1.65	1.4	0.00491
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	1	NA	50	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	Location ID	Date Sampled	N-Nitrosodi-n-propylamine (ug/L)	N-Nitroso-diphenyl-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)
Wastewater Treatment	OW-60	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)	--	--	--	--	--
		09/21/20	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)	--	--	--	--	--
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)
		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)
		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)
		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)
		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)
		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	--	--
Evaporation Ponds	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)	--	--
		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)	--	--	--	--	--
	[a]NMED GW Cleanup Levels		NA	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	122	0.413	170	5,760	117	NA	0.00109	NA	NA	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	Location ID	Date Sampled	1,2-Diphenyl hydrazine (ug/L)	Quinoline (ug/L)	Thiophenol (Benzene thiol) (ug/L)	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)
Wastewater Treatment	OW-60	10/15/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		03/03/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/11/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Land Treatment Unit	MW-1	09/20/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/13/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/06/18	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		08/12/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/22/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW-2	09/20/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/13/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/06/18	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		08/13/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/18/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW-4	09/21/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/13/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/06/18	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		08/13/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/18/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW-5	09/11/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		09/17/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/06/18	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		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	ND(0.5)	ND(0.5)	ND(0.5)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		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)
		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)
		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)
		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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		0.78	NA	NA	0.00198	0.0693	0.243	NA	0.415	0.448	0.317	0.462	NA	2.29	0.0175	98.7	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

	Location ID	Date Sampled	Endrin (ug/L)	Endrin Aldehyde (ug/L)	Heptachlor (ug/L)	Heptachlor Epoxide (ug/L)	Methyoxy-chlor (ug/L)	Toxaphene (ug/L)
Wastewater Treatment	OW-60	10/15/19	--	--	--	--	--	--
		03/03/20	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--
		12/11/20	--	--	--	--	--	--
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	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(0.5)	ND(0.75)	*ND(0.75)*	*ND(0.5)*	ND(0.8)	*ND(10)*
		04/30/19	*ND(6.25)*	ND(5)	*ND(5)*	*ND(5)*	ND(6.25)	*ND(50)*
		11/20/19	--	--	--	--	--	--
		11/21/19	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	--	--	--	--	--	--
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		2.23	NA	0.0221	NA	NA	0.158
	[d]USEPA RSL Tap Water HQ 1.0		2	NA	0.4	0.2	40	3

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	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-Methyl- naphthalene (ug/L)	2,4,5-Trichloro- phenol (ug/L)	2,4,6-Trichloro- phenol (ug/L)	2,4-Dichloro- phenol (ug/L)	2,4-Dimethyl- phenol (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	3Q2019						NS				
		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	3Q2019						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)
		12/28/20	ND(9.3)	ND(9.3)	ND(9.3)	*ND(9.3)*	--	--	ND(9.3)	ND(9.3)	ND(9.3)	ND(9.3)
	[a]NMED GW Cleanup Levels		70	600	NA	75	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		11.5	302	NA	4.82	4.59	11.4	1,170	41.1	45.3	354
	[d]USEPA RSL Tap Water HQ 1.0		70	600	NA	75	NA	NA	NA	NA	NA	NA

Notes:
-- = Not Measured
DUP = Duplicate
H2S = Hydrogen Sulfide
MTBE = methyl tert butyl ether
NA = Not Applicable
NS = Not sampled
Q = Quarter
SPH = Separate Phase Hydrocarbon
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the respective screening levels (noted by the superscript).
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
[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, March 2017
[d]USEPA RSL Tap Water HQ 1.0 - United States Environmental Protection Agency Regional Screening Levels, Hazardous Quotient 1.0, November 2019
J = Estimated concentration
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration
JB = Estimated concentration due to blank contamination
J- = Estimated concentration, possibly biased low
R = Rejected, Data not usable

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	Location ID	Date Sampled	2,4-Dinitro- phenol (ug/L)	2,4-Dinitro Toluene (ug/L)	2,6-Dinitro Toluene (ug/L)	2-Chloro- naphthalene (ug/L)	2-Chlorophenol (ug/L)	2-Methyl- naphthalene (ug/L)	2-Methyl phenol (ug/L)	2-Nitroaniline (ug/L)	2-Nitrophenol (ug/L)	3,3'-Dichloro-benzidine (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	3Q2019						NS				
		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	3Q2019						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)
		12/28/20	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)*
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		38.7	2.37	0.485	733	91	35.1	NA	NA	NA	1.25
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
-- = Not Measured
DUP = Duplicate
H2S = Hydrogen Sulfide
MTBE = methyl tert butyl ether
NA = Not Applicable
NS = Not sampled
Q = Quarter
SPH = Separate Phase Hydrocarbon
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the respective screening levels (noted by the superscript).
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
[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, March 2017
[d]USEPA RSL Tap Water HQ 1.0 - United States Environmental Protection Agency Regional Screening Levels, Hazardous Quotient 1.0, November 2019
J = Estimated concentration
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration
JB = Estimated concentration due to blank contamination
J- = Estimated concentration, possibly biased low
R = Rejected, Data not usable

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	Location ID	Date Sampled	3,4-Methyl phenol (ug/L)	3-Nitroaniline (ug/L)	2-Methyl-4,6-dinitro phenol (ug/L)	4-Bromophenyl-phenylether (ug/L)	4-Chloro-3-Methyl phenol (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	3Q2019					NS					
		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	3Q2019					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)
		12/28/20	--	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)
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	NA	1.52	NA	NA	NA	NA	NA	NA	535
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
-- = Not Measured
DUP = Duplicate
H2S = Hydrogen Sulfide
MTBE = methyl tert butyl ether
NA = Not Applicable
NS = Not sampled
Q = Quarter
SPH = Separate Phase Hydrocarbon
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the respective screening levels (noted by the superscript).
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
[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, March 2017
[d]USEPA RSL Tap Water HQ 1.0 - United States Environmental Protection Agency Regional Screening Levels, Hazardous Quotient 1.0, November 2019
J = Estimated concentration
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration
JB = Estimated concentration due to blank contamination
J- = Estimated concentration, possibly biased low
R = Rejected, Data not usable

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	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	3Q2019						NS					
		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	3Q2019						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)
		12/28/20	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)
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	0.2	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	NA	1,720	NA	0.12	0.251	0.343	NA	3.43	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	0.2	NA	NA	NA	NA	NA

Notes:
-- = Not Measured
DUP = Duplicate
H2S = Hydrogen Sulfide
MTBE = methyl tert butyl ether
NA = Not Applicable
NS = Not sampled
Q = Quarter
SPH = Separate Phase Hydrocarbon
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the respective screening levels (noted by the superscript).
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
[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, March 2017
[d]USEPA RSL Tap Water HQ 1.0 - United States Environmental Protection Agency Regional Screening Levels, Hazardous Quotient 1.0, November 2019
J = Estimated concentration
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration
JB = Estimated concentration due to blank contamination
J- = Estimated concentration, possibly biased low
R = Rejected, Data not usable

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	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	3Q2019					NS						
		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	3Q2019					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)
		12/28/20	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)
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	0.137	9.81	55.6	NA	NA	34.3	0.0343	NA	14,800	612
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	6	NA	NA	NA	NA	NA	NA	NA

Notes:
-- = Not Measured
DUP = Duplicate
H2S = Hydrogen Sulfide
MTBE = methyl tert butyl ether
NA = Not Applicable
NS = Not sampled
Q = Quarter
SPH = Separate Phase Hydrocarbon
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the respective screening levels (noted by the superscript).
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
[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, March 2017
[d]USEPA RSL Tap Water HQ 1.0 - United States Environmental Protection Agency Regional Screening Levels, Hazardous Quotient 1.0, November 2019
J = Estimated concentration
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration
JB = Estimated concentration due to blank contamination
J- = Estimated concentration, possibly biased low
R = Rejected, Data not usable

Released to Imaging: 11/22/2022 10:55:50 AM

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

	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)	Nitro-benzene (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	3Q2019							NS						
		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	3Q2019							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)*
		12/28/20	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)*
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		885	NA	802	288	0.0976	1.39	0.411	3.28	0.343	781	1.65	1.4	0.00491
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	1	NA	50	NA	NA	NA	NA	NA	NA

Notes:
-- = Not Measured
DUP = Duplicate
H2S = Hydrogen Sulfide
MTBE = methyl tert butyl ether
NA = Not Applicable
NS = Not sampled
Q = Quarter
SPH = Separate Phase Hydrocarbon
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the respective screening levels (noted by the superscript).
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
[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, March 2017
[d]USEPA RSL Tap Water HQ 1.0 - United States Environmental Protection Agency Regional Screening Levels, Hazardous Quotient 1.0, November 2019
J = Estimated concentration
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration
JB = Estimated concentration due to blank contamination
J- = Estimated concentration, possibly biased low
R = Rejected, Data not usable

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	Location ID	Date Sampled	N-Nitrosodi-n-propylamine (ug/L)	N-Nitroso-diphenyl-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)
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	3Q2019								NS				
		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	3Q2019								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)	--	--
		12/28/20	ND(9.3)	ND(9.3)	*ND(18.6)*	ND(9.3)	ND(9.3)	ND(9.3)	ND(9.3)	--	--	--	--	--
	[a]NMED GW Cleanup Levels		NA	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	122	0.413	170	5,760	117	NA	0.00109	NA	NA	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
-- = Not Measured
DUP = Duplicate
H2S = Hydrogen Sulfide
MTBE = methyl tert butyl ether
NA = Not Applicable
NS = Not sampled
Q = Quarter
SPH = Separate Phase Hydrocarbon
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the respective screening levels (noted by the superscript).
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
[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, March 2017
[d]USEPA RSL Tap Water HQ 1.0 - United States Environmental Protection Agency Regional Screening Levels, Hazardous Quotient 1.0, November 2019
J = Estimated concentration
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration
JB = Estimated concentration due to blank contamination
J- = Estimated concentration, possibly biased low
R = Rejected, Data not usable

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	Location ID	Date Sampled	1,2-Diphenyl hydrazine (ug/L)	Quinoline (ug/L)	Thiophenol (Benzene thiol) (ug/L)	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)
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)
		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)
		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)
		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)
		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)
		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	3Q2019								NS									
		09/21/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/28/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	PW-4	3Q2019								NS									
		09/21/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/28/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		0.78	NA	NA	0.00198	0.0693	0.243	NA	0.415	0.448	0.317	0.462	NA	2.29	0.0175	98.7	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
-- = Not Measured
DUP = Duplicate
H2S = Hydrogen Sulfide
MTBE = methyl tert butyl ether
NA = Not Applicable
NS = Not sampled
Q = Quarter
SPH = Separate Phase Hydrocarbon
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the respective screening levels (noted by the superscript).
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
[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, March 2017
[d]USEPA RSL Tap Water HQ 1.0 - United States Environmental Protection Agency Regional Screening Levels, Hazardous Quotient 1.0, November 2019
J = Estimated concentration
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration
JB = Estimated concentration due to blank contamination
J- = Estimated concentration, possibly biased low
R = Rejected, Data not usable

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

	Location ID	Date Sampled	Endrin (ug/L)	Endrin Aldehyde (ug/L)	Heptachlor (ug/L)	Heptachlor Epoxide (ug/L)	Methyoxy-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(0.5)	ND(0.75)	*ND(0.75)*	*ND(0.5)*	ND(0.8)	*ND(10)*
		11/21/19	ND(1.25)	ND(1)	*ND(1)*	*ND(1)*	ND(1.25)	*ND(10)*
		12/22/20	--	--	--	--	--	--
	EP-12B	09/07/18	ND(0.5)	ND(0.75)	*ND(0.75)*	*ND(0.5)*	ND(0.8)	*ND(10)*
		04/29/19	*ND(6.25)*	ND(5)	*ND(5)*	*ND(5)*	ND(6.25)	*ND(50)*
		11/21/19	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	3Q2019			NS			
		09/21/20	--	--	--	--	--	--
		12/28/20	--	--	--	--	--	--
	PW-4	3Q2019			NS			
		09/21/20	--	--	--	--	--	--
		12/28/20	--	--	--	--	--	--
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		2.23	NA	0.0221	NA	NA	0.158
	[d]USEPA RSL Tap Water HQ 1.0		2	NA	0.4	0.2	40	3

Notes:
-- = Not Measured
DUP = Duplicate
H2S = Hydrogen Sulfide
MTBE = methyl tert butyl ether
NA = Not Applicable
NS = Not sampled
Q = Quarter
SPH = Separate Phase Hydrocarbon
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the respective screening levels (noted by the superscript).
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
[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, March 2017
[d]USEPA RSL Tap Water HQ 1.0 - United States Environmental Protection Agency Regional Screening Levels, Hazardous Quotient 1.0, November 2019
J = Estimated concentration
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration
JB = Estimated concentration due to blank contamination
J- = Estimated concentration, possibly biased low
R = Rejected, Data not usable

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	Nickel, Total (µg/L)	Aluminum, Total (µg/L)	Antimony, Total (µg/L)	Arsenic, Total (µg/L)	Barium, Total (µg/L)	Beryllium, Total (µg/L)	Boron, Total (µg/L)
	OW-14	4Q2019 - 4Q2020				NS - Recovery Well in Place			
	OW-29	10/14/19	23	420	ND(1)	*ND(5)*	74	ND(2)	550
		02/24/20	21	560	ND(1)	**0.88 J**	78	ND(2)	540
		09/17/20	23 J	110	ND(1)	0.63 J	75	*ND(10)*	510
		12/09/20	26.2	ND(200)	ND(2)	*ND(1)*	79.2	ND(3)	528
	OW-30	10/14/2020	4Q2019 - 4Q2020						
	OW-50	10/15/19	ND(10)	150	ND(1)	**2.6**	54	ND(2)	360
		03/02/20	ND(10)	180	ND(1) UJ	**2**	55	ND(2)	360
		09/17/20	28 J	2100	ND(1)	**2.7**	130	*ND(10)*	350
		12/09/20	ND(6)	1250	ND(2)	**1.78**	91.4	ND(3)	353
Eastern Boundary	OW-52	10/15/19	ND(10)	450	ND(1)	0.83	30	ND(2)	350
		03/02/20	ND(10)	130	ND(1) UJ	0.7 J	30	ND(2)	360
		09/17/20	28 J	**51000**	ND(1)	**3.1**	350	*ND(10)*	360
		12/09/20	ND(6)	ND(200)	ND(2)	*ND(1)*	29.3	ND(3)	322
	OW-53	4Q2019 - 4Q2020				NS - Dry			
	OW-54	4Q2019 - 4Q2020				NS - Recovery Well in Place			
	OW-55	4Q2019 - 4Q2020				NS - Recovery Well in Place			
	OW-56	10/15/19	66	4300	ND(5)	**4.2**	470	0.46	630
		03/02/20	69	2300	ND(1) UJ	**3.2**	470	0.53 J	540
		09/21/20	86 J+	800	ND(1)	**5.6**	590	ND(2)	620
		12/23/20	79.1	4570 J	ND(2)	**2.54**	572	ND(3)	553
	OW-57	11/05/19	84	14000	ND(1)	**4.7**	**4700**	0.85	280
		03/05/20	85	2800	ND(1)	**4.3 J**	**4200**	0.31 J	300
		09/18/20	71 J-	5400	ND(1)	**4.1**	**4000**	ND(2)	270
		12/23/20	78.8	**24500 J**	ND(2)	**3.01**	**4740**	ND(3)	262
	OW-58	11/18/19	26	3200	0.43	**3.3**	**4500**	ND(2)	350
		1Q2020				NS			
		09/17/20	26 J-	4900	ND(1)	**3.2**	**4500**	ND(2)	330
		12/22/20	25.7 J	1680 J	ND(2)	**2.84**	**5000**	ND(3)	337
	OW-58A	4Q2019				NS			
		03/06/20	37 J-	3700	ND(1)	**4.9 J**	730	ND(2)	470 J-
		09/18/20	29 J-	670	ND(1)	**5.3**	730	ND(2)	460
		12/23/20	30.7	409 J	ND(2)	**4.41**	711	ND(3)	426
Tank Farm	OW-61	4Q2019 - 4Q2020				NS - SPH Present			
	OW-62	4Q2019 - 4Q2020				NS - SPH Present			
	OW-63	11/18/19	27	62	ND(1)	**11**	**4400**	ND(2)	350
		03/04/20	29	280	ND(1)	**9**	**4400**	0.28 J	360
		09/16/20	39 J	ND(100)	ND(1)	**8.2**	**4000**	*ND(10)*	300
		12/11/20	22.5	ND(200)	ND(2)	**8.59**	**4370**	ND(3)	328
	OW-64	11/18/19	ND(10)	3500	ND(1)	**3.7**	290	ND(2)	2300
		03/04/20	9 J	6500	ND(1)	**4**	410	0.4 J	1500
		09/22/20	4.8 J+	2300 J+	ND(1)	**3.5**	360	ND(2)	2400
		12/11/20	ND(6)	1060	ND(2)	**2.51**	323	ND(3)	1720
	OW-65	4Q2019 - 4Q2020				NS - SPH Present			
	RW-1	4Q2019 - 3Q2020				NS - Recovery Well in Place			
		4Q2020				NS - SPH Present			
	[a]NMED GW Cleanup Levels		NA	NA	6	10	2,000	4	NA
	[b]40 CFR 141.62		NA	NA	6	10	2,000	4	NA
	[c]NMED Tap Water		372	19,900	7.26	0.855	3,280	12.4	3,950
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	6	10	2,000	4	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	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)	Magnesium, Total (µg/L)
	OW-14	4Q2019 - 4Q2020				NS - Recovery Well in Place				
	OW-29	10/14/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	320	0.12	--
		02/24/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	470	0.21 J	--
		09/17/20	**ND(10)**	--	*ND(30)*	*ND(30)*	ND(30)	260	0.052 J	--
		12/09/20	**ND(5)**	--	*ND(10)*	*ND(10)*	ND(20)	338	ND(1)	--
	OW-30	10/14/2020		Recovery						
	OW-50	10/15/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	49	ND(0.5)	--
		03/02/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	60	0.096 J	--
		09/17/20	**ND(10)**	--	**28 J**	*ND(30)*	ND(30)	820	0.92	--
		12/09/20	**ND(5)**	--	*ND(10)*	*ND(10)*	ND(20)	502	ND(1)	--
Eastern Boundary	OW-52	10/15/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	200	0.057	--
		03/02/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	91	ND(0.5)	--
		09/17/20	**ND(10)**	--	**61**	**14 J**	ND(30)	**17000**	13	--
		12/09/20	**ND(5)**	--	*ND(10)*	*ND(10)*	ND(20)	ND(200)	ND(1)	--
	OW-53	4Q2019 - 4Q2020				NS - Dry				
	OW-54	4Q2019 - 4Q2020				NS - Recovery Well in Place				
	OW-55	4Q2019 - 4Q2020				NS - Recovery Well in Place				
	OW-56	10/15/19	ND(2)	--	3.4	3.7	4.7	3100	2.1	--
		03/02/20	ND(2)	--	2.9 J	3.7 J	5.5 J	1900	2	--
		09/21/20	ND(2)	--	*ND(6)*	**6.8**	ND(6)	1300 J+	0.84	--
		12/23/20	**ND(5)**	66800	*ND(10)*	*ND(10)*	29.8	4440 J	1.19	13500
	OW-57	11/05/19	ND(2)	--	2.8	*ND(6)*	ND(6)	11000	8	--
		03/05/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	6300	1.5	--
		09/18/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	6300	2.3	--
		12/23/20	**ND(5)**	146000	**12.8**	*ND(10)*	21.1	**17400 J**	ND(1)	20600
	OW-58	11/18/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	9900	1.6	--
		1Q2020				NS				
		09/17/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	11000	2	--
		12/22/20	**ND(5)**	131000	*ND(10)*	*ND(10)*	ND(20)	8650	ND(1)	35800
	OW-58A	4Q2019				NS				
		03/06/20	ND(2)	--	4.1 J-	*ND(6) UJ*	ND(6)	6700	6.4	--
		09/18/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	5400	1.6	--
		12/23/20	**ND(5)**	67700	*ND(10)*	*ND(10)*	ND(20)	4400 J	1.73	21100
Tank Farm	OW-61	4Q2019 - 4Q2020				NS - SPH Present				
	OW-62	4Q2019 - 4Q2020				NS - SPH Present				
	OW-63	11/18/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	6200	0.24	--
		03/04/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	6800	0.36 J	--
		09/16/20	**ND(10)**	--	*ND(30)*	*ND(30)*	ND(30)	5800	0.11 J	--
		12/11/20	**ND(5)**	80900	*ND(10)*	*ND(10)*	ND(20)	6440	ND(1)	15300
	OW-64	11/18/19	ND(2)	--	3.1	*ND(6)*	ND(6)	1100	1.1	--
		03/04/20	ND(2)	--	**8.3**	*ND(6)*	5.2 J	2200	1.8	--
		09/22/20	ND(2)	--	2.3 J	*ND(6)*	ND(6)	960 J+	0.57 JB	--
		12/11/20	**ND(5)**	12100 JB	*ND(10)*	*ND(10)*	ND(20)	603	ND(1)	3450 JB
	OW-65	4Q2019 - 4Q2020				NS - SPH Present				
	RW-1	4Q2019 - 3Q2020				NS - Recovery Well in Place				
		4Q2020				NS - SPH Present				
	[a]NMED GW Cleanup Levels		5	NA	50	NA	NA	NA	15	NA
	[b]40 CFR 141.62		5	NA	100	NA	NA	NA	NA	NA
	[c]NMED Tap Water		6.24	NA	5.7	5.98	790	13,800	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		5	NA	100	NA	1,300	NA	15	NA

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

Well Group	Location ID	Date Sampled	Manganese, Total (µg/L)	Mercury, Total (µg/L)	Molybdenum, Total (µg/L)	Potassium, Total (µg/L)	Selenium, Total (µg/L)	Silver, Total (µg/L)
	OW-14	4Q2019 - 4Q2020			NS - Recovery Well in Place			
	OW-29	10/14/19	300	ND(0.2)	ND(8)	--	ND(5)	ND(5)
		02/24/20	360	ND(0.2)	ND(8)	--	ND(1)	ND(5)
		09/17/20	330	ND(0.2)	ND(40)	--	ND(1)	ND(25)
		12/09/20	349	ND(0.2)	*ND(100)*	--	ND(5)	ND(5)
	OW-30	10/14/2020			NS - Recovery Well in Place			
	OW-50	10/15/19	110	ND(0.2)	ND(8)	--	ND(1)	ND(5)
		03/02/20	110	ND(0.2)	ND(8)	--	ND(1)	ND(5)
		09/17/20	170	0.15 J+	ND(40)	--	ND(1)	24 J
		12/09/20	134	ND(0.2)	*ND(100)*	--	ND(5)	ND(5)
Eastern Boundary	OW-52	10/15/19	26	0.15	7.1	--	ND(1)	ND(5)
		03/02/20	26	ND(0.2)	ND(8)	--	ND(1)	ND(5)
		09/17/20	640	0.18 J+	ND(40)	--	4.2	8.1 J
		12/09/20	34.1	ND(0.2)	*ND(100)*	--	ND(5)	ND(5)
	OW-53	4Q2019 - 4Q2020			NS - Dry			
	OW-54	4Q2019 - 4Q2020			NS - Recovery Well in Place			
	OW-55	4Q2019 - 4Q2020			NS - Recovery Well in Place			
	OW-56	10/15/19	240	ND(0.2)	ND(8)	--	ND(5)	ND(5)
		03/02/20	260	ND(0.2)	ND(8)	--	ND(1)	2.2 J
		09/21/20	**3200**	ND(0.2)	ND(8)	--	ND(1)	ND(5)
		12/23/20	846	ND(0.2)	*ND(100)*	2160	ND(5)	ND(5)
	OW-57	11/05/19	**4100**	ND(0.2)	ND(8)	--	2	1.8
		03/05/20	**2500**	ND(0.2)	ND(8)	--	ND(5)	3 J
		09/18/20	**2500**	ND(0.2)	ND(8)	--	0.89 J	1.3 J
		12/23/20	**3990**	ND(0.2)	*ND(100)*	3490	ND(5)	ND(5)
	OW-58	11/18/19	**2100**	ND(0.2)	ND(8)	--	ND(1)	ND(0.5)
		1Q2020			NS			
		09/17/20	2000	ND(0.2)	ND(8)	--	0.75 J	ND(5)
		12/22/20	**2050**	ND(0.2) UJ	*ND(100)*	ND(1000)	ND(5)	ND(5) R
	OW-58A	4Q2019			NS			
		03/06/20	1400	ND(0.2) UJ	ND(8)	--	ND(5)	ND(5)
		09/18/20	1400	ND(0.2)	ND(8)	--	ND(1) UJ	ND(5)
		12/23/20	1360	ND(0.2)	*ND(100)*	ND(1000)	ND(5)	ND(5)
Tank Farm	OW-61	4Q2019 - 4Q2020			NS - SPH Present			
	OW-62	4Q2019 - 4Q2020			NS - SPH Present			
	OW-63	11/18/19	1000	ND(0.8)	ND(8)	--	ND(1)	ND(0.5)
		03/04/20	1200	ND(0.2)	ND(8)	--	ND(1)	ND(5)
		09/16/20	980	ND(0.2)	ND(40)	--	ND(1)	ND(25)
		12/11/20	1050	ND(0.2)	*ND(100)*	ND(1000)	ND(5)	ND(5)
	OW-64	11/18/19	360	ND(0.2)	40	--	ND(1)	ND(0.5)
		03/04/20	450	ND(0.2)	17	--	0.48 J	ND(5)
		09/22/20	410	ND(0.2) UJ	24	--	ND(1)	ND(5)
		12/11/20	331	ND(0.2)	*ND(100)*	1400	ND(5)	ND(5)
	OW-65	4Q2019 - 4Q2020			NS - SPH Present			
	RW-1	4Q2019 - 3Q2020			NS - Recovery Well in Place			
		4Q2020			NS - SPH Present			
	[a]NMED GW Cleanup Levels		NA	2	NA	NA	50	50
	[b]40 CFR 141.62		NA	2	NA	NA	50	NA
	[c]NMED Tap Water		2,020	NA	98.7	NA	98.7	81.2
	[d]USEPA RSL Tap Water HQ 1.0		NA	2	NA	NA	50	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	Sodium, Total (µg/L)	Thallium, Total (µg/L)	Uranium, Total (µg/L)	Vanadium, Total (µg/L)	Zinc, Total (µg/L)
	OW-14	4Q2019 - 4Q2020			NS - Recovery Well in Place		
	OW-29	10/14/19	--	ND(0.5)	--	--	ND(10)
		02/24/20	--	0.073 J	**56**	--	ND(10)
		09/17/20	--	ND(0.25)	**49**	--	ND(50)
		12/09/20	--	ND(1)	**51.1**	--	ND(20) UJ
	OW-30	10/14/2020				NS - Recovery Well in Place	
	OW-50	10/15/19	--	ND(0.5)	--	--	ND(10)
		03/02/20	--	ND(0.5)	12	--	ND(10)
		09/17/20	--	ND(0.25)	17	--	ND(50)
		12/09/20	--	ND(1)	13	--	ND(20)
Eastern Boundary	OW-52	10/15/19	--	ND(0.5)	--	--	ND(10)
		03/02/20	--	ND(0.5)	10	--	ND(10)
		09/17/20	--	ND(0.25)	13	--	64
		12/09/20	--	ND(1)	10.6	--	ND(20)
	OW-53	4Q2019 - 4Q2020			NS - Dry		
	OW-54	4Q2019 - 4Q2020			NS - Recovery Well in Place		
	OW-55	4Q2019 - 4Q2020			NS - Recovery Well in Place		
	OW-56	10/15/19	--	ND(0.5)	--	--	14
		03/02/20	--	ND(0.5)	17	--	9.4 J
		09/21/20	--	ND(0.25)	20	--	14
		12/23/20	340000	ND(1)	14	--	ND(20)
	OW-57	11/05/19	--	0.057	0.86	--	12
		03/05/20	--	ND(0.5)	0.45 J	--	8.3 J
		09/18/20	--	ND(0.25)	0.48 J	--	ND(10)
		12/23/20	237000	ND(1)	ND(5)	--	22.7
	OW-58	11/18/19	--	ND(0.5)	0.37	--	ND(10)
		1Q2020			NS		
		09/17/20	--	ND(0.25)	0.41 J	--	ND(10) UJ
		12/22/20	274000	ND(1)	ND(5)	--	ND(20)
	OW-58A	4Q2019			NS		
		03/06/20	--	ND(0.5)	0.93	--	ND(10) UJ
		09/18/20	--	ND(0.25)	0.51	--	ND(10)
		12/23/20	395000	ND(1)	ND(5)	--	ND(20)
Tank Farm	OW-61	4Q2019 - 4Q2020			NS - SPH Present		
	OW-62	4Q2019 - 4Q2020			NS - SPH Present		
	OW-63	11/18/19	--	ND(0.5)	0.13	--	ND(10)
		03/04/20	--	ND(0.5)	0.14 J	--	ND(10)
		09/16/20	--	ND(0.25)	ND(0.5)	--	ND(50)
		12/11/20	262000	ND(1)	ND(5)	--	ND(20)
	OW-64	11/18/19	--	ND(0.5)	19	--	ND(10)
		03/04/20	--	ND(0.5)	9.5	--	6.2 J
		09/22/20	--	ND(0.25)	15	--	ND(10) UJ
		12/11/20	400000	ND(1)	14	--	ND(20)
	OW-65	4Q2019 - 4Q2020			NS - SPH Present		
	RW-1	4Q2019 - 3Q2020			NS - Recovery Well in Place		
		4Q2020			NS - SPH Present		
	[a]NMED GW Cleanup Levels		NA	2	30	NA	NA
	[b]40 CFR 141.62		NA	2	NA	NA	NA
	[c]NMED Tap Water		NA	143	NA	63.1	5,960
	[d]USEPA RSL Tap Water HQ 1.0		NA	2	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	Nickel, Total (µg/L)	Aluminum, Total (µg/L)	Antimony, Total (µg/L)	Arsenic, Total (µg/L)	Barium, Total (µg/L)	Beryllium, Total (µg/L)	Boron, Total (µg/L)
Tank Farm	RW-2	4Q2019 - 3Q2020				NS - Recovery Well in Place			
		4Q2020				NS - SPH Present			
	RW-5	4Q2019 - 3Q2020				NS - Recovery Well in Place			
		4Q2020				NS - SPH Present			
	RW-6	4Q2019 - 3Q2020				NS - Recovery Well in Place			
		4Q2020				NS - SPH Present			
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020				NS - SPH Present			
	MKTF-02	11/19/19	17	12000	*ND(10)*	*ND(20)*	330	1.4	1100
		02/25/20	7.5 J	340	ND(5)	*ND(5)*	120	0.35 J	590
		09/21/20	17 J+	870	ND(1)	**1.5**	270	ND(2)	810
		12/18/20	16.5	200	*ND(20)*	*ND(10)*	788	ND(3)	881
	MKTF-03	4Q2019 - 4Q2020				NS - SPH Present			
	MKTF-04	10/30/19	7.7	1300	ND(1)	**9.7**	**3600**	ND(2)	570
		03/03/20	7 J	1300	ND(1) UJ	**9.2**	**2800**	ND(2)	490
		3Q2020 - 4Q2020				NS - SPH Present			
	MKTF-05	4Q2019 - 4Q2020				NS - SPH Present			
	MKTF-06	4Q2019 - 4Q2020				NS - SPH Present			
	MKTF-07	4Q2019 - 4Q2020				NS - SPH Present			
	MKTF-08	4Q2019 - 4Q2020				NS - SPH Present			
	MKTF-09	11/18/19	10	1100	ND(1)	**3.1**	690	0.44	410
		03/03/20	11	770 J	ND(1) UJ	**1.9**	540	ND(2)	310
		3Q2020 - 4Q2020				NS - SPH Present			
	MKTF-10	10/30/19	11	1800	*ND(10)*	**9.3**	**11000**	ND(2)	510
		03/03/20	18	5300	ND(1) UJ	**8.1**	**10000**	0.53 J	380
		3Q2020				NS - SPH Present			
		12/18/20	16.4	3130	ND(2)	**11.8**	**9400**	ND(3)	445
	MKTF-11	10/30/19	28	1000	ND(5)	**22**	**2300**	ND(2)	670
		03/03/20	32	850	ND(1) UJ	**12**	**2900**	0.42 J	590
		3Q2020 - 4Q2020				NS - SPH Present			
	MKTF-12	4Q2019 - 4Q2020				NS - SPH Present			
	MKTF-13	10/29/19	ND(10)	450	ND(1)	**3.3**	**6800**	ND(2)	220
		1Q2020 - 4Q2020				NS - SPH Present			
	MKTF-14	4Q2019 - 4Q2020				NS - SPH Present			
	MKTF-15	4Q2019 - 4Q2020				NS - SPH Present			
	MKTF-16	10/30/19	43	2300	ND(5)	**12**	**4700**	0.49	760
		1Q2020 - 3Q2020				NS - SPH Present			
		12/23/20	18.3	2590 J	--	--	**2720**	ND(3)	407
		12/28/20	19.1	2440	ND(2)	**10.7**	**3290**	ND(3)	439
	MKTF-17	10/29/19	ND(10)	2300	ND(1)	**6.8**	1800	ND(2)	440
		1Q2020 - 4Q2020				NS - SPH Present			
[a]NMED GW Cleanup Levels			NA	NA	6	10	2,000	4	NA
[b]40 CFR 141.62			NA	NA	6	10	2,000	4	NA
[c]NMED Tap Water			372	19,900	7.26	0.855	3,280	12.4	3,950
[d]USEPA RSL Tap Water HQ 1.0			NA	NA	6	10	2,000	4	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	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)	Magnesium, Total (µg/L)
Tank Farm	RW-2	4Q2019 - 3Q2020				NS - Recovery Well in Place				
		4Q2020				NS - SPH Present				
	RW-5	4Q2019 - 3Q2020				NS - Recovery Well in Place				
		4Q2020				NS - SPH Present				
	RW-6	4Q2019 - 3Q2020				NS - Recovery Well in Place				
		4Q2020				NS - SPH Present				
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020				NS - SPH Present				
	MKTF-02	11/19/19	ND(2)	310000	4.6	*ND(6)*	5.3	5700	5.4	55000
		02/25/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	2000	0.52 J	--
		09/21/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	990 J+	0.7 JB	--
		12/18/20	**ND(5)**	631000	*ND(10)*	*ND(10)*	ND(20)	2560	ND(10)	109000
	MKTF-03	4Q2019 - 4Q2020				NS - SPH Present				
	MKTF-04	10/30/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	7600	0.52	--
		03/03/20	ND(2)	--	*ND(6)*	*ND(6)*	11	6000	1.9	--
		3Q2020 - 4Q2020				NS - SPH Present				
	MKTF-05	4Q2019 - 4Q2020				NS - SPH Present				
	MKTF-06	4Q2019 - 4Q2020				NS - SPH Present				
	MKTF-07	4Q2019 - 4Q2020				NS - SPH Present				
	MKTF-08	4Q2019 - 4Q2020				NS - SPH Present				
	MKTF-09	11/18/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	3400	1.4	--
		03/03/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	2700	1.1	--
		3Q2020 - 4Q2020				NS - SPH Present				
	MKTF-10	10/30/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	**15000**	0.86	--
		03/03/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	12000	2.7	--
		3Q2020				NS - SPH Present				
		12/18/20	**ND(5)**	277000	*ND(10)*	*ND(10)*	ND(20)	10700	1.01	70000
	MKTF-11	10/30/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	4900	0.66	--
		03/03/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	8500	1.5	--
		3Q2020 - 4Q2020				NS - SPH Present				
	MKTF-12	4Q2019 - 4Q2020				NS - SPH Present				
	MKTF-13	10/29/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	**20000**	0.61	--
		1Q2020 - 4Q2020				NS - SPH Present				
	MKTF-14	4Q2019 - 4Q2020				NS - SPH Present				
	MKTF-15	4Q2019 - 4Q2020				NS - SPH Present				
	MKTF-16	10/30/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	**17000**	3.7	--
		1Q2020 - 3Q2020				NS - SPH Present				
		12/23/20	**ND(5)**	--	*ND(10)*	*ND(10)*	ND(20)	10700 J	--	--
		12/28/20	**ND(5)**	--	*ND(10)*	*ND(10)*	ND(20)	12400	2.41	--
	MKTF-17	10/29/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	4800	1.2	--
		1Q2020 - 4Q2020				NS - SPH Present				
[a]NMED GW Cleanup Levels			5	NA	50	NA	NA	NA	15	NA
[b]40 CFR 141.62			5	NA	100	NA	NA	NA	NA	NA
[c]NMED Tap Water			6.24	NA	5.7	5.98	790	13,800	NA	NA
[d]USEPA RSL Tap Water HQ 1.0			5	NA	100	NA	1,300	NA	15	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	Manganese, Total (µg/L)	Mercury, Total (µg/L)	Molybdenum, Total (µg/L)	Potassium, Total (µg/L)	Selenium, Total (µg/L)	Silver, Total (µg/L)
Tank Farm	RW-2	4Q2019 - 3Q2020			NS - Recovery Well in Place			
		4Q2020			NS - SPH Present			
	RW-5	4Q2019 - 3Q2020			NS - Recovery Well in Place			
		4Q2020			NS - SPH Present			
	RW-6	4Q2019 - 3Q2020			NS - Recovery Well in Place			
		4Q2020			NS - SPH Present			
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020			NS - SPH Present			
	MKTF-02	11/19/19	**2900**	ND(0.2)	ND(8)	4300	ND(20)	5.9
		02/25/20	**3000**	ND(0.2)	ND(8)	--	ND(5)	5
		09/21/20	2000	ND(0.2)	ND(8)	--	ND(1)	3.3J/ND(5)U*
		12/18/20	**6140**	ND(0.2)	*ND(100)*	5680	*ND(50)*	ND(5)
	MKTF-03	4Q2019 - 4Q2020			NS - SPH Present			
	MKTF-04	10/30/19	1600	ND(0.2)	ND(8)	--	ND(5)	1.7
		03/03/20	1900	ND(0.2)	ND(8)	--	ND(1)	2.6 J
		3Q2020 - 4Q2020			NS - SPH Present			
	MKTF-05	4Q2019 - 4Q2020			NS - SPH Present			
	MKTF-06	4Q2019 - 4Q2020			NS - SPH Present			
	MKTF-07	4Q2019 - 4Q2020			NS - SPH Present			
	MKTF-08	4Q2019 - 4Q2020			NS - SPH Present			
	MKTF-09	11/18/19	**4300**	ND(0.2)	ND(8)	--	ND(1)	ND(0.5)
		03/03/20	**4000**	ND(0.2)	7.2 J	--	ND(1)	2.5 J
		3Q2020 - 4Q2020			NS - SPH Present			
	MKTF-10	10/30/19	**6300**	ND(0.2)	ND(8)	--	ND(5)	4.5
		03/03/20	**5500**	ND(0.2)	ND(8)	--	ND(1)	5.2
		3Q2020			NS - SPH Present			
		12/18/20	**5070**	ND(0.2) UJ	*ND(100)*	1470	ND(5)	ND(5)
	MKTF-11	10/30/19	**2500**	ND(0.2)	12	--	ND(5)	2.7
		03/03/20	**4600**	ND(0.2)	7.4 J	--	ND(1)	4.3 J
		3Q2020 - 4Q2020			NS - SPH Present			
	MKTF-12	4Q2019 - 4Q2020			NS - SPH Present			
	MKTF-13	10/29/19	**4700**	ND(0.2)	ND(8)	--	ND(5)	3.1
		1Q2020 - 4Q2020			NS - SPH Present			
	MKTF-14	4Q2019 - 4Q2020			NS - SPH Present			
	MKTF-15	4Q2019 - 4Q2020			NS - SPH Present			
	MKTF-16	10/30/19	**4900**	ND(0.2)	ND(8)	--	ND(10)	2.4
		1Q2020 - 3Q2020			NS - SPH Present			
		12/23/20	**2540**	ND(0.2)	*ND(100)*	--	--	ND(5)
		12/28/20	**2680**	ND(0.2)	*ND(100)*	--	ND(5)	ND(5)
	MKTF-17	10/29/19	**3400**	ND(0.2)	ND(8)	--	ND(1)	2.5
		1Q2020 - 4Q2020			NS - SPH Present			
[a]NMED GW Cleanup Levels			NA	2	NA	NA	50	50
[b]40 CFR 141.62			NA	2	NA	NA	50	NA
[c]NMED Tap Water			2,020	NA	98.7	NA	98.7	81.2
[d]USEPA RSL Tap Water HQ 1.0			NA	2	NA	NA	50	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	Sodium, Total (µg/L)	Thallium, Total (µg/L)	Uranium, Total (µg/L)	Vanadium, Total (µg/L)	Zinc, Total (µg/L)
Tank Farm	RW-2	4Q2019 - 3Q2020			NS - Recovery Well in Place		
		4Q2020			NS - SPH Present		
	RW-5	4Q2019 - 3Q2020			NS - Recovery Well in Place		
		4Q2020			NS - SPH Present		
	RW-6	4Q2019 - 3Q2020			NS - Recovery Well in Place		
		4Q2020			NS - SPH Present		
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020			NS - SPH Present		
	MKTF-02	11/19/19	1300000	*ND(5)*	**44**	--	14
		02/25/20	--	*ND(2.5)*	5.9	--	ND(10)
		09/21/20	--	ND(0.25)	10	--	ND(10)
		12/18/20	1150000	*ND(10)*	*ND(50)*	--	ND(20)
	MKTF-03	4Q2019 - 4Q2020			NS - SPH Present		
	MKTF-04	10/30/19	--	*ND(2.5)*	--	--	ND(10)
		03/03/20	--	ND(0.5)	8.1	--	7.9 J
		3Q2020 - 4Q2020			NS - SPH Present		
	MKTF-05	4Q2019 - 4Q2020			NS - SPH Present		
	MKTF-06	4Q2019 - 4Q2020			NS - SPH Present		
	MKTF-07	4Q2019 - 4Q2020			NS - SPH Present		
	MKTF-08	4Q2019 - 4Q2020			NS - SPH Present		
	MKTF-09	11/18/19	--	ND(0.5)	6.3	--	ND(10)
		03/03/20	--	ND(0.5)	8.1	--	ND(10)
		3Q2020 - 4Q2020			NS - SPH Present		
	MKTF-10	10/30/19	--	*ND(2.5)*	--	--	ND(10)
		03/03/20	--	ND(0.5)	0.74	--	6.5 J
		3Q2020			NS - SPH Present		
		12/18/20	321000	ND(1)	ND(5)	--	ND(20)
	MKTF-11	10/30/19	--	*ND(2.5)*	--	--	ND(10)
		03/03/20	--	ND(0.5)	8.9	--	ND(10)
		3Q2020 - 4Q2020			NS - SPH Present		
	MKTF-12	4Q2019 - 4Q2020			NS - SPH Present		
	MKTF-13	10/29/19	--	ND(0.5)	--	--	ND(10)
		1Q2020 - 4Q2020			NS - SPH Present		
	MKTF-14	4Q2019 - 4Q2020			NS - SPH Present		
	MKTF-15	4Q2019 - 4Q2020			NS - SPH Present		
	MKTF-16	10/30/19	--	*ND(5)*	--	--	19
		1Q2020 - 3Q2020			NS - SPH Present		
		12/23/20	--	--	--	--	23.8
		12/28/20	--	ND(1)	ND(5)	--	ND(20)
	MKTF-17	10/29/19	--	ND(0.5)	--	--	7.8
		1Q2020 - 4Q2020			NS - SPH Present		
[a]NMED GW Cleanup Levels			NA	2	30	NA	NA
[b]40 CFR 141.62			NA	2	NA	NA	NA
[c]NMED Tap Water			NA	143	NA	63.1	5,960
[d]USEPA RSL Tap Water HQ 1.0			NA	2	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	Nickel, Total (µg/L)	Aluminum, Total (µg/L)	Antimony, Total (µg/L)	Arsenic, Total (µg/L)	Barium, Total (µg/L)	Beryllium, Total (µg/L)	Boron, Total (µg/L)
Marketing Tank Farm Area	MKTF-18	10/29/19	ND(10)	1000	0.81	**1.8**	**2100**	ND(2)	420
		02/06/20	10	18000 J	ND(1) UJ	**2.5 J**	**2900 J-**	1 J	240
		3Q2020				NS - SPH Present			
		12/16/20	ND(6)	2910	ND(2)	**1.7**	**2250**	ND(3)	381
	MKTF-19	10/29/19	5.2	11000	ND(1)	**13**	**2100**	0.65	360
		1Q2020 - 4Q2020				NS - SPH Present			
	MKTF-20	11/05/19	7.3	250	ND(1)	**16**	2000	ND(2)	120
		2Q2020				NS			
		3Q2020 - 4Q2020				NS - SPH Present			
	MKTF-21	11/05/19	55	67	ND(1)	**22**	**14000**	0.3	810
		2Q2020							
		3Q2020 - 4Q2020				NS - SPH Present			
	MKTF-22	10/24/19	10	13000	ND(1)	**2**	1700	0.36	420
		1Q2020 - 4Q2020				NS - SPH Present			
	MKTF-23	10/29/19	21	780	0.52	**9**	1900	ND(2)	520
		1Q2020 - 4Q2020				NS - SPH Present			
	MKTF-24	10/23/19	34	1400	ND(1)	**2.4**	370	ND(2)	660
		02/25/20	37	2900	0.63 J	**1.6 J**	430	1 J	660
		09/19/20	62	**71000**	ND(1)	**6.5**	1200	**5**	690
		12/18/20	44.2	12500	ND(2)	**3.63**	628	ND(3)	687
	MKTF-25	10/23/19	35	**25000**	ND(5)	**6.4**	940	1.3	760
		02/27/20	28	14000	ND(1) UJ	**3.8**	470	0.81 J	580
		3Q2020				NS - SPH Present			
		12/18/20	27	4980	ND(2)	**3.67**	341	ND(3)	710
	MKTF-26	4Q2019 - 4Q2020				NS - SPH Present			
	MKTF-27	10/23/19	31	320	ND(5)	*ND(5)*	44	ND(2)	630
		02/25/20	28	1200	ND(5)	*ND(10)*	91	0.46 J	300
		09/20/20	30 J-	180 J+	ND(5)	*ND(5)*	46	ND(2)	620
		12/18/20	34.4	930	*ND(20)*	*ND(10)*	60.2	ND(3)	531
	MKTF-28	10/22/19	4.5	2300	ND(1)	**1.9**	81	0.33	2000
		02/25/20	5 J	2600	ND(1)	**1.5**	89	1 J	1500
		09/20/20	ND(10) UJ	910 J+	ND(1)	**1.3**	66	ND(2)	2000
		12/18/20	ND(6)	1070	ND(2)	*ND(1)*	85.4	ND(3)	1620
	MKTF-29	10/22/19	9.8	1900	ND(5)	*ND(5)*	92	0.45	760
		02/25/20	11	64	ND(5)	*ND(5)*	79	ND(2)	570
		09/20/20	15 J-	ND(20)	ND(1)	**0.94 J**	130	ND(2)	760
		12/15/20	19.7	206	ND(2)	*ND(1)*	155	ND(3)	696
	MKTF-30	10/23/19	25	12000	ND(1)	**1.9**	160	0.35	670
		02/27/20	17	4400	0.41 J	**0.93 J+**	67	1 J	560
		09/20/20	19 J-	7700	ND(1)	**1.2**	110	ND(2)	700
		12/15/20	15.6 J	961 J	ND(2)	*ND(1)*	42.6 J	ND(3)	693
	MKTF-31	10/22/19	10	9800	ND(1)	*ND(5)*	210	0.42	760
		02/25/20	ND(10)	2900	ND(1)	0.64 J	150	ND(2)	450
		09/19/20	7.3 J	7700	ND(1)	**1.1**	170	0.9 J	770
		12/18/20	6.62	2620 J	ND(2)	*ND(1)*	151	ND(3)	625
	[a]NMED GW Cleanup Levels		NA	NA	6	10	2,000	4	NA
	[b]40 CFR 141.62		NA	NA	6	10	2,000	4	NA
	[c]NMED Tap Water		372	19,900	7.26	0.855	3,280	12.4	3,950
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	6	10	2,000	4	NA

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

Well Group	Location ID	Date Sampled	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)	Magnesium, Total (µg/L)
Marketing Tank Farm Area	MKTF-18	10/29/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	3400	0.45	--
		02/06/20	ND(2)	--	**8.4**	4 J	4.3 J	9800 J	9.1 J	--
		3Q2020				NS - SPH Present				
		12/16/20	**ND(5)**	102000	*ND(10)*	*ND(10)*	ND(20)	4010	1.01	26100
	MKTF-19	10/29/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	**15000**	9	--
		1Q2020 - 4Q2020				NS - SPH Present				
	MKTF-20	11/05/19	ND(2)	--	*ND(6)*	*ND(6)*	75	4300	1.6	--
		2Q2020				NS				
		3Q2020 - 4Q2020				NS - SPH Present				
	MKTF-21	11/05/19	ND(2)	--	*ND(6)*	*ND(6)*	14	9000	2.2	--
		2Q2020								
		3Q2020 - 4Q2020				NS - SPH Present				
	MKTF-22	10/24/19	ND(2)	--	1.6	*ND(6)*	ND(6)	12000	5.4	--
		1Q2020 - 4Q2020				NS - SPH Present				
	MKTF-23	10/29/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	510	1.9	--
		1Q2020 - 4Q2020				NS - SPH Present				
	MKTF-24	10/23/19	ND(2)	--	*ND(6)*	5.1	ND(6)	900	2.1	--
		02/25/20	ND(2)	--	*ND(6)*	5 J	ND(6)	1900	4.1	--
		09/19/20	ND(2)	--	**26**	**20**	15	**32000**	**32**	--
		12/18/20	**ND(5)**	182000	*ND(10)*	**10.5**	ND(20)	7250	**19.8**	34900
	MKTF-25	10/23/19	ND(2)	--	**8.6**	**6.2**	11	10000	12	--
		02/27/20	ND(2)	--	4.4 J	3.6 J	9.9	5600	6.9	--
		3Q2020				NS - SPH Present				
		12/18/20	**ND(5)**	166000	*ND(10)*	*ND(10)*	ND(20)	4070	2.23	32800
	MKTF-26	4Q2019 - 4Q2020				NS - SPH Present				
	MKTF-27	10/23/19	ND(2)	--	*ND(6)*	*ND(6)*	4.5	190	ND(2.5)	--
		02/25/20	ND(2)	--	*ND(6)*	*ND(6)*	13	1300	1 J	--
		09/20/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	210	ND(2.5)	--
		12/18/20	**ND(5)**	248000	*ND(10)*	*ND(10)*	ND(20)	779	ND(10)	46700
	MKTF-28	10/22/19	ND(2)	--	*ND(6)*	*ND(6)*	4.1	1600	1.9	--
		02/25/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	2000	2.2	--
		09/20/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	510	0.56	--
		12/18/20	**ND(5)**	59900	*ND(10)*	*ND(10)*	ND(20)	952	ND(1)	13300
	MKTF-29	10/22/19	ND(2)	--	*ND(6)*	*ND(6)*	5.7	660	0.64	--
		02/25/20	ND(2)	--	*ND(6)*	*ND(6)*	4.4 J	40	ND(2.5)	--
		09/20/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	33 J	0.14 J	--
		12/15/20	**ND(5)**	377000	*ND(10)*	*ND(10)*	ND(20)	ND(200)	ND(1)	58000
	MKTF-30	10/23/19	ND(2)	--	3.3	*ND(6)*	ND(6)	4900	3.4	--
		02/27/20	ND(2)	--	*ND(6)*	*ND(6)*	5 J	1900	1.7	--
		09/20/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	3300	2.7	--
		12/15/20	**ND(5)**	77300	*ND(10)*	*ND(10)*	ND(20)	498 J	ND(1) UJ	14800
	MKTF-31	10/22/19	ND(2)	--	2.5	*ND(6)*	ND(6)	3800	3.5	--
		02/25/20	ND(2)	--	*ND(6)*	*ND(6)*	5 J	1000	1.2	--
		09/19/20	ND(2)	--	2.3 J	*ND(6)*	ND(6)	3300	2.5	--
		12/18/20	**ND(5)**	109000	*ND(10)*	*ND(10)*	ND(20)	1500 J	1.11	23700
	[a]NMED GW Cleanup Levels		5	NA	50	NA	NA	NA	15	NA
	[b]40 CFR 141.62		5	NA	100	NA	NA	NA	NA	NA
	[c]NMED Tap Water		6.24	NA	5.7	5.98	790	13,800	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		5	NA	100	NA	1,300	NA	15	NA

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

Well Group	Location ID	Date Sampled	Manganese, Total (µg/L)	Mercury, Total (µg/L)	Molybdenum, Total (µg/L)	Potassium, Total (µg/L)	Selenium, Total (µg/L)	Silver, Total (µg/L)
Marketing Tank Farm Area	MKTF-18	10/29/19	2000	ND(0.2)	ND(8)	--	ND(1)	ND(5)
		02/06/20	**3700**	ND(0.2)	ND(8)	--	ND(5)	ND(5)
		3Q2020			NS - SPH Present			
		12/16/20	**2350**	ND(0.2)	*ND(100)*	1110 JB	ND(5)	ND(5)
	MKTF-19	10/29/19	**2400**	ND(0.2)	ND(8)	--	ND(5)	1.5
		1Q2020 - 4Q2020			NS - SPH Present			
	MKTF-20	11/05/19	2000	0.042	ND(8)	--	ND(5)	ND(5)
		2Q2020			NS			
		3Q2020 - 4Q2020			NS - SPH Present			
	MKTF-21	11/05/19	**5800**	ND(0.2)	14	--	ND(1)	6.9
		2Q2020						
		3Q2020 - 4Q2020			NS - SPH Present			
	MKTF-22	10/24/19	**2900**	0.097	ND(8)	--	ND(5)	1.5
		1Q2020 - 4Q2020			NS - SPH Present			
	MKTF-23	10/29/19	1900	ND(0.2)	9.1	--	ND(5)	1.5
		1Q2020 - 4Q2020			NS - SPH Present			
	MKTF-24	10/23/19	**2300**	0.12	ND(8)	--	ND(1)	2.8
		02/25/20	**2200**	ND(0.2)	ND(8)	--	ND(5)	3 J
		09/19/20	**4400**	0.13 J+	ND(8)	--	5.9	ND(5)
		12/18/20	**2840**	ND(0.2)	*ND(100)*	5150	ND(5)	ND(5)
	MKTF-25	10/23/19	**5800**	0.16	ND(8)	--	ND(5)	4.4
		02/27/20	**3400**	ND(0.2)	ND(8)	--	1.2	3.7 J
		3Q2020			NS - SPH Present			
		12/18/20	**3200**	ND(0.2)	*ND(100)*	3110	ND(5)	ND(5)
	MKTF-26	4Q2019 - 4Q2020			NS - SPH Present			
	MKTF-27	10/23/19	130	0.1	ND(8)	--	ND(5)	5.3
		02/25/20	320	ND(0.2)	ND(8)	--	7.1 J	14
		09/20/20	450	ND(0.2)	ND(8)	--	ND(5)	4.5 J
		12/18/20	295	ND(0.2)	*ND(100)*	14700	*ND(50)*	ND(5)
	MKTF-28	10/22/19	120	0.05	ND(8)	--	ND(5)	ND(5)
		02/25/20	110	ND(0.2)	ND(8)	--	1	ND(5)
		09/20/20	88	ND(0.2)	ND(8)	--	ND(1)	ND(5)
		12/18/20	59	ND(0.2) UJ	*ND(100)*	2930	ND(5)	ND(5)
	MKTF-29	10/22/19	**2100**	0.042	ND(8)	--	ND(5)	3.4
		02/25/20	**2400**	ND(0.2)	ND(8)	--	ND(5)	5
		09/20/20	**4500**	ND(0.2)	ND(8)	--	ND(1)	6.2
		12/15/20	**4770**	ND(0.2)	*ND(100)*	1020	ND(5)	ND(5)
	MKTF-30	10/23/19	500	0.22	ND(8)	--	ND(5)	1.6
		02/27/20	270	ND(0.2)	ND(40)	--	0.51 J	ND(5)
		09/20/20	440	0.13 J+	ND(8)	--	1.6	ND(5)
		12/15/20	60.3 J	ND(0.2)	*ND(100)*	ND(1000)	ND(5)	ND(5)
	MKTF-31	10/22/19	170	ND(0.2)	ND(8)	--	ND(5)	2.9
		02/25/20	59	ND(0.2)	ND(8)	--	ND(1)	2 J
		09/19/20	140	ND(0.2)	ND(8)	--	1	ND(5)
		12/18/20	61.6 J	ND(0.2) UJ	*ND(100)*	2020	ND(5)	ND(5)
[a]NMED GW Cleanup Levels			NA	2	NA	NA	50	50
[b]40 CFR 141.62			NA	2	NA	NA	50	NA
[c]NMED Tap Water			2,020	NA	98.7	NA	98.7	81.2
[d]USEPA RSL Tap Water HQ 1.0			NA	2	NA	NA	50	NA

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

Well Group	Location ID	Date Sampled	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-18	10/29/19	--	ND(0.5)	--	--	ND(10)
		02/06/20	--	0.099 J	2.5 J	--	15
		3Q2020			NS - SPH Present		
		12/16/20	251000	ND(1)	ND(5) UJ	--	ND(20)
	MKTF-19	10/29/19	--	ND(0.5)	--	--	30
		1Q2020 - 4Q2020			NS - SPH Present		
	MKTF-20	11/05/19	--	ND(0.5)	0.52	--	440
		2Q2020			NS		
		3Q2020 - 4Q2020			NS - SPH Present		
	MKTF-21	11/05/19	--	*ND(2.5)*	2.7	--	96
		2Q2020					
		3Q2020 - 4Q2020			NS - SPH Present		
	MKTF-22	10/24/19	--	0.052	--	--	14
		1Q2020 - 4Q2020			NS - SPH Present		
	MKTF-23	10/29/19	--	ND(0.5)	--	--	ND(10)
		1Q2020 - 4Q2020			NS - SPH Present		
	MKTF-24	10/23/19	--	ND(0.5)	--	--	ND(10)
		02/25/20	--	0.071 J	18	--	7 J
		09/19/20	--	ND(1.2) UJ	14 J	--	39
		12/18/20	438000	ND(1)	16.1	--	ND(20)
	MKTF-25	10/23/19	--	*ND(2.5)*	--	--	21
		02/27/20	--	0.061 J	**34**	--	11
		3Q2020			NS - SPH Present		
		12/18/20	447000	ND(1)	**46.2**	--	ND(20)
	MKTF-26	4Q2019 - 4Q2020			NS - SPH Present		
	MKTF-27	10/23/19	--	*ND(2.5)*	--	--	ND(10)
		02/25/20	--	*ND(5)*	**34**	--	ND(10) UJ
		09/20/20	--	ND(1.2)	30	--	ND(10) UJ
		12/18/20	1810000	*ND(10)*	*ND(50)*	--	ND(20)
	MKTF-28	10/22/19	--	ND(0.5)	--	--	13
		02/25/20	--	0.092 J	**120**	--	7 J
		09/20/20	--	ND(0.25)	**110**	--	ND(10)
		12/18/20	568000	ND(1)	**125**	--	ND(20)
	MKTF-29	10/22/19	--	*ND(2.5)*	--	--	6.9
		02/25/20	--	*ND(2.5)*	13	--	ND(10)
		09/20/20	--	ND(0.25)	16	--	ND(10) UJ
		12/15/20	814000	ND(1)	18.5	--	ND(20)
	MKTF-30	10/23/19	--	0.064	--	--	12
		02/27/20	--	0.097 J	29 J-	--	ND(10)
		09/20/20	--	ND(0.25)	**34**	--	7.8J/ND(10)U*
		12/15/20	711000	ND(1)	**32.2**	--	ND(20)
	MKTF-31	10/22/19	--	0.064	--	--	11
		02/25/20	--	ND(0.5)	**43**	--	ND(10)
		09/19/20	--	ND(0.25) UJ	**37**	--	ND(10)
		12/18/20	354000	ND(1)	**42.1**	--	ND(20)
	[a]NMED GW Cleanup Levels		NA	2	30	NA	NA
	[b]40 CFR 141.62		NA	2	NA	NA	NA
	[c]NMED Tap Water		NA	143	NA	63.1	5,960
	[d]USEPA RSL Tap Water HQ 1.0		NA	2	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	Nickel, Total (µg/L)	Aluminum, Total (µg/L)	Antimony, Total (µg/L)	Arsenic, Total (µg/L)	Barium, Total (µg/L)	Beryllium, Total (µg/L)	Boron, Total (µg/L)
Marketing Tank Farm Area	MKTF-32	10/23/19	5.5	11000	ND(1)	**3.4**	190	0.35	1200
		02/27/20	ND(10)	860	ND(1)	**2.4 J+**	56	ND(2)	1000
		09/21/20	ND(10)	ND(20)	ND(1)	**2.6**	43	ND(2)	1200
		12/15/20	ND(6)	ND(200)	ND(2)	**2.78**	43.2	ND(3)	1130
	MKTF-33	10/24/19	5.8	7600	ND(1)	**1.1**	210	ND(2)	540
		02/28/20	ND(10)	2400	ND(1)	0.75 J	120	ND(2)	510
		3Q2020 - 4Q2020				NS - SPH Present			
	MKTF-34	10/29/19	ND(10)	1400	ND(1)	*ND(5)*	170	ND(2)	530
		02/05/20	ND(10)	1400 J	0.93 J-	*ND(5)*	180 J-	0.3 J	250
		02/28/20	ND(10)	1600	ND(1)	**0.86 J**	200	0.51 J	190
		09/16/20	ND(50)	19000	ND(1)	**6.8**	520	*ND(10)*	500
		4Q2020				NS - SPH Present			
	MKTF-35	10/29/19	8.7	11000	ND(1)	**2.2**	**2700**	0.54	360
		02/06/20	ND(10)	660 J	1.7 J-	**1.3**	**2100 J-**	ND(2)	380 J
		09/16/20	19 J	**22000 J**	ND(1)	**3.8 J**	**4300 J**	*ND(10)*	350
		4Q2020				NS - SPH Present			
	MKTF-36	4Q2019 - 1Q2020				NS - SPH Present			
		09/18/20	ND(10) UJ	1700	ND(1)	**18**	**7500**	ND(2)	370
		4Q2020				NS - SPH Present			
	MKTF-37	4Q2019 - 1Q2020				NS - SPH Present			
		09/17/20	9.5 J-	7100	ND(1)	**5.9**	2000	ND(2)	550
		4Q2020				NS - SPH Present			
	MKTF-38	4Q2019				NS - SPH Present			
		03/05/20	8.6 J	11000	ND(1)	*ND(5)*	240	0.79 J	470
		09/19/20	5.9 J	10000	ND(1)	**1.6**	180	0.93 J	470
		4Q2020				NS - SPH Present			
	MKTF-39	11/05/19	18	**20000**	ND(5)	**2.1**	**52000**	1.5	570
		02/05/20	18	18000 J	*ND(20) UJ*	*ND(20)*	**55000 J-**	1.6 J	460
		09/19/20	11	4800	ND(5)	*ND(5)*	**38000**	1.3 J	580
		12/16/20	15.4	13500	ND(2)	**1.92**	**30400**	ND(3)	467
	MKTF-40	10/22/19	11	3100	ND(5)	*ND(5)*	110	ND(2)	2200
		02/28/20	18	11000	ND(5)	**3 J**	290	1 J	1800
		09/19/20	14	14000	ND(5)	**1.5 J**	250	1.4 J	2300
		12/17/20	12.5	3650 J+	ND(2)	*ND(1)*	116	ND(3)	2140
	MKTF-41	10/23/19	ND(10)	4300	ND(1)	**2.5**	110	ND(2)	860
		02/27/20	ND(10)	94	ND(1)	**2.2 J+**	63	ND(2)	760
		09/21/20	ND(10)	15J/ND(20)U*	ND(1)	**2**	60	ND(2)	770
		12/15/20	ND(6)	1430	ND(2)	**1.95**	77.3	ND(3)	765
	MKTF-42	10/23/19	ND(10)	320	ND(1)	*ND(5)*	62	ND(2)	760
		02/27/20	ND(10)	140	ND(1)	**2.3 J+**	52	ND(2)	650
		09/21/20	ND(10)	45 JB	ND(1)	**1.9**	52	ND(2)	710
		12/16/20	ND(6) UJ	270	ND(2)	**2.15**	53.6	ND(3)	722
	[a]NMED GW Cleanup Levels		NA	NA	6	10	2,000	4	NA
	[b]40 CFR 141.62		NA	NA	6	10	2,000	4	NA
	[c]NMED Tap Water		372	19,900	7.26	0.855	3,280	12.4	3,950
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	6	10	2,000	4	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	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)	Magnesium, Total (µg/L)
Marketing Tank Farm Area	MKTF-32	10/23/19	ND(2)	--	3	*ND(6)*	4.6	5500	4.2	--
		02/27/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	440	0.54	--
		09/21/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	ND(50)	0.1J/ND(0.5)U*	--
		12/15/20	**ND(5)**	21700 JB	*ND(10)*	*ND(10)*	ND(20)	ND(200)	1.68	4290 JB
	MKTF-33	10/24/19	ND(2)	--	2.1	*ND(6)*	ND(6)	4500	3.1	--
		02/28/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	930	1.6	--
		3Q2020 - 4Q2020	NS - SPH Present							
	MKTF-34	10/29/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	1300	1	--
		02/05/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	920 J	0.9 J	--
		02/28/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	1100 J	1.1	--
		09/16/20	**ND(10)**	--	*ND(30)*	*ND(30)*	ND(30)	**21000**	**18**	--
		4Q2020	NS - SPH Present							
	MKTF-35	10/29/19	ND(2)	--	1.7	*ND(6)*	ND(6)	8300	6.2	--
		02/06/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	2100 J	0.43J/ND(0.5)U*	--
		09/16/20	**ND(10)**	--	*ND(30)*	*ND(30)*	ND(30)	13000 J	15 J	--
		4Q2020	NS - SPH Present							
	MKTF-36	4Q2019 - 1Q2020	NS - SPH Present							
		09/18/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	12000	4.9	--
		4Q2020	NS - SPH Present							
	MKTF-37	4Q2019 - 1Q2020	NS - SPH Present							
		09/17/20	ND(2)	--	**7.3**	3.5 J	12	**24000**	**23**	--
		4Q2020	NS - SPH Present							
	MKTF-38	4Q2019	NS - SPH Present							
		03/05/20	ND(2)	--	4.9 J	*ND(6)*	4.8 J	3800	3.9	--
		09/19/20	ND(2)	--	*ND(6)*	2.8 J	ND(6)	4400	4.4	--
		4Q2020	NS - SPH Present							
	MKTF-39	11/05/19	ND(2)	--	*ND(6)*	*ND(6)*	13	**32000**	13	--
		02/05/20	ND(2)	--	*ND(6)*	*ND(6)*	12	**33000 J**	12 J	--
		09/19/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	**29000**	2.5 J	--
		12/16/20	**ND(5)**	601000	*ND(10)*	*ND(10)*	ND(20)	**28500**	11.4	162000
	MKTF-40	10/22/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	2300	2.3	--
		02/28/20	ND(2)	--	3.2 J	*ND(6)*	ND(6)	7700	12	--
		09/19/20	ND(2)	--	3.5 J	*ND(6)*	ND(6)	7200	7.5	--
		12/17/20	**ND(5)**	242000	*ND(10)*	*ND(10)*	ND(20)	1980	1.35 J	45600
	MKTF-41	10/23/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	2200	1.8	--
		02/27/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	39	ND(0.5)	--
		09/21/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	20J/ND(50)U*	ND(0.5)	--
		12/15/20	**ND(5)**	14400 JB	*ND(10)*	*ND(10)*	ND(20)	764	ND(1)	1870 JB
	MKTF-42	10/23/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	190	ND(2.5)	--
		02/27/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	69	0.16 J	--
		09/21/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	31J/ND(50)U*	0.13J/ND(0.5)U*	--
		12/16/20	**ND(5)**	18100 JB	*ND(10)*	*ND(10)*	ND(20)	ND(200)	ND(1)	2630 JB
	[a]NMED GW Cleanup Levels		5	NA	50	NA	NA	NA	15	NA
	[b]40 CFR 141.62		5	NA	100	NA	NA	NA	NA	NA
	[c]NMED Tap Water		6.24	NA	5.7	5.98	790	13,800	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		5	NA	100	NA	1,300	NA	15	NA

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

Well Group	Location ID	Date Sampled	Manganese, Total (µg/L)	Mercury, Total (µg/L)	Molybdenum, Total (µg/L)	Potassium, Total (µg/L)	Selenium, Total (µg/L)	Silver, Total (µg/L)
Marketing Tank Farm Area	MKTF-32	10/23/19	160	0.19	ND(8)	--	ND(5)	ND(5)
		02/27/20	100	ND(0.2)	ND(8)	--	0.91 J	ND(5)
		09/21/20	65 JB	ND(0.2)	ND(8)	--	ND(1)	ND(5)
		12/15/20	63.7	ND(0.2)	*ND(100)*	ND(1000)	ND(5)	ND(5)
	MKTF-33	10/24/19	480	0.13	ND(8)	--	0.55	ND(5)
		02/28/20	340	ND(0.2)	ND(8)	--	ND(1)	ND(5)
		3Q2020 - 4Q2020			NS - SPH Present			
	MKTF-34	10/29/19	33	0.15	ND(8)	--	4.4	2.5
		02/05/20	30	ND(0.2)	ND(8)	--	ND(5)	3.4 J
		02/28/20	37 J	ND(0.2)	ND(8)	--	1.3	4 J
		09/16/20	410	1.3 JB	ND(40)	--	8.2	ND(25)
		4Q2020			NS - SPH Present			
	MKTF-35	10/29/19	**3500**	ND(0.2)	ND(8)	--	ND(5)	2.7
		02/06/20	2000 J	ND(0.2)	ND(8)	--	ND(1)	1.5 J
		09/16/20	**5000**	0.2 JB	ND(40)	--	3 J	ND(25)
		4Q2020			NS - SPH Present			
	MKTF-36	4Q2019 - 1Q2020			NS - SPH Present			
		09/18/20	1800	ND(0.2)	ND(8)	--	0.76 J	ND(5)
		4Q2020			NS - SPH Present			
	MKTF-37	4Q2019 - 1Q2020			NS - SPH Present			
		09/17/20	1600	ND(0.2)	11	--	2.1	ND(5)
		4Q2020			NS - SPH Present			
	MKTF-38	4Q2019			NS - SPH Present			
		03/05/20	1400	ND(0.2)	ND(8)	--	6.1	3.4 J
		09/19/20	1300	ND(0.2)	ND(8)	--	9.5	2.9 J
		4Q2020			NS - SPH Present			
	MKTF-39	11/05/19	**6700**	0.085	ND(8)	--	4.1	10
		02/05/20	**6700**	ND(0.2)	ND(8)	--	ND(20)	11
		09/19/20	**4500**	0.13 J+	ND(8)	--	ND(5)	5.8
		12/16/20	**5510**	ND(0.2)	*ND(100)*	18200	ND(10)	ND(5)
	MKTF-40	10/22/19	56	ND(0.2)	ND(8)	--	ND(5)	5.1
		02/28/20	380	ND(0.2)	ND(8)	--	3.2 J	3 J
		09/19/20	330	0.17 J+	ND(8)	--	ND(5)	3.4 J
		12/17/20	87	ND(0.2)	*ND(100)*	8840	ND(5)	ND(5)
	MKTF-41	10/23/19	67	0.16	11	--	33	ND(5)
		02/27/20	8	ND(0.2)	10	--	41	ND(5)
		09/21/20	6.4/ND(6.4)U*	ND(0.2)	13	--	36	ND(5)
		12/15/20	49.1	ND(0.2)	*ND(100)*	2070	36	ND(5)
	MKTF-42	10/23/19	110	0.2	39	--	ND(5)	ND(5)
		02/27/20	51	ND(0.2)	17	--	1.1	ND(5)
		09/21/20	42 JB	ND(0.2)	25	--	1.3	ND(5)
		12/16/20	41.3 J	ND(0.2)	*ND(100)*	1730 JB	ND(5)	ND(5)
	[a]NMED GW Cleanup Levels		NA	2	NA	NA	50	50
	[b]40 CFR 141.62		NA	2	NA	NA	50	NA
	[c]NMED Tap Water		2,020	NA	98.7	NA	98.7	81.2
	[d]USEPA RSL Tap Water HQ 1.0		NA	2	NA	NA	50	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	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-32	10/23/19	--	0.081	--	--	23
		02/27/20	--	ND(0.5)	**51 J-**	--	ND(10)
		09/21/20	--	ND(0.25)	**54**	--	ND(10)
		12/15/20	523000	ND(1)	**52.7**	--	ND(20)
	MKTF-33	10/24/19	--	ND(0.5)	--	--	12
		02/28/20	--	0.054 J	30	--	ND(10)
		3Q2020 - 4Q2020			NS - SPH Present		
	MKTF-34	10/29/19	--	ND(0.5)	--	--	14
		02/05/20	--	ND(0.5)	18 J	--	10
		02/28/20	--	0.056 J	21	--	12
		09/16/20	--	0.41	27	--	150
		4Q2020			NS - SPH Present		
	MKTF-35	10/29/19	--	ND(0.5)	--	--	14
		02/06/20	--	ND(0.5)	0.72 J	--	6 J
		09/16/20	--	ND(0.25)	4.1	--	37J/ND(50)U*
		4Q2020			NS - SPH Present		
	MKTF-36	4Q2019 - 1Q2020			NS - SPH Present		
		09/18/20	--	ND(0.25)	0.4 J	--	16 J
		4Q2020			NS - SPH Present		
	MKTF-37	4Q2019 - 1Q2020			NS - SPH Present		
		09/17/20	--	ND(0.25)	8.9	--	66
		4Q2020			NS - SPH Present		
	MKTF-38	4Q2019			NS - SPH Present		
		03/05/20	--	ND(0.5)	22	--	14
		09/19/20	--	ND(0.25) UJ	24	--	34
		4Q2020			NS - SPH Present		
	MKTF-39	11/05/19	--	*ND(2.5)*	4.3	--	25
		02/05/20	--	*ND(2.5)*	6.6 J	--	22
		09/19/20	--	ND(1.2) UJ	4	--	10 J
		12/16/20	2740000	ND(1)	ND(5)	--	21.5
	MKTF-40	10/22/19	--	*ND(2.5)*	--	--	9.8
		02/28/20	--	*ND(2.5)*	**45**	--	21
		09/19/20	--	ND(1.2) UJ	**38**	--	17 J
		12/17/20	1880000	ND(1)	ND(5) UJ	--	ND(20)
	MKTF-41	10/23/19	--	0.053	--	--	9.2
		02/27/20	--	ND(0.5)	12 J-	--	ND(10)
		09/21/20	--	ND(0.25)	12	--	ND(10) UJ
		12/15/20	575000	ND(1)	13.3	--	ND(20)
	MKTF-42	10/23/19	--	*ND(2.5)*	--	--	ND(10)
		02/27/20	--	ND(0.5)	14 J-	--	ND(10)
		09/21/20	--	ND(0.25)	19	--	ND(10)
		12/16/20	609000	ND(1)	ND(5) R	--	ND(20) UJ
	[a]NMED GW Cleanup Levels		NA	2	30	NA	NA
	[b]40 CFR 141.62		NA	2	NA	NA	NA
	[c]NMED Tap Water		NA	143	NA	63.1	5,960
	[d]USEPA RSL Tap Water HQ 1.0		NA	2	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	Nickel, Total (µg/L)	Aluminum, Total (µg/L)	Antimony, Total (µg/L)	Arsenic, Total (µg/L)	Barium, Total (µg/L)	Beryllium, Total (µg/L)	Boron, Total (µg/L)
Marketing Tank Farm Area	MKTF-43	10/24/19	4.1	4500	ND(5)	**2.3**	140	ND(2)	1100
		02/27/20	ND(10)	2900	ND(5)	*ND(5)*	97	1 J	640
		09/21/20	4.6 J+	420	*ND(10)*	*ND(20)*	98	1.2 J	1300
		12/15/20	6.79	6530	ND(2)	**2**	147	ND(3)	1280
	MKTF-44	10/24/19	ND(10)	4600	ND(1)	**5.9**	190	ND(2)	1900
		03/05/20	6.2 J	12000	ND(1)	**9.1**	290	1.7 J	1900
		09/21/20	5.7 J+	18000	ND(1)	**11**	270	1.8 J	1800
		12/23/20	ND(6)	3180 J	ND(2)	**9.85**	82.9	ND(3)	1760
	MKTF-45	4Q2019 - 4Q2020				NS - SPH Present			
	MKTF-46	4Q2019				NS - SPH Present			
		03/06/20	ND(10) UJ	4300	ND(1)	*ND(5)*	110	ND(2)	170 J-
		09/17/20	13 J-	**22000**	ND(1)	**3.9**	590	2 J	220
		12/16/20	ND(6)	203	ND(2)	*ND(1)*	45.5	ND(3)	181
	MKTF-47	03/06/20	ND(10) UJ	3200	ND(1)	*ND(5)*	100	ND(2)	250 J-
		3Q2020 - 4Q2020				NS - SPH Present			
	MKTF-48	2Q2020 - 4Q2020				NS - SPH Present			
	MKTF-49	03/05/20	20	**24000**	ND(1)	**2.5**	**5700**	2.1	720
		09/20/20	5.9 J-	5800	ND(1)	**1.2**	**6100**	ND(2)	650
		12/23/20	30.8	68100 J	ND(2)	**2.02**	**7560**	ND(3)	582
	MKTF-50	03/05/20	4.7 J	6900	ND(1)	**7.9**	**2500**	0.55 J	970
		3Q2020				NS - SPH Present			
		12/16/20	10.2	6330	ND(2)	**2.09 J**	**4130**	ND(3)	887
Wastewater Treatment Area	KA-3	10/21/19	28	960	ND(1)	**8**	1800	ND(2)	810
		03/04/20	24	1000	ND(1)	**6.4**	2000	0.36 J	630
		09/22/20	21 J+	1000	ND(1)	**3.1**	**3000**	ND(2)	670
		12/17/20	20.5	248	ND(2)	*ND(1)*	137	ND(3)	1460
	LDU - East	11/19/19	**650**	420	ND(1)	**1.1**	62	0.34	38
		03/10/20	**390**	650	ND(1)	*ND(5)*	59	ND(2)	220
		3Q2020				NS - H2S Present			
		12/17/20	**4130**	8750 J+	ND(2)	**2.98**	17.4	ND(3)	ND(100)
	LDU - West	11/19/19	45	180	ND(5)	*ND(20)*	62	0.82	460
		03/10/20	**700**	**24000**	ND(5)	**1.6 J**	45	2.1	140
		3Q2020				NS - H2S Present			
		12/17/20	119	1620 J+	ND(2)	*ND(1)*	167	ND(3)	ND(100)
	NAPIS-1	4Q2019 - 3Q2020				NS - SPH Present			
		12/07/20							
	NAPIS-2	10/21/19	11	1900	ND(1)	**4.2**	2000	ND(2)	810
		03/04/20	11	2100	ND(1)	**3.2**	**2400**	0.31 J	570
		09/22/20	10 J+	660 J+	ND(1)	**2 J**	1800	ND(2)	610
		12/17/20	11.9	3090	ND(2)	**3.53**	**2820**	ND(3)	529
	NAPIS-3	10/21/19	16	2900	1	**2**	140	0.3	2200
		03/04/20	18	28	ND(1)	**1.2**	110	0.31 J	1700
		09/22/20	20 J+	190	ND(1)	0.63 J	100	ND(2)	1300
		12/17/20	22.6 J	364	ND(2)	**4.22**	**2230**	ND(3)	676
	[a]NMED GW Cleanup Levels		NA	NA	6	10	2,000	4	NA
	[b]40 CFR 141.62		NA	NA	6	10	2,000	4	NA
	[c]NMED Tap Water		372	19,900	7.26	0.855	3,280	12.4	3,950
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	6	10	2,000	4	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	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)	Magnesium, Total (µg/L)
Marketing Tank Farm Area	MKTF-43	10/24/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	3000	2.8	--
		02/27/20	ND(2)	--	*ND(6)*	*ND(6)*	5 J	1700	1.7 J	--
		09/21/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	300 JB	0.38J/ND(5)U*	--
		12/15/20	**ND(5)**	1220000	*ND(10)*	*ND(10)*	ND(20)	5330	3.02 J	175000
	MKTF-44	10/24/19	ND(2)	--	**6.9**	*ND(6)*	ND(6)	4000	3.8	--
		03/05/20	ND(2)	--	**18**	3.7 J	11	**14000**	**15**	--
		09/21/20	ND(2)	--	**23**	5.3 J	8.7	**17000 J+**	**19**	--
		12/23/20	**ND(5)**	16600	*ND(10)*	*ND(10)*	ND(20)	2800 J	1.93	1000
	MKTF-45	4Q2019 - 4Q2020				NS - SPH Present				
	MKTF-46	4Q2019				NS - SPH Present				
		03/06/20	ND(2)	--	3.8 J-	*ND(6) UJ*	ND(6)	1900	1.6	--
		09/17/20	1.7 J	--	**37**	**7.6**	12	**17000**	**15**	--
		12/16/20	**ND(5)**	240000	*ND(10)*	*ND(10)*	ND(20)	ND(200)	ND(1)	47400
	MKTF-47	03/06/20	ND(2)	--	**11 J-**	*ND(6) UJ*	ND(6)	1600	0.73	--
		3Q2020 - 4Q2020				NS - SPH Present				
	MKTF-48	2Q2020 - 4Q2020				NS - SPH Present				
	MKTF-49	03/05/20	ND(2)	--	**6.8**	*ND(6)*	9.6	**18000**	**31**	--
		09/20/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	**16000**	2.4	--
		12/23/20	**ND(5)**	351000	**33.4**	**14.7**	25	**48000 J**	13.5	84500
	MKTF-50	03/05/20	ND(2)	--	2 J	*ND(6)*	ND(6)	5300	3 J	--
		3Q2020				NS - SPH Present				
		12/16/20	**ND(5)**	117000	*ND(10)*	*ND(10)*	ND(20)	6790	1.34	30900
Wastewater Treatment Area	KA-3	10/21/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	1100	0.56	--
		03/04/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	1200	0.72	--
		09/22/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	1300 J+	0.87 J-	--
		12/17/20	**ND(5)**	24500	*ND(10)*	*ND(10)*	ND(20)	371	ND(1)	4340
	LDU - East	11/19/19	ND(2)	--	**480**	3.5	14	3100	0.51	--
		03/10/20	ND(2)	--	**210**	*ND(6)*	ND(6)	530	0.086 J	--
		3Q2020				NS - H2S Present				
		12/17/20	**ND(5)**	--	**2360**	**32.4**	ND(20)	**26500**	ND(1)	--
	LDU - West	11/19/19	ND(2)	--	**150**	*ND(6)*	ND(6)	**51000**	ND(2.5)	--
		03/10/20	ND(2)	--	**1900**	**12**	ND(6)	**530000**	ND(2.5)	--
		3Q2020				NS - H2S Present				
		12/17/20	**ND(5)**	--	**205**	*ND(10)*	ND(20)	1640	ND(1)	--
	NAPIS-1	4Q2019 - 3Q2020				NS - SPH Present				
		12/07/20								
	NAPIS-2	10/21/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	2800	1.1	--
		03/04/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	2300	1.4	--
		09/22/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	2000 J+	0.37J/ND(0.5)U*	--
		12/17/20	**ND(5)**	60600	*ND(10)*	*ND(10)*	ND(20)	2430	1.62	12200
	NAPIS-3	10/21/19	ND(2)	--	4.1	*ND(6)*	8	1300	1.6	--
		03/04/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	37	0.29 J	--
		09/22/20	ND(2)	--	*ND(6)*	*ND(6)*	4.8 J	320 J+	0.43 J-	--
		12/17/20	**ND(5)**	108000	*ND(10)*	*ND(10)*	ND(20)	2050	ND(1)	19100
	[a]NMED GW Cleanup Levels		5	NA	50	NA	NA	NA	15	NA
	[b]40 CFR 141.62		5	NA	100	NA	NA	NA	NA	NA
	[c]NMED Tap Water		6.24	NA	5.7	5.98	790	13,800	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		5	NA	100	NA	1,300	NA	15	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	Manganese, Total (µg/L)	Mercury, Total (µg/L)	Molybdenum, Total (µg/L)	Potassium, Total (µg/L)	Selenium, Total (µg/L)	Silver, Total (µg/L)
Marketing Tank Farm Area	MKTF-43	10/24/19	1100	0.15	ND(8)	--	2.5	14
		02/27/20	470	0.12 J	ND(8)	--	ND(5)	16
		09/21/20	1400	ND(0.2)	ND(8)	--	ND(20)	20 JB
		12/15/20	1850	ND(0.2)	*ND(100)*	10400 J	ND(5)	ND(5)
	MKTF-44	10/24/19	110	0.15	ND(8)	--	11	ND(5)
		03/05/20	320	ND(0.2)	ND(8)	--	16	ND(5)
		09/21/20	320	ND(0.2)	ND(8)	--	14	ND(5)
		12/23/20	60	ND(0.2)	*ND(100)*	3110	12.1	ND(5)
	MKTF-45	4Q2019 - 4Q2020			NS - SPH Present			
	MKTF-46	4Q2019			NS - SPH Present			
		03/06/20	340	ND(0.2) UJ	ND(8)	--	ND(5)	5.6
		09/17/20	**3400**	0.2 J+	ND(8)	--	2.8	5.4
		12/16/20	406	ND(0.2)	*ND(100)*	2890 JB	ND(5)	ND(5)
	MKTF-47	03/06/20	75	ND(0.2) UJ	ND(8)	--	5.1	2.4 J
		3Q2020 - 4Q2020			NS - SPH Present			
	MKTF-48	2Q2020 - 4Q2020			NS - SPH Present			
	MKTF-49	03/05/20	**6800**	ND(0.2)	ND(8)	--	2.8	4.7 J
		09/20/20	**6100**	ND(0.2)	ND(8)	--	ND(1)	2.7 J
		12/23/20	**7890**	ND(0.2)	*ND(100)*	10900	ND(5)	ND(5)
	MKTF-50	03/05/20	1500	ND(0.2)	ND(8)	--	ND(1)	ND(5)
		3Q2020			NS - SPH Present			
		12/16/20	**2090**	ND(0.2)	*ND(100)*	4760 JB	ND(5)	ND(5)
Wastewater Treatment Area	KA-3	10/21/19	1600	0.043	ND(8)	--	ND(5)	1.6
		03/04/20	1700	ND(0.2) UJ	ND(8)	--	ND(1)	3 J
		09/22/20	1400	ND(0.2) UJ	ND(8)	--	ND(1)	1.6J/ND(5)U*
		12/17/20	302	ND(0.2)	*ND(100)*	2700	ND(5)	ND(5)
	LDU - East	11/19/19	340	0.15	ND(8)	--	ND(1)	ND(5)
		03/10/20	500	ND(0.2)	ND(8)	--	ND(5) R	2.2 J
		3Q2020			NS - H2S Present			
		12/17/20	**3180**	ND(0.2)	*ND(100)*	--	ND(5)	ND(5)
	LDU - West	11/19/19	**19000**	ND(0.2)	ND(8)	--	ND(20)	5.9
		03/10/20	**41000**	ND(0.2)	ND(8)	--	ND(5) UJ	ND(5)
		3Q2020			NS - H2S Present			
		12/17/20	851	ND(0.2)	*ND(100)*	--	ND(5)	ND(5)
	NAPIS-1	4Q2019 - 3Q2020			NS - SPH Present			
		12/07/20						
	NAPIS-2	10/21/19	920	0.055	ND(8)	--	0.57	ND(5)
		03/04/20	690	ND(0.2) UJ	ND(8)	--	ND(1)	1.4 J
		09/22/20	730	ND(0.2) UJ	ND(8)	--	ND(1)	ND(5)
		12/17/20	736	ND(0.2)	*ND(100)*	1090	ND(5)	ND(5)
	NAPIS-3	10/21/19	120	0.073	ND(8)	--	6	ND(5)
		03/04/20	220	ND(0.2) UJ	ND(8)	--	2.8	ND(5)
		09/22/20	250	ND(0.2) UJ	ND(8)	--	ND(5)	ND(5)
		12/17/20	1610	ND(0.2)	*ND(100)*	ND(1000)	ND(5)	ND(5)
	[a]NMED GW Cleanup Levels		NA	2	NA	NA	50	50
	[b]40 CFR 141.62		NA	2	NA	NA	50	NA
	[c]NMED Tap Water		2,020	NA	98.7	NA	98.7	81.2
	[d]USEPA RSL Tap Water HQ 1.0		NA	2	NA	NA	50	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	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-43	10/24/19	--	*ND(2.5)*	--	--	8.8
		02/27/20	--	*ND(2.5)*	**63 J-**	--	ND(10)
		09/21/20	--	*ND(2.5)*	**110**	--	ND(10)
		12/15/20	3000000	ND(1)	**117**	--	ND(20)
	MKTF-44	10/24/19	--	0.095	--	--	17
		03/05/20	--	0.29 J	**160**	--	52
		09/21/20	--	0.36	**150**	--	61 JB
		12/23/20	545000	ND(1)	**166**	--	ND(20)
	MKTF-45	4Q2019 - 4Q2020			NS - SPH Present		
	MKTF-46	4Q2019			NS - SPH Present		
		03/06/20	--	ND(0.5)	8	--	ND(10) UJ
		09/17/20	--	ND(0.25)	9.7	--	48
		12/16/20	215000	ND(1)	ND(5) UJ	--	ND(20)
	MKTF-47	03/06/20	--	ND(0.5)	12	--	ND(10) UJ
		3Q2020 - 4Q2020			NS - SPH Present		
	MKTF-48	2Q2020 - 4Q2020			NS - SPH Present		
	MKTF-49	03/05/20	--	0.09 J	5.9	--	18
		09/20/20	--	ND(0.25)	2.1 J	--	ND(10)
		12/23/20	803000	ND(1)	ND(5)	--	45.6
	MKTF-50	03/05/20	--	ND(0.5)	0.68	--	11
		3Q2020			NS - SPH Present		
		12/16/20	460000	ND(1)	ND(5)	--	ND(20)
Wastewater Treatment Area	KA-3	10/21/19	--	ND(0.5)	--	--	ND(10)
		03/04/20	--	ND(0.5)	3.7	--	ND(10)
		09/22/20	--	ND(0.25) UJ	1.1	--	ND(10) UJ
		12/17/20	455000	ND(1)	21	--	ND(20)
	LDU - East	11/19/19	--	ND(0.5)	ND(0.5)	--	71
		03/10/20	--	ND(0.5)	0.1 J	--	17
		3Q2020			NS - H2S Present		
		12/17/20	--	ND(1)	ND(5)	--	64.8
	LDU - West	11/19/19	--	*ND(2.5)*	0.82	--	29
		03/10/20	--	*ND(2.5)*	ND(2.5)	--	77
		3Q2020			NS - H2S Present		
		12/17/20	--	ND(1)	ND(5)	--	ND(20)
	NAPIS-1	4Q2019 - 3Q2020			NS - SPH Present		
		12/07/20					
	NAPIS-2	10/21/19	--	ND(0.5)	--	--	8.4
		03/04/20	--	ND(0.5)	0.28 J	--	7.1 J
		09/22/20	--	ND(0.25)	0.07 J	--	ND(10) UJ
		12/17/20	237000	ND(1)	ND(5)	--	ND(20)
	NAPIS-3	10/21/19	--	ND(0.5)	--	--	36
		03/04/20	--	ND(0.5)	22	--	ND(10)
		09/22/20	--	ND(0.25) UJ	20	--	8 J
		12/17/20	339000	ND(1)	ND(5)	--	ND(20) UJ
	[a]NMED GW Cleanup Levels		NA	2	30	NA	NA
	[b]40 CFR 141.62		NA	2	NA	NA	NA
	[c]NMED Tap Water		NA	143	NA	63.1	5,960
	[d]USEPA RSL Tap Water HQ 1.0		NA	2	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	Nickel, Total (µg/L)	Aluminum, Total (µg/L)	Antimony, Total (µg/L)	Arsenic, Total (µg/L)	Barium, Total (µg/L)	Beryllium, Total (µg/L)	Boron, Total (µg/L)
Wastewater Treatment Area	OAPIS-1	10/21/19	190	11000	ND(5)	**11**	1500	0.68	1700
		03/04/20	180	440	1.1	**6.2**	1300	0.35 J	1300
		09/22/20	170 J+	3900	0.89 J	**8.4**	970	ND(2)	1500
		12/17/20	216	497	ND(2)	**6.82**	1010	ND(3)	1690
	STP1-NW	10/22/19	ND(10)	2800	ND(5)	**3.3**	130	ND(2)	2100
		03/04/20	ND(10)	800	ND(1)	**2.7**	110	0.46 J	2200
		3Q2020				NS - H2S Present			
		12/23/20	ND(6)	623 J	ND(2)	**2.11**	134	ND(3)	2180
	STP1-SW	4Q2019 - 4Q2020				NS - H2S Present			
	Oil Sump LDU	4Q2019 - 4Q2020				NS - H2S Present			
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020				NS - SPH Present			
	GWM-2	4Q2019				NS - Dry			
		1Q2020				NS - SPH Present			
		3Q2020 - 4Q2020				NS - Dry			
	GWM-3	4Q2019				NS - Dry			
		1Q2020				NS - SPH Present			
		3Q2020 - 4Q2020				NS - Dry			
	OW-59	10/15/19	29	**22000**	*ND(10)*	**9.6**	320	0.79	2500
		03/03/20	23	12000	ND(5) UJ	**6.7**	140	0.71 J	2500
		09/19/20	66	**99000**	*ND(10)*	**23**	980	**5.2**	2400
		12/23/20	31.5	5810 J	ND(2)	**4.7**	81.9 J	ND(3)	2140
	OW-60	10/15/19	53	**30000**	ND(5)	**5.2**	430	0.96	2500
		03/03/20	170	**21000**	0.43 J-	**3.6**	240	0.72 J	2400
		09/21/20	68 J+	**20000**	ND(1)	**2.2**	210	ND(2)	2400
		12/11/20	90.2	9480	ND(2)	**1.57**	102	ND(3)	2310
Land Treatment Unit	MW-1	09/20/17	--	--	--	**0.97**	15	--	--
		09/13/18	--	--	ND(1)	**1.3**	13	ND(2)	--
		12/06/18	ND(10)	--	ND(1)	**1.1**	ND(20)	ND(3)	--
		08/12/19	ND(10)	260	ND(1)	**1.3**	14	ND(2)	700
		09/22/20	ND(10)	81 J+	ND(1)	**1.4**	13	ND(2)	760
	MW-2	09/20/17	--	--	--	0.73	22	--	--
		09/13/18	--	--	ND(1)	**0.99**	17	ND(2)	--
		12/06/18	ND(10)	--	ND(1)	**1.1**	ND(20)	ND(3)	--
		08/13/19	ND(10)	15	ND(1)	**1.2**	18	ND(2)	750
		09/18/20	ND(10) UJ	69 JB	ND(1)	**1**	21	ND(2)	770
	MW-4	09/21/17	--	--	--	0.84	20	--	--
		09/13/18	--	--	ND(1)	0.76	20	ND(2)	--
		12/06/18	ND(10)	--	ND(1)	*ND(1)*	21	ND(3)	--
		08/13/19	ND(10)	11	ND(1)	0.71	21	ND(2)	380
		09/18/20	ND(10) UJ	300	ND(1)	0.78 J	29	ND(2)	380
	MW-5	09/11/17	--	--	--	**1**	20	--	--
		09/17/18	--	--	ND(1)	**1.1**	21	ND(2)	--
		12/06/18	ND(10)	--	ND(1)	**1**	ND(20)	ND(3)	--
		08/14/19	ND(10)	9.8	ND(1)	**0.99**	30	ND(2)	760
		09/21/20	ND(10)	140	ND(1)	**0.93 J**	49	ND(2)	760
	[a]NMED GW Cleanup Levels		NA	NA	6	10	2,000	4	NA
	[b]40 CFR 141.62		NA	NA	6	10	2,000	4	NA
	[c]NMED Tap Water		372	19,900	7.26	0.855	3,280	12.4	3,950
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	6	10	2,000	4	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	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)	Magnesium, Total (µg/L)
Wastewater Treatment Area	OAPIS-1	10/21/19	ND(2)	--	**7.8**	**8.2**	19	8800	10	--
		03/04/20	ND(2)	--	*ND(6)*	*ND(6)*	4.3 J	1500	4.3	--
		09/22/20	ND(2)	--	*ND(6)*	2.9 J	6	4300 J+	8.8 J-	--
		12/17/20	**ND(5)**	134000	*ND(10)*	*ND(10)*	ND(20)	2500	7.75	26500
	STP1-NW	10/22/19	ND(2)	--	1.9	*ND(6)*	4.7	2100	1.9	--
		03/04/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	540	0.49 J	--
		3Q2020	NS - H2S Present							
		12/23/20	**ND(5)**	113000	*ND(10)*	*ND(10)*	ND(20)	471 J	ND(1)	16500
	STP1-SW	4Q2019 - 4Q2020	NS - H2S Present							
	Oil Sump LDU	4Q2019 - 4Q2020	NS - H2S Present							
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020	NS - SPH Present							
	GWM-2	4Q2019	NS - Dry							
		1Q2020	NS - SPH Present							
		3Q2020 - 4Q2020	NS - Dry							
	GWM-3	4Q2019	NS - Dry							
		1Q2020	NS - SPH Present							
		3Q2020 - 4Q2020	NS - Dry							
	OW-59	10/15/19	ND(2)	--	**10**	*ND(6)*	6.5	8600	5.4	--
		03/03/20	ND(2)	--	5.4 J	*ND(6)*	6.2	5100	3.5	--
		09/19/20	ND(2)	--	**47**	**15**	28	**48000 J-**	**30**	--
		12/23/20	**ND(5)**	187000	*ND(10)*	*ND(10)*	ND(20)	3280 J	1.37	54000
	OW-60	10/15/19	ND(2)	--	**78**	5.9	13	11000	5.9	--
		03/03/20	ND(2)	--	**540**	**7.8**	24	11000	4.9	--
		09/21/20	ND(2)	--	**59**	5.8 J	8.5	7900 J+	3.8	--
		12/11/20	**ND(5)**	97600	**37.9**	*ND(10)*	ND(20)	4180	1.5	16600
Land Treatment Unit	MW-1	09/20/17	ND(2)	--	**7.4**	--	1.8	260	1.6	--
		09/13/18	ND(2)	--	1.8	--	ND(6)	160	1.3	--
		12/06/18	ND(2)	--	*ND(6)*	*ND(6)*	--	--	ND(1)	--
		08/12/19	ND(2)	--	1.7	*ND(6)*	ND(6)	120	0.37	--
		09/22/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	37 J+	0.42J/ND(0.5)U*	--
	MW-2	09/20/17	ND(2)	--	*ND(6)*	--	ND(6)	97	0.55	--
		09/13/18	ND(2)	--	*ND(6)*	--	ND(6)	10	ND(0.5)	--
		12/06/18	ND(2)	--	*ND(6)*	*ND(6)*	--	--	ND(1)	--
		08/13/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	69	ND(0.5)	--
		09/18/20	ND(2)	--	*ND(6) UJ*	*ND(6)*	ND(6)	36 J	0.39J/ND(0.5)U*	--
	MW-4	09/21/17	ND(2)	--	*ND(6)*	--	1.9	21	0.17	--
		09/13/18	ND(2)	--	*ND(6)*	--	ND(6)	ND(20)	ND(0.5)	--
		12/06/18	ND(2)	--	*ND(6)*	*ND(6)*	--	--	ND(1)	--
		08/13/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	ND(20)	ND(0.5)	--
		09/18/20	ND(2)	--	3.7 J	*ND(6)*	ND(6)	130	2.7	--
	MW-5	09/11/17	ND(2)	--	*ND(6)*	--	ND(6)	ND(20)	ND(0.5)	--
		09/17/18	ND(2)	--	*ND(6)*	--	ND(6)	ND(20)	ND(0.5)	--
		12/06/18	ND(2)	--	*ND(6)*	*ND(6)*	--	--	ND(1)	--
		08/14/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	ND(20)	ND(0.5)	--
		09/21/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	53 J+	0.11 J	--
	[a]NMED GW Cleanup Levels		5	NA	50	NA	NA	NA	15	NA
	[b]40 CFR 141.62		5	NA	100	NA	NA	NA	NA	NA
	[c]NMED Tap Water		6.24	NA	5.7	5.98	790	13,800	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		5	NA	100	NA	1,300	NA	15	NA

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

Well Group	Location ID	Date Sampled	Manganese, Total (µg/L)	Mercury, Total (µg/L)	Molybdenum, Total (µg/L)	Potassium, Total (µg/L)	Selenium, Total (µg/L)	Silver, Total (µg/L)
Wastewater Treatment Area	OAPIS-1	10/21/19	1800	ND(0.2)	ND(8)	--	ND(5)	ND(5)
		03/04/20	1100	ND(0.2) UJ	16	--	1.6	3.6 J
		09/22/20	1200	ND(0.2) UJ	ND(8)	--	1.1	2.1J/ND(5)U*
		12/17/20	1230	ND(0.2)	*ND(100)*	5530	ND(5)	ND(5)
	STP1-NW	10/22/19	43	ND(0.2)	14	--	5.7	ND(5)
		03/04/20	14	ND(0.2) UJ	17	--	4.8	2.4 J
		3Q2020			NS - H2S Present			
		12/23/20	10.1	ND(0.2)	*ND(100)*	7370	ND(5)	ND(5)
	STP1-SW	4Q2019 - 4Q2020			NS - H2S Present			
	Oil Sump LDU	4Q2019 - 4Q2020			NS - H2S Present			
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020			NS - SPH Present			
	GWM-2	4Q2019			NS - Dry			
		1Q2020			NS - SPH Present			
		3Q2020 - 4Q2020			NS - Dry			
	GWM-3	4Q2019			NS - Dry			
		1Q2020			NS - SPH Present			
		3Q2020 - 4Q2020			NS - Dry			
	OW-59	10/15/19	370	ND(0.2)	17	--	ND(10)	3
		03/03/20	290	ND(0.2)	16	--	ND(5)	4.7 J
		09/19/20	1500	ND(0.2)	ND(8) UJ	--	8.6 J	1.5 J
		12/23/20	212 J	ND(0.2)	*ND(100)*	5770	ND(5)	ND(5)
	OW-60	10/15/19	470	ND(0.2)	ND(8)	--	18	ND(5)
		03/03/20	280	ND(0.2)	16	--	16	1.5 J
		09/21/20	290	ND(0.2)	ND(8)	--	14	ND(5)
		12/11/20	144	ND(0.2)	*ND(100)*	5030	15.2	ND(5)
Land Treatment Unit	MW-1	09/20/17	14	ND(0.2)	--	--	ND(1)	ND(0.5)
		09/13/18	10	0.17	--	--	ND(1)	ND(5)
		12/06/18	--	ND(0.2)	--	--	ND(1)	ND(5)
		08/12/19	4.6	0.054	9.5	--	ND(1)	ND(5)
		09/22/20	4.7	ND(0.2) UJ	ND(8)	--	ND(1)	ND(5)
	MW-2	09/20/17	18	0.04	--	--	ND(1)	ND(0.5)
		09/13/18	2.6	0.14	--	--	ND(1)	ND(5)
		12/06/18	--	ND(0.2)	--	--	ND(1)	ND(5)
		08/13/19	2.7	0.046	8.5	--	ND(1)	ND(5)
		09/18/20	21	ND(0.2) UJ	8.6	--	ND(1)	ND(5)
	MW-4	09/21/17	6.9	ND(0.2)	--	--	ND(1)	ND(0.5)
		09/13/18	5.9	0.11	--	--	ND(1)	ND(5)
		12/06/18	--	ND(0.2)	--	--	ND(1)	ND(5)
		08/13/19	5.6	ND(0.2)	8.1	--	ND(1)	ND(5)
		09/18/20	120	ND(0.2)	ND(8)	--	ND(1) UJ	ND(5)
	MW-5	09/11/17	4.3	ND(0.2)	--	--	ND(1)	ND(5)
		09/17/18	4.5	0.096	--	--	ND(1)	ND(5)
		12/06/18	--	ND(0.2)	--	--	ND(1)	ND(5)
		08/14/19	5.9	ND(0.2)	8	--	ND(1)	ND(5)
		09/21/20	13	ND(0.2)	ND(8)	--	ND(1)	ND(5)
	[a]NMED GW Cleanup Levels		NA	2	NA	NA	50	50
	[b]40 CFR 141.62		NA	2	NA	NA	50	NA
	[c]NMED Tap Water		2,020	NA	98.7	NA	98.7	81.2
	[d]USEPA RSL Tap Water HQ 1.0		NA	2	NA	NA	50	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

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

Well Group	Location ID	Date Sampled	Sodium, Total (µg/L)	Thallium, Total (µg/L)	Uranium, Total (µg/L)	Vanadium, Total (µg/L)	Zinc, Total (µg/L)
Wastewater Treatment Area	OAPIS-1	10/21/19	--	*ND(2.5)*	--	--	37
		03/04/20	--	ND(0.5)	**70**	--	18
		09/22/20	--	ND(0.25) UJ	**49 J**	--	23 J
		12/17/20	1130000	ND(1)	**45**	--	20.5
	STP1-NW	10/22/19	--	*ND(2.5)*	--	--	39
		03/04/20	--	ND(0.5)	30	--	12
		3Q2020			NS - H2S Present		
		12/23/20	1610000	ND(1)	28.4	--	ND(20)
	STP1-SW	4Q2019 - 4Q2020			NS - H2S Present		
	Oil Sump LDU	4Q2019 - 4Q2020			NS - H2S Present		
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020			NS - SPH Present		
	GWM-2	4Q2019			NS - Dry		
		1Q2020			NS - SPH Present		
		3Q2020 - 4Q2020			NS - Dry		
	GWM-3	4Q2019			NS - Dry		
		1Q2020			NS - SPH Present		
		3Q2020 - 4Q2020			NS - Dry		
	OW-59	10/15/19	--	*ND(2.5)*	--	--	18
		03/03/20	--	*ND(2.5)*	**130**	--	9.3 J
		09/19/20	--	*ND(2.5) UJ*	**140**	--	130
		12/23/20	2740000	ND(1)	**138**	--	ND(20)
	OW-60	10/15/19	--	*ND(2.5)*	--	--	58
		03/03/20	--	0.077 J	**53**	--	82
		09/21/20	--	ND(0.25)	**54**	--	21 J
		12/11/20	1400000	ND(1)	**53.2**	--	ND(20)
Land Treatment Unit	MW-1	09/20/17	--	--	--	--	ND(10)
		09/13/18	--	--	9.4	2.3	ND(10)
		12/06/18	--	--	--	ND(50)	ND(20)
		08/12/19	--	ND(0.5)	10	--	ND(10)
		09/22/20	--	ND(0.25)	9.4	--	ND(10) UJ
	MW-2	09/20/17	--	--	--	--	ND(10)
		09/13/18	--	--	8	ND(50)	ND(10)
		12/06/18	--	--	--	ND(50)	ND(20)
		08/13/19	--	ND(0.5)	8.6	--	7.5
		09/18/20	--	ND(0.25) UJ	9.4	--	ND(10)
	MW-4	09/21/17	--	--	--	--	ND(10)
		09/13/18	--	--	14	0.91	ND(10)
		12/06/18	--	--	--	ND(50)	ND(20)
		08/13/19	--	ND(0.5)	13	--	ND(10)
		09/18/20	--	ND(0.25)	16	--	ND(10)
	MW-5	09/11/17	--	--	9.9	--	ND(10)
		09/17/18	--	--	8.2	ND(50)	ND(10)
		12/06/18	--	--	--	ND(50)	ND(20)
		08/14/19	--	ND(0.5)	9	--	ND(10)
		09/21/20	--	ND(0.25)	9	--	ND(10) UJ
	[a]NMED GW Cleanup Levels		NA	2	30	NA	NA
	[b]40 CFR 141.62		NA	2	NA	NA	NA
	[c]NMED Tap Water		NA	143	NA	63.1	5,960
	[d]USEPA RSL Tap Water HQ 1.0		NA	2	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	Nickel, Total (µg/L)	Aluminum, Total (µg/L)	Antimony, Total (µg/L)	Arsenic, Total (µg/L)	Barium, Total (µg/L)	Beryllium, Total (µg/L)	Boron, Total (µg/L)
Land Treatment Unit	SMW-2	06/28/17	--	--	--	--	--	--	--
		09/11/17	--	--	--	**9.2**	82	--	--
		09/18/18	--	--	--	**5.6**	30	--	--
		08/22/19	47	850	ND(5)	**2.6**	23	0.39	1300
		09/19/20	41 J	700	ND(5)	**2.3 J**	21	ND(2)	1300
	SMW-4	06/28/17	--	--	--	--	--	--	--
		09/11/17	--	--	--	**3.2**	65	--	--
		09/12/18	--	--	ND(1)	**3.1**	27	ND(2)	--
		12/06/18	ND(10)	--	ND(1)	**2.9**	32	ND(3)	--
		08/13/19	4.1	900	ND(1)	**3.4**	23	ND(2)	1600
		09/20/20	19 J+	3700	ND(1)	**2.6**	49	ND(2)	1700
Evaporation Ponds	EP-2	09/06/18	--	--	--	**11**	160	--	--
		04/30/19	10	170	ND(5)	**6.8**	250	0.41	500
		11/21/19	16	180	ND(5)	**9.4**	140	ND(2)	330
		09/16/20	56	360	0.75 J	**6.4**	220	ND(2)	450
		09/17/20	ND(10) UJ	ND(20)	ND(1)	*ND(1)*	ND(3)	ND(2)	ND(40)
		12/21/20	16.6	ND(200)	ND(2)	**5.37**	33.3 J	ND(3)	ND(100) UJ
	EP-3	09/06/18	--	--	--	**13**	150	--	--
		04/30/19	14	160	ND(5)	**8.7**	240	0.46	450
		11/20/19	57	250	ND(5)	**9.2**	150	ND(2)	470
		09/16/20	61	5700 J+	0.87 J	**9.6**	320	ND(2)	480
		12/21/20	124	1550	ND(2)	**10.1**	146	ND(3)	678
	EP-4	09/06/18	--	--	--	**14**	160	--	--
		04/30/19	11	160	ND(5)	**8.4**	240	0.51	450
		09/17/20	50	ND(100)	*ND(10)*	**36**	270	*ND(10)*	1200
		12/21/20	91.5	ND(200)	ND(2)	**21.8**	196	ND(3)	1030
	EP-5	09/06/18	--	--	--	**21**	160	--	--
		04/30/19	14	710	ND(5)	**14**	200	0.66	480
		09/17/20	51	140	*ND(10)*	**24**	240	*ND(10)*	970
		12/21/20	60.5	386	ND(2)	**23.7**	178	ND(3)	975
	EP-6	09/07/18	--	--	--	**23**	160	--	--
		04/29/19	13	500	ND(5)	**14**	190	0.57	480
		09/17/20	61	ND(100)	*ND(10)*	**24**	240	*ND(10)*	900
		12/21/20	52.4	367	2.31	**30**	246	ND(3)	970
	EP-7	09/07/18	--	--	--	**160**	190	--	--
		04/29/19	120	210	*ND(20)*	**110**	180	2.8	3700
		11/20/19	350	360	*ND(100)*	**310**	170	*ND(40)*	**11000**
		09/17/20	340	3400	*ND(50)*	**370**	140	*ND(10)*	**12000**
		12/21/20	**414**	ND(1000)	*ND(20)*	**464**	217	*ND(15)*	**11100**
	EP-8	09/07/18	--	--	--	**96**	200	--	--
		04/29/19	110	200	*ND(20)*	**120**	190	3.1	3700
		11/20/19	230	220	*ND(100)*	**260**	210	*ND(40)*	**8600**
		09/17/20	260	490	*ND(100)*	**320**	240	*ND(10)*	**9200**
		12/22/20	**633**	ND(1000) UJ	*ND(20)*	**552**	ND(50)	*ND(15)*	**18100**
	EP-9	09/07/18	--	--	--	**82**	180	--	--
		04/29/19	68	300	*ND(20)*	**82**	170	2.9	2200
		11/20/19	280	140	*ND(100)*	**100**	160	*ND(20)*	2900
		09/17/20	130	110	*ND(50)*	**240**	260	*ND(10)*	**7100**
		12/21/20	236	ND(1000)	*ND(20)*	**380**	304	*ND(15)*	**8680**
	[a]NMED GW Cleanup Levels		NA	NA	6	10	2,000	4	NA
	[b]40 CFR 141.62		NA	NA	6	10	2,000	4	NA
	[c]NMED Tap Water		372	19,900	7.26	0.855	3,280	12.4	3,950
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	6	10	2,000	4	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	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)	Magnesium, Total (µg/L)
Land Treatment Unit	SMW-2	06/28/17	--	--	--	--	--	--	--	--
		09/11/17	ND(2)	--	**390**	--	4.2	4000	2.7	--
		09/18/18	ND(2)	--	**26**	--	ND(6)	760	ND(2.5)	--
		08/22/19	ND(2)	--	**47**	*ND(6)*	ND(6)	520	0.59	--
		09/19/20	ND(2)	--	**20 J**	*ND(6)*	ND(6)	390	0.27J/ND(2.5)U*	--
	SMW-4	06/28/17	--	--	--	--	--	--	--	--
		09/11/17	ND(2)	--	**60**	--	3.5	3100	3.2	--
		09/12/18	ND(2)	--	**17**	--	ND(6)	710	0.88	--
		12/06/18	ND(2)	--	**11**	**19**	--	--	1	--
		08/13/19	ND(2)	--	3.4	**9.2**	ND(6)	410	0.37	--
		09/20/20	ND(2)	--	**15**	**8.7**	ND(6)	1700 J+	1.9	--
Evaporation Ponds	EP-2	09/06/18	ND(2)	--	2.4	--	10	160	ND(2.5)	--
		04/30/19	ND(2)	--	1.7	*ND(6)*	5.7	530	ND(2.5)	--
		11/21/19	ND(2)	--	**8.3**	*ND(6)*	10	2900	ND(2.5)	--
		09/16/20	ND(2)	--	3.4 J	*ND(6)*	ND(6)	2300 J+	0.29 J	--
		09/17/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	ND(50)	0.043 J	--
		12/21/20	**ND(5)**	--	*ND(10)*	*ND(10)*	ND(20)	366 J	ND(1)	--
	EP-3	09/06/18	ND(2)	--	2.2	--	7.5	180	ND(2.5)	--
		04/30/19	ND(2)	--	1.9	*ND(6)*	5.6	530	0.75	--
		11/20/19	ND(2)	--	**14**	*ND(6)*	7.5	9600	ND(2.5)	--
		09/16/20	ND(2)	--	**7.4**	*ND(6)*	8.8 J+	14000 J+	2.7	--
		12/21/20	**ND(5)**	--	*ND(10)*	*ND(10)*	ND(20)	3050	ND(1)	--
	EP-4	09/06/18	ND(2)	--	*ND(6)*	--	6.7	170	ND(2.5)	--
		04/30/19	ND(2)	--	1.9	*ND(6)*	5.6	530	ND(2.5)	--
		09/17/20	**ND(10)**	--	*ND(30)*	*ND(30)*	ND(30)	120J/ND(250)U*	ND(5)	--
		12/21/20	**ND(5)**	--	*ND(10)*	*ND(10)*	ND(20)	797	ND(1)	--
	EP-5	09/06/18	ND(2)	--	4.4	--	4.5	94	ND(2.5)	--
		04/30/19	ND(2)	--	1.8	*ND(6)*	4.4	380	0.49	--
		09/17/20	**ND(10)**	--	*ND(30)*	*ND(30)*	ND(30)	270 JB	ND(5)	--
		12/21/20	**ND(5)**	--	*ND(10)*	*ND(10)*	ND(20)	370	1.14	--
	EP-6	09/07/18	ND(2)	--	3.7	--	ND(6)	81	ND(2.5)	--
		04/29/19	ND(2)	--	2.5	*ND(6)*	ND(6)	320	0.47	--
		09/17/20	**ND(10)**	--	*ND(30)*	*ND(30)*	ND(30)	86J/ND(250)U*	ND(5)	--
		12/21/20	**ND(5)**	--	*ND(10)*	*ND(10)*	ND(20)	262	ND(1)	--
	EP-7	09/07/18	ND(2)	--	**17**	--	ND(30)	160	*ND(25)*	--
		04/29/19	**ND(10)**	--	*ND(30)*	*ND(30)*	ND(30)	94	ND(10)	--
		11/20/19	**ND(40)**	--	*ND(120)*	*ND(120)*	89	280	*ND(50)*	--
		09/17/20	**ND(10)**	--	*16 J*	*ND(30)*	ND(30)	1100	*ND(25)*	--
		12/21/20	**ND(25)**	--	**55.8**	*ND(50)*	ND(100)	ND(1000)	ND(10)	--
	EP-8	09/07/18	ND(2)	--	**9**	--	29	62	ND(10)	--
		04/29/19	**ND(10)**	--	*ND(30)*	*ND(30)*	22	130	ND(10)	--
		11/20/19	**ND(40)**	--	*ND(120)*	*ND(120)*	110	230	*ND(50)*	--
		09/17/20	**ND(10)**	--	**17 J**	*ND(30)*	ND(30)	260 JB	*ND(50)*	--
		12/22/20	**ND(25)**	--	**75.8**	*ND(50)*	ND(100)	ND(1000)	ND(10)	--
	EP-9	09/07/18	ND(2)	--	**6.9**	--	ND(6)	70	*ND(25)*	--
		04/29/19	**ND(10)**	--	*ND(30)*	*ND(30)*	22	180	ND(10)	--
		11/20/19	**ND(20)**	--	*ND(60)*	*ND(60)*	73	170	*ND(50)*	--
		09/17/20	**ND(10)**	--	*ND(30)*	*ND(30)*	ND(30)	120J/ND(250)U*	*ND(25)*	--
		12/21/20	**ND(25)**	--	**50.6**	*ND(50)*	ND(100)	ND(1000)	ND(10)	--
	[a]NMED GW Cleanup Levels		5	NA	50	NA	NA	NA	15	NA
	[b]40 CFR 141.62		5	NA	100	NA	NA	NA	NA	NA
	[c]NMED Tap Water		6.24	NA	5.7	5.98	790	13,800	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		5	NA	100	NA	1,300	NA	15	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	Manganese, Total (µg/L)	Mercury, Total (µg/L)	Molybdenum, Total (µg/L)	Potassium, Total (µg/L)	Selenium, Total (µg/L)	Silver, Total (µg/L)
Land Treatment Unit	SMW-2	06/28/17	--	--	--	--	--	--
		09/11/17	490	ND(0.2)	--	--	24	ND(5)
		09/18/18	340	0.06	--	--	ND(5)	7.3
		08/22/19	370	0.094	ND(8)	--	ND(5)	5.1
		09/19/20	340	ND(0.2) UJ	ND(8)	--	ND(5)	5.3
	SMW-4	06/28/17	--	--	--	--	--	--
		09/11/17	68	ND(0.2)	--	--	0.97	ND(5)
		09/12/18	22	ND(0.2)	--	--	ND(1)	ND(5)
		12/06/18	--	ND(0.2)	--	--	ND(1)	ND(5)
		08/13/19	8.6	0.054	10	--	ND(1)	ND(5)
		09/20/20	42	ND(0.2)	9.1	--	ND(1)	ND(5)
Evaporation Ponds	EP-2	09/06/18	220	0.13	--	--	5.7	6.5
		04/30/19	290	0.088	8.4	--	8.2	4.7
		11/21/19	150	ND(0.2)	71	--	3.2	2.6
		09/16/20	120	ND(0.2)	ND(8)	--	2.7	2.8 J
		09/17/20	ND(2)	ND(0.2)	ND(8)	--	ND(1)	ND(5)
		12/21/20	65.7 J	ND(0.2)	*ND(100)*	--	ND(5) UJ	ND(5)
	EP-3	09/06/18	230	0.16	--	--	6	6.9
		04/30/19	360	0.11	7.5	--	8.7	5.8
		11/20/19	340	0.22	63	--	5.5	ND(5)
		09/16/20	250	ND(0.2)	ND(8)	--	5.3	2.9 J
		12/21/20	281	ND(0.2)	*ND(100)*	--	ND(5) UJ	ND(5)
	EP-4	09/06/18	210	0.12	--	--	6	7.3
		04/30/19	360	0.098	ND(8)	--	6.8	5.6
		09/17/20	1300	ND(0.2)	ND(40)	--	ND(10)	ND(25)
		12/21/20	739	ND(0.2)	*ND(100)*	--	ND(5) UJ	ND(5)
	EP-5	09/06/18	160	0.05	--	--	ND(5)	7.4
		04/30/19	480	0.068	ND(8)	--	5.3	6.9
		09/17/20	940	ND(0.2)	ND(40)	--	ND(10)	ND(25)
		12/21/20	959	ND(0.2)	*ND(100)*	--	ND(5) UJ	ND(5)
	EP-6	09/07/18	150	0.061	--	--	ND(5)	8.7
		04/29/19	470	0.064	ND(8)	--	4	7.1
		09/17/20	770	ND(0.2)	ND(40)	--	ND(10)	ND(25)
		12/21/20	975	ND(0.2)	*ND(100)*	--	ND(5) UJ	ND(5)
	EP-7	09/07/18	800	ND(0.2)	--	--	*ND(50)*	16
		04/29/19	590	ND(0.2)	ND(40)	--	12	17
		11/20/19	1900	ND(0.2)	*ND(160)*	--	*ND(500)*	*ND(100)*
		09/17/20	**4300**	ND(0.2)	ND(40)	--	*ND(50)*	19 J
		12/21/20	**3520**	ND(0.2)	*ND(500)*	--	*ND(50) UJ*	ND(25)
	EP-8	09/07/18	1000	ND(0.2)	--	--	ND(20)	15
		04/29/19	610	ND(0.2)	ND(40)	--	10	17
		11/20/19	**5100**	ND(0.2)	*ND(160)*	--	*ND(500)*	39
		09/17/20	**3700**	ND(0.2)	ND(40)	--	*ND(50)*	9.9 J
		12/22/20	**5240**	ND(0.2)	*ND(500)*	--	*ND(50)*	ND(25)
	EP-9	09/07/18	1300	ND(0.2)	--	--	*ND(50)*	14
		04/29/19	380	ND(0.2)	ND(40)	--	11	16
		11/20/19	1900	ND(0.2)	ND(80)	--	*ND(200)*	31
		09/17/20	**3900**	ND(0.2)	ND(40)	--	*ND(50)*	19 J
		12/21/20	**4510**	ND(0.2)	*ND(500)*	--	60 J-	ND(25)
	[a]NMED GW Cleanup Levels		NA	2	NA	NA	50	50
	[b]40 CFR 141.62		NA	2	NA	NA	50	NA
	[c]NMED Tap Water		2,020	NA	98.7	NA	98.7	81.2
	[d]USEPA RSL Tap Water HQ 1.0		NA	2	NA	NA	50	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	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	06/28/17	--	--	--	--	--
		09/11/17	--	--	**120**	--	8
		09/18/18	--	--	**91**	--	6.5
		08/22/19	--	*ND(2.5)*	**92**	--	ND(10)
		09/19/20	--	ND(1.2) UJ	**85**	--	ND(10)
	SMW-4	06/28/17	--	--	--	--	--
		09/11/17	--	--	**33**	--	16
		09/12/18	--	--	30	49	5.8
		12/06/18	--	--	--	50	ND(20)
		08/13/19	--	ND(0.5)	30	--	5.8
		09/20/20	--	ND(0.25)	24	--	8.8 J
Evaporation Ponds	EP-2	09/06/18	--	--	1.5	--	6
		04/30/19	--	*ND(2.5)*	2.1	--	12
		11/21/19	--	*ND(2.5)*	1.6	--	37
		09/16/20	--	ND(0.25)	0.91	--	17
		09/17/20	--	ND(0.25)	ND(0.5)	--	ND(10) UJ
		12/21/20	--	ND(1)	ND(5)	--	ND(20)
	EP-3	09/06/18	--	--	1.3	--	12
		04/30/19	--	*ND(2.5)*	2	--	8.4
		11/20/19	--	*ND(2.5)*	2.9	--	39
		09/16/20	--	ND(0.25)	1.8	--	53
		12/21/20	--	ND(1)	ND(5)	--	ND(20)
	EP-4	09/06/18	--	--	1.1	--	ND(10)
		04/30/19	--	*ND(2.5)*	2.1	--	8.2
		09/17/20	--	*ND(2.5)*	1.7 J	--	ND(50)
		12/21/20	--	ND(1)	ND(5)	--	ND(20)
	EP-5	09/06/18	--	--	1.2	--	4.3
		04/30/19	--	*ND(2.5)*	2.3	--	ND(10)
		09/17/20	--	*ND(2.5)*	2.4 J	--	ND(50)
		12/21/20	--	ND(1)	ND(5)	--	ND(20)
	EP-6	09/07/18	--	--	1.2	--	ND(10)
		04/29/19	--	*ND(2.5)*	2.3	--	ND(10)
		09/17/20	--	*ND(2.5)*	2.8 J	--	ND(50)
		12/21/20	--	ND(1)	ND(5)	--	ND(20)
	EP-7	09/07/18	--	--	5.1	--	4.8
		04/29/19	--	*ND(10)*	4.8	--	ND(50)
		11/20/19	--	*ND(50)*	*ND(50)*	--	ND(200)
		09/17/20	--	*ND(12)*	9.6 J	--	ND(50)
		12/21/20	--	*ND(10)*	*ND(50)*	--	ND(100)
	EP-8	09/07/18	--	--	3.1	--	ND(10)
		04/29/19	--	*ND(10)*	4.6	--	ND(50)
		11/20/19	--	*ND(50)*	*ND(50)*	--	ND(200)
		09/17/20	--	*ND(25)*	9 J	--	ND(50)
		12/22/20	--	*ND(10)*	*ND(50)*	--	ND(100)
	EP-9	09/07/18	--	--	ND(25)	--	5.5
		04/29/19	--	*ND(10)*	5.5	--	ND(50)
		11/20/19	--	*ND(50)*	*ND(50)*	--	91
		09/17/20	--	*ND(12)*	7.8 J	--	ND(50)
		12/21/20	--	*ND(10)*	*ND(50)*	--	ND(100)
	[a]NMED GW Cleanup Levels		NA	2	30	NA	NA
	[b]40 CFR 141.62		NA	2	NA	NA	NA
	[c]NMED Tap Water		NA	143	NA	63.1	5,960
	[d]USEPA RSL Tap Water HQ 1.0		NA	2	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	Nickel, Total (µg/L)	Aluminum, Total (µg/L)	Antimony, Total (µg/L)	Arsenic, Total (µg/L)	Barium, Total (µg/L)	Beryllium, Total (µg/L)	Boron, Total (µg/L)
Evaporation Ponds	EP-11	09/07/18	--	--	--	**960**	27	--	--
		04/29/19	130	500	**9**	**120**	200	2.7	**4000**
		12/22/20	**674**	1170 J	*ND(20)*	**423 J**	ND(50)	*ND(15)*	**18600**
	EP-12A	09/07/18	--	--	--	**52**	190	--	--
		11/21/19	87	1200	ND(5)	**13**	130	ND(2)	710
		12/22/20	219	**34700 J**	*ND(10)*	**22.4**	347	ND(3)	1360
	EP-12B	09/07/18	--	--	--	**17**	160	--	--
		04/29/19	30	740	ND(5)	**21**	97	0.65	1100
		11/21/19	64	370	ND(5)	**9.8**	140	ND(2)	540
		09/18/20	39 J-	460	*ND(10)*	**22**	260	1.2 J	950
		12/22/20	126	409 J	*ND(10)*	**16**	195	ND(3)	905
	STP-1 to EP-2	08/31/18	--	--	--	**8.7**	180	--	--
		11/08/18	--	--	--	**15**	180	--	--
		02/07/19	--	--	*ND(10)*	**5.5**	280	ND(2)	--
		05/29/19	ND(50)	430	ND(5)	**8.2**	260	*ND(10)*	430
		10/09/19	26	270	ND(5)	**5.3**	150	ND(2)	240
		11/21/19	18	180	ND(5)	**9**	150	ND(2)	340
		09/16/20	**590**	1400	ND(5)	**3.6**	74	1.4 J	410
		12/21/20	8.81 J	901	*ND(20)*	*ND(10)*	87.6	ND(3)	238
Western Boundary	BW-1A	3Q2020				NS - Dry			
	BW-1B	3Q2020				NS - Dry			
	BW-1C	09/13/17	--	--	--	0.38	20	--	--
		09/12/18	--	--	ND(1)	*ND(1)*	37	ND(2)	--
		08/14/19	ND(10)	100	ND(1)	*ND(1)*	19	ND(2)	1700
		09/20/20	ND(10)	60 JB	ND(1)	*ND(1)*	17	ND(2)	1600
	BW-2A	09/13/17	--	--	--	**7.5**	160	--	--
		09/12/18	--	--	ND(1)	**7.8**	130	0.29	--
		08/14/19	ND(10)	270	ND(1)	**8.5**	150	ND(2)	850
		09/20/20	ND(10)	610	ND(1)	**9**	150	ND(2)	800
	BW-2B	09/13/17	--	--	--	**2.1**	87	--	--
		09/12/18	--	--	ND(1)	0.77	37	ND(2)	--
		08/14/19	ND(10)	4500	ND(1)	**0.98**	57	ND(2)	1900
		09/21/20	ND(10)	250	ND(1)	0.84 J	40	ND(2)	1800
	BW-2C	09/13/17	--	--	--	0.76	25	--	--
		09/18/18	--	--	--	*ND(5)*	50	--	--
		08/14/19	12	12000	ND(1)	**2.3**	86	0.32	1200
		09/22/20	46 J+	**94000 J+**	ND(1)	**5.1**	550	3.3	1300
	BW-3A	09/14/20							
	BW-3B	09/13/17	--	--	--	**5.2**	120	--	--
		09/12/18	--	--	ND(1)	**4.9**	110	ND(2)	--
		08/14/19	ND(10)	86	ND(1)	**6.1**	110	ND(2)	1100
		09/21/20	ND(10)	130	ND(1)	**5.7**	110	ND(2)	1100
	BW-3C	09/13/17	--	--	--	**1.6**	32	--	--
		09/18/18	--	--	--	**2.2**	240	--	--
		08/14/19	11	6600	ND(1)	**1.4**	80	ND(2)	1000
		09/22/20	12 J+	**31000 J+**	ND(1)	**1.2**	180	ND(2)	1100
	BW-4A	4Q2019 - 4Q2020				NS - Dry			
	[a]NMED GW Cleanup Levels		NA	NA	6	10	2,000	4	NA
	[b]40 CFR 141.62		NA	NA	6	10	2,000	4	NA
	[c]NMED Tap Water		372	19,900	7.26	0.855	3,280	12.4	3,950
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	6	10	2,000	4	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	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)	Magnesium, Total (µg/L)
Evaporation Ponds	EP-11	09/07/18	**ND(10)**	--	**64**	--	ND(30)	260	*ND(50)*	--
		04/29/19	**ND(10)**	--	*ND(30)*	*ND(30)*	20	190	1.1	--
		12/22/20	**ND(25)**	--	**95.9**	*ND(50)*	ND(100)	ND(1000)	ND(10)	--
	EP-12A	09/07/18	ND(2)	--	**18**	--	12	12000	5.4	--
		11/21/19	ND(2)	--	**11**	*ND(6)*	ND(6)	6300	0.61	--
		12/22/20	**ND(5)**	--	**41**	**17.1**	ND(20)	**28800**	**17.3**	--
	EP-12B	09/07/18	ND(2)	--	3.8	--	ND(6)	180	ND(5)	--
		04/29/19	ND(2)	--	2.8	*ND(6)*	4.1	490	0.38	--
		11/21/19	ND(2)	--	**13**	*ND(6)*	4.8	8000	ND(2.5)	--
		09/18/20	ND(2)	--	4.3 J	*ND(6)*	ND(6)	420	ND(5)	--
		12/22/20	**ND(5)**	--	*ND(10)*	*ND(10)*	ND(20)	956	ND(5)	--
	STP-1 to EP-2	08/31/18	ND(2)	--	2.5	--	12	360	0.3	--
		11/08/18	ND(2)	--	*ND(6)*	--	7.4	1100	1.2	--
		02/07/19	ND(2)	--	2.1	--	13	760	ND(5)	--
		05/29/19	**ND(10)**	--	*ND(30)*	*ND(30)*	ND(30)	1900	ND(2.5)	--
		10/09/19	ND(2)	--	5.3	4.8	ND(6)	7700	ND(2.5)	--
		11/21/19	ND(2)	--	**9.7**	*ND(6)*	11	3000	ND(2.5)	--
		09/16/20	ND(2)	--	**26**	**6.2**	9.9 JB	**34000 J+**	0.43 J	--
		12/21/20	**ND(5)**	--	*ND(10)*	*ND(10)*	36.3	1840	ND(10)	--
Western Boundary	BW-1A	3Q2020					NS - Dry			
	BW-1B	3Q2020					NS - Dry			
	BW-1C	09/13/17	ND(2)	--	4.5	--	2.7	130	ND(0.5)	--
		09/12/18	ND(2)	--	4.1	--	ND(6)	290	0.77	--
		08/14/19	ND(2)	--	2.6	*ND(6)*	ND(6)	54	ND(0.5)	--
		09/20/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	47 J-	ND(0.5)	--
	BW-2A	09/13/17	ND(2)	--	3.6	--	3.3	1200	0.68	--
		09/12/18	ND(2)	--	*ND(6)*	--	ND(6)	430	ND(0.5)	--
		08/14/19	ND(2)	8600	*ND(6)*	*ND(6)*	ND(6)	490	0.12	3200
		09/20/20	ND(2)	--	2.6 J	**8.8**	ND(6)	740 J-	0.29 J	--
	BW-2B	09/13/17	ND(2)	--	**7.8**	--	4.2	3200	2	--
		09/12/18	ND(2)	--	*ND(6)*	--	ND(6)	240	ND(0.5)	--
		08/14/19	ND(2)	--	2.7	*ND(6)*	ND(6)	1600	0.92	--
		09/21/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	280 J+	0.054 J	--
	BW-2C	09/13/17	ND(2)	--	**9**	--	3.5	410	0.5	--
		09/18/18	ND(2)	--	**6**	--	ND(6)	2000	2.4	--
		08/14/19	ND(2)	--	**18**	*ND(6)*	ND(6)	3900	4.4	--
		09/22/20	ND(2)	--	**50**	**17**	6.3	**44000 J+**	**20**	--
	BW-3A	09/14/20								
	BW-3B	09/13/17	ND(2)	--	1.8	--	2.7	1100	0.75	--
		09/12/18	ND(2)	--	2.4	--	ND(6)	870	0.35	--
		08/14/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	430	0.094	--
		09/21/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	450 J+	0.07 J	--
	BW-3C	09/13/17	ND(2)	--	**15**	--	4.5	620	0.4	--
		09/18/18	ND(2)	--	**27**	--	ND(6)	3900	3	--
		08/14/19	ND(2)	--	**16**	*ND(6)*	4.1	1700	1.4	--
		09/22/20	ND(2)	--	**16**	5.2 J	ND(6)	8200 J+	2.7	--
	BW-4A	4Q2019 - 4Q2020					NS - Dry			
	[a]NMED GW Cleanup Levels		5	NA	50	NA	NA	NA	15	NA
	[b]40 CFR 141.62		5	NA	100	NA	NA	NA	NA	NA
	[c]NMED Tap Water		6.24	NA	5.7	5.98	790	13,800	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		5	NA	100	NA	1,300	NA	15	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	Manganese, Total (µg/L)	Mercury, Total (µg/L)	Molybdenum, Total (µg/L)	Potassium, Total (µg/L)	Selenium, Total (µg/L)	Silver, Total (µg/L)
Evaporation Ponds	EP-11	09/07/18	**9000**	ND(0.2)	--	--	*ND(100)*	10
		04/29/19	630	ND(0.2)	ND(40)	--	17	19
		12/22/20	**9550**	ND(0.2)	*ND(500)*	--	*ND(500)*	ND(25)
	EP-12A	09/07/18	**3100**	ND(0.2)	--	--	22	16
		11/21/19	570	ND(0.2)	33	--	ND(10)	2.2
		12/22/20	**5430**	ND(0.2) UJ	*ND(100)*	--	ND(25)	ND(5)
	EP-12B	09/07/18	270	0.066	--	--	5.9	6.8
		04/29/19	110	ND(0.2)	11	--	7.8	4.4
		11/21/19	400	ND(0.2)	50	--	3.7	ND(5)
		09/18/20	1200	ND(0.2)	ND(8)	--	ND(10)	16 J
		12/22/20	1050	ND(0.2) UJ	*ND(100)*	--	ND(25)	ND(5)
	STP-1 to EP-2	08/31/18	400	0.095	--	--	8.4	2.2
		11/08/18	210	0.49	--	--	9.7	ND(5)
		02/07/19	230	0.14	--	--	9.5	5.1
		05/29/19	230	ND(0.2)	ND(40)	--	5.5	ND(25)
		10/09/19	240	0.16	23	--	2.8	ND(5)
		11/21/19	150	ND(0.2)	71	--	3	2
		09/16/20	760	0.17 J+	ND(8)	--	3.1	ND(5)
		12/21/20	283	ND(0.2)	*ND(100)*	--	*ND(50) UJ*	ND(5)
Western Boundary	BW-1A	3Q2020				NS - Dry		
	BW-1B	3Q2020				NS - Dry		
	BW-1C	09/13/17	15	ND(0.2)	--	--	ND(1)	ND(5)
		09/12/18	38	ND(0.2)	--	--	ND(1)	ND(5)
		08/14/19	10	ND(0.2)	12	--	ND(1)	ND(5)
		09/20/20	9.5	ND(0.2)	12	--	ND(1)	ND(5)
	BW-2A	09/13/17	170	ND(0.2)	--	--	1.9	ND(5)
		09/12/18	140	ND(0.2)	--	--	ND(1)	ND(5)
		08/14/19	150	ND(0.2)	8.3	300	ND(1)	ND(5)
		09/20/20	170	ND(0.2)	ND(8)	--	ND(1)	ND(5)
	BW-2B	09/13/17	220	ND(0.2)	--	--	2.9	ND(5)
		09/12/18	150	ND(0.2)	--	--	ND(1)	ND(5)
		08/14/19	180	ND(0.2)	20	--	ND(1)	ND(5)
		09/21/20	140	ND(0.2)	19	--	ND(1)	ND(5)
	BW-2C	09/13/17	39	ND(0.2)	--	--	0.92	ND(5)
		09/18/18	59	0.045	--	--	ND(5)	3.5
		08/14/19	96	ND(0.2)	8.8	--	0.77	ND(5)
		09/22/20	930	ND(0.2) UJ	ND(8)	--	3.4	ND(5)
	BW-3A	09/14/20						
	BW-3B	09/13/17	120	ND(0.2)	--	--	1.6	ND(5)
		09/12/18	120	ND(0.2)	--	--	ND(1)	ND(5)
		08/14/19	110	ND(0.2)	13	--	ND(1)	ND(5)
		09/21/20	100	ND(0.2)	11	--	ND(1)	ND(5)
	BW-3C	09/13/17	25	ND(0.2)	--	--	ND(5)	ND(5)
		09/18/18	160	0.045	--	--	ND(5)	12
		08/14/19	56	ND(0.2)	13	--	ND(1)	1.5
		09/22/20	140	ND(0.2) UJ	7.2 J	--	0.7 J	ND(5)
	BW-4A	4Q2019 - 4Q2020				NS - Dry		
	[a]NMED GW Cleanup Levels		NA	2	NA	NA	50	50
	[b]40 CFR 141.62		NA	2	NA	NA	50	NA
	[c]NMED Tap Water		2,020	NA	98.7	NA	98.7	81.2
	[d]USEPA RSL Tap Water HQ 1.0		NA	2	NA	NA	50	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	Sodium, Total (µg/L)	Thallium, Total (µg/L)	Uranium, Total (µg/L)	Vanadium, Total (µg/L)	Zinc, Total (µg/L)
Evaporation Ponds	EP-11	09/07/18	--	--	13	--	ND(50)
		04/29/19	--	*ND(10)*	4.5	--	ND(50)
		12/22/20	--	*ND(10)*	*ND(50)*	--	ND(100)
	EP-12A	09/07/18	--	--	17	--	21
		11/21/19	--	*ND(2.5)*	1.9	--	22
		12/22/20	--	*ND(5)*	ND(25)	--	77.8
	EP-12B	09/07/18	--	--	1.7	--	3.5
		04/29/19	--	*ND(2.5)*	1.8	--	ND(10)
		11/21/19	--	*ND(2.5)*	2.5	--	32
		09/18/20	--	*ND(2.5)*	1.8 J	--	ND(10)
		12/22/20	--	*ND(5)*	ND(25)	--	ND(20)
	STP-1 to EP-2	08/31/18	--	--	0.3	--	26
		11/08/18	--	--	5.6	--	51
		02/07/19	--	*ND(5)*	5.7	--	18
		05/29/19	--	*ND(2.5)*	0.65	--	ND(50)
		10/09/19	--	*ND(2.5)*	1.7	--	39
		11/21/19	--	*ND(2.5)*	1.7	--	39
		09/16/20	--	ND(0.25)	0.48 J	--	150
		12/21/20	--	*ND(10)*	*ND(50)*	--	64.3
Western Boundary	BW-1A	3Q2020			NS - Dry		
	BW-1B	3Q2020			NS - Dry		
	BW-1C	09/13/17	--	--	9.9	--	ND(10)
		09/12/18	--	--	8.1	1.2	ND(10)
		08/14/19	--	ND(0.5)	9.4	--	ND(10)
		09/20/20	--	ND(0.25) UJ	8.8	--	ND(10)
	BW-2A	09/13/17	--	--	ND(0.5)	--	ND(10)
		09/12/18	--	--	ND(0.5)	0.93	ND(10)
		08/14/19	370000	ND(0.5)	ND(0.5)	--	ND(10)
		09/20/20	--	ND(0.25) UJ	0.098 J	--	ND(10) UJ
	BW-2B	09/13/17	--	--	14	--	7
		09/12/18	--	--	10	3.1	ND(10)
		08/14/19	--	ND(0.5)	12	--	11
		09/21/20	--	ND(0.25)	11	--	ND(10)
	BW-2C	09/13/17	--	--	4.7	--	5.1
		09/18/18	--	--	5.5	--	15
		08/14/19	--	0.4	7.2	--	24
		09/22/20	--	0.37	9.1	--	76 J
	BW-3A	09/14/20					
	BW-3B	09/13/17	--	--	0.2	--	4
		09/12/18	--	--	0.16	2.6	ND(10)
		08/14/19	--	ND(0.5)	0.12	--	ND(10)
		09/21/20	--	ND(0.25)	0.1 J	--	ND(10)
	BW-3C	09/13/17	--	--	1.6	--	12
		09/18/18	--	--	1.7	--	17
		08/14/19	--	ND(0.5)	1.5	--	13
		09/22/20	--	ND(0.25)	1.4	--	25 J
	BW-4A	4Q2019 - 4Q2020			NS - Dry		
	[a]NMED GW Cleanup Levels		NA	2	30	NA	NA
	[b]40 CFR 141.62		NA	2	NA	NA	NA
	[c]NMED Tap Water		NA	143	NA	63.1	5,960
	[d]USEPA RSL Tap Water HQ 1.0		NA	2	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	Nickel, Total (µg/L)	Aluminum, Total (µg/L)	Antimony, Total (µg/L)	Arsenic, Total (µg/L)	Barium, Total (µg/L)	Beryllium, Total (µg/L)	Boron, Total (µg/L)
Western Boundary	BW-4B	03/10/20	13	13000	ND(1)	**9.8**	120	0.38 J	2200
		3Q2020				NS - SPH Present			
	BW-5A	4Q2019 - 4Q2020				NS - Dry			
	BW-5B	10/16/19	ND(10)	270	ND(1)	**2.1**	140	ND(2)	410
		03/05/20	ND(10)	460	ND(1)	*ND(5)*	210	ND(2)	380
		09/20/20	4.3 J	1300 J	ND(1)	**1**	210	ND(2)	340
		12/11/20	ND(6)	629	ND(2)	*ND(1)*	229	ND(3)	342
	BW-5C	10/16/19	ND(10)	2300	ND(5)	*ND(5)*	130	0.36	520
		03/05/20	8.9 J	13000 J	ND(1)	0.74 J	230 J	0.65 J	570
		09/19/20	23 J	14000 J	ND(1)	**1.1**	250 J	ND(2)	520
		12/09/20	13.4 J	10600	ND(2)	*ND(1)*	256	ND(3)	515
Deep	OW-01	10/16/19	ND(10)	120	ND(1)	*ND(5)*	36	1.6	300
		03/09/20	12	7300	ND(1)	**1.1**	59	ND(2)	350
		09/20/20	40	12000	ND(1)	**2.3**	160	1 J	350
		12/11/20	ND(6)	290	ND(2)	*ND(1)*	42.9	ND(3)	349
	OW-10	10/17/19	6.7	ND(20)	ND(5)	*ND(5)*	66	1.7	450
		03/04/20	ND(10)	ND(20)	ND(1)	*ND(5)*	61	0.52 J	540
		09/20/20	ND(10)	12 J	ND(1)	0.72 J	56	ND(2)	520
		12/11/20	ND(6)	ND(200)	ND(2)	*ND(1)*	53.5	ND(3)	527
	OW-11	09/18/17	--	--	--	**2.9**	7.7	--	--
		09/18/18	--	--	--	**2**	8	--	--
		08/20/19	ND(10)	4.5	ND(1)	**2**	7.3	ND(2)	1300
		09/20/20	ND(10)	13 J	ND(1)	**1.7**	7.8	ND(2)	1500
	OW-12	09/19/17	--	--	--	**1.9**	23	--	--
		09/19/18	--	--	--	**2**	38	--	--
		3Q2020				NS - Recovery Well in Place			
		09/17/20	ND(50)	230	ND(1)	**1.7**	26	*ND(10)*	400
	OW-13	10/14/19	ND(10)	11	ND(1)	**0.95**	19	ND(2)	320
		03/02/20	ND(10)	ND(20)	ND(1)	0.78 J	19	ND(2)	340
		09/17/20	ND(50)	51 J	ND(1)	0.77 J	22	*ND(10)*	310
		12/09/20	ND(6)	ND(200)	ND(2)	*ND(1)*	19.6	ND(3)	326
	PW-2	09/10/14	--	--	--	**3.1**	12	--	--
		09/18/17	--	--	--	**3.1**	13	--	--
		09/21/20	ND(10)	ND(20)	ND(1)	**3.4**	13	ND(2)	51
		12/28/20	ND(6)	ND(200)	ND(2)	**3.52**	15.4	ND(3)	ND(100)
	PW-3	3Q2020				NS			
		09/21/20	4 J+	ND(20)	ND(1)	**3.7**	9.5	ND(2)	130
		12/28/20	ND(6)	ND(200)	ND(2)	**2.84 J**	13.7	ND(3)	183
	PW-4	3Q2020				NS			
		09/21/20	ND(10)	ND(20)	ND(1)	**2.9**	13	ND(2)	53
		12/28/20	ND(6)	ND(200)	ND(2)	**1.71**	15.6	ND(3)	ND(100)
[a]NMED GW Cleanup Levels			NA	NA	6	10	2,000	4	NA
[b]40 CFR 141.62			NA	NA	6	10	2,000	4	NA
[c]NMED Tap Water			372	19,900	7.26	0.855	3,280	12.4	3,950
[d]USEPA RSL Tap Water HQ 1.0			NA	NA	6	10	2,000	4	NA

Notes:
-- = Not Measured
DUP = Duplicate
H2S = Hydrogen Sulfide
MTBE = methyl tert butyl ether
NA = Not Applicable
NS = Not sampled
Q = Quarter
SPH = Separate Phase Hydrocarbon
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the respective screening levels (noted by the superscript).
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
[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, March 2017
[d]USEPA RSL Tap Water HQ 1.0 - United States Environmental Protection Agency Regional Screening Levels, Hazardous Quotient 1.0, November 2019
J = Estimated concentration
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration
JB = Estimated concentration due to blank contamination
J- = Estimated concentration, possibly biased low
R = Rejected, Data not usable

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	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)	Magnesium, Total (µg/L)
Western Boundary	BW-4B	03/10/20	ND(2)	--	**19**	*ND(6)*	7.3	6900	1.7	--
		3Q2020	NS - SPH Present							
	BW-5A	4Q2019 - 4Q2020	NS - Dry							
	BW-5B	10/16/19	ND(2)	--	2.8	*ND(6)*	ND(6)	120	ND(0.5)	--
		03/05/20	ND(2)	--	2 J	*ND(6)*	ND(6)	140	0.096 J	--
		09/20/20	ND(2)	--	4.9 J	*ND(6)*	ND(6)	480 J-	0.18 J	--
		12/11/20	**ND(5)**	8170 JB	*ND(10)*	*ND(10)*	ND(20)	ND(2000)	ND(1)	964 JB
	BW-5C	10/16/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	990	0.38	--
		03/05/20	ND(2)	--	**6.7**	*ND(6)*	ND(6)	3800 J	2.7 J	--
		09/19/20	ND(2)	--	**30 J**	*ND(6)*	ND(6)	4400 J	3.2	--
		12/09/20	**ND(5)**	88900	**17.4**	*ND(10)*	ND(20)	4020	1.81	14600
Deep	OW-01	10/16/19	ND(2)	--	2.1	*ND(6)*	ND(6)	34	ND(0.5)	--
		03/09/20	ND(2)	--	**19**	*ND(6)*	ND(6)	3100	1.8	--
		09/20/20	ND(2)	--	**46**	3.2 J	ND(6)	8500 J-	10	--
		12/11/20	**ND(5)**	0/ND(2560	*ND(10)*	*ND(10)*	ND(20)	423	ND(1)	ND(500)
	OW-10	10/17/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	9.9	ND(2.5)	--
		03/04/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	22	ND(2.5)	--
		09/20/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	38 J+	0.11 J	--
		12/11/20	**ND(5)**	59500	*ND(10)*	*ND(10)*	ND(20)	ND(200)	ND(1)	7670
	OW-11	09/18/17	ND(2)	--	*ND(6)*	--	ND(6)	11	ND(0.5)	--
		09/18/18	ND(2)	--	*ND(6)*	--	ND(6)	12	ND(0.5)	--
		08/20/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	ND(20)	ND(0.5)	--
		09/20/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	ND(50)	ND(0.5)	--
	OW-12	09/19/17	ND(2)	--	4.1	--	1.9	110	0.32	--
		09/19/18	ND(2)	--	4.6	--	ND(6)	430	1	--
		3Q2020	NS - Recovery Well in Place							
		09/17/20	**ND(10)**	--	*ND(30)*	*ND(30)*	ND(30)	180 J	0.51	--
	OW-13	10/14/19	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	ND(20)	ND(0.5)	--
		03/02/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	12 J	ND(0.5)	--
		09/17/20	**ND(10)**	--	*ND(30)*	*ND(30)*	ND(30)	ND(250)	0.074 J	--
		12/09/20	**ND(5)**	--	*ND(10)*	*ND(10)*	ND(20)	ND(200)	ND(1)	--
	PW-2	09/10/14	ND(2)	--	*ND(6)*	--	ND(6)	42	ND(1)	--
		09/18/17	ND(2)	--	*ND(6)*	--	ND(6)	42	ND(0.5)	--
		09/21/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	27 J	ND(0.5)	--
		12/28/20	**ND(5)**	--	*ND(10)*	*ND(10)*	ND(20)	353	ND(1)	--
	PW-3	3Q2020	NS							
		09/21/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	170	0.31 J	--
		12/28/20	**ND(5)**	--	*ND(10)*	*ND(10)*	ND(20) UJ	213	ND(1) UJ	--
	PW-4	3Q2020	NS							
		09/21/20	ND(2)	--	*ND(6)*	*ND(6)*	ND(6)	80	ND(0.5)	--
		12/28/20	**ND(5)**	--	*ND(10)*	*ND(10)*	ND(20)	ND(200)	ND(1)	--
[a]NMED GW Cleanup Levels			5	NA	50	NA	NA	NA	15	NA
[b]40 CFR 141.62			5	NA	100	NA	NA	NA	NA	NA
[c]NMED Tap Water			6.24	NA	5.7	5.98	790	13,800	NA	NA
[d]USEPA RSL Tap Water HQ 1.0			5	NA	100	NA	1,300	NA	15	NA

Notes:
-- = Not Measured
DUP = Duplicate
H2S = Hydrogen Sulfide
MTBE = methyl tert butyl ether
NA = Not Applicable
NS = Not sampled
Q = Quarter
SPH = Separate Phase Hydrocarbon
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the respective screening levels (noted by the superscript).
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
[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, March 2017
[d]USEPA RSL Tap Water HQ 1.0 - United States Environmental Protection Agency Regional Screening Levels, Hazardous Quotient 1.0, November 2019
J = Estimated concentration
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration
JB = Estimated concentration due to blank contamination
J- = Estimated concentration, possibly biased low
R = Rejected, Data not usable

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	Manganese, Total (µg/L)	Mercury, Total (µg/L)	Molybdenum, Total (µg/L)	Potassium, Total (µg/L)	Selenium, Total (µg/L)	Silver, Total (µg/L)
Western Boundary	BW-4B	03/10/20	88	ND(0.2)	22	--	0.52 J-	ND(5)
		3Q2020	NS - SPH Present					
	BW-5A	4Q2019 - 4Q2020	NS - Dry					
	BW-5B	10/16/19	3.7	ND(0.2)	ND(8)	--	1.9	ND(5)
		03/05/20	19	ND(0.2)	ND(8)	--	ND(5)	ND(5)
		09/20/20	20	0.17 J+	ND(8)	--	0.9 J	ND(5)
		12/11/20	19.9	ND(0.2)	*ND(100)*	1620	ND(5)	ND(5)
	BW-5C	10/16/19	40	0.066	ND(8)	--	ND(5)	1.8
		03/05/20	110 J	0.18 J	ND(8)	--	1.1	2.2 J
		09/19/20	110 J	0.72 J	ND(8)	--	1.7	1.4 J
		12/09/20	94.7	0.474 J	*ND(100)*	4800	ND(5)	ND(5)
Deep	OW-01	10/16/19	0.78	ND(0.2)	ND(8)	--	2.5	ND(5)
		03/09/20	53	ND(0.2)	ND(8)	--	2.3 J-	ND(5)
		09/20/20	360	0.16 J+	ND(8)	--	3.5	ND(5)
		12/11/20	13.4	ND(0.2)	*ND(100)*	ND(1000)	ND(5)	ND(5)
	OW-10	10/17/19	150	ND(0.2)	ND(8)	--	8.9	3.9
		03/04/20	290	ND(0.2)	ND(8)	--	7.8	3.4 J
		09/20/20	95	ND(0.2)	ND(8)	--	11	8.4 JB
		12/11/20	21.3	ND(0.2)	*ND(100)*	1040	9.91	ND(5)
	OW-11	09/18/17	19	ND(0.2)	--	--	5	ND(5)
		09/18/18	18	0.047	--	--	2.4	ND(5)
		08/20/19	18	ND(0.2)	**180**	--	4.4	ND(5)
		09/20/20	17	ND(0.2)	**210**	--	ND(1)	ND(5)
	OW-12	09/19/17	5.8	ND(0.2)	--	--	0.89	ND(5)
		09/19/18	18	0.054	--	--	ND(1)	ND(5)
		3Q2020	NS - Recovery Well in Place					
		09/17/20	9.5 J	0.15 J+	ND(40)	--	ND(1)	ND(25)
	OW-13	10/14/19	20	ND(0.2)	ND(8)	--	ND(1)	ND(5)
		03/02/20	19	ND(0.2)	9	--	ND(1)	ND(5)
		09/17/20	23	0.13 J+	ND(40)	--	ND(1)	ND(25)
		12/09/20	26.9	ND(0.2)	*ND(100)*	--	ND(5)	ND(5)
	PW-2	09/10/14	ND(2)	ND(0.2)	--	--	1.4	ND(5)
		09/18/17	3.3	ND(0.2)	--	--	1.1	ND(5)
		09/21/20	2	ND(0.2)	ND(8)	--	0.99 J	1.9 J
		12/28/20	10.9	ND(0.2)	*ND(100)*	--	ND(5)	ND(5)
	PW-3	3Q2020	NS					
		09/21/20	4.8	ND(0.2)	ND(8)	--	0.94 J	3.4 J
		12/28/20	19.3	ND(0.2)	*ND(100)*	--	ND(5)	ND(5)
	PW-4	3Q2020	NS					
		09/21/20	1.2 J	ND(0.2)	ND(8)	--	1.1	2.7 J
		12/28/20	ND(10)	ND(0.2)	*ND(100)*	--	ND(5)	ND(5)
[a]NMED GW Cleanup Levels			NA	2	NA	NA	50	50
[b]40 CFR 141.62			NA	2	NA	NA	50	NA
[c]NMED Tap Water			2,020	NA	98.7	NA	98.7	81.2
[d]USEPA RSL Tap Water HQ 1.0			NA	2	NA	NA	50	NA

Notes:
-- = Not Measured
DUP = Duplicate
H2S = Hydrogen Sulfide
MTBE = methyl tert butyl ether
NA = Not Applicable
NS = Not sampled
Q = Quarter
SPH = Separate Phase Hydrocarbon
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the respective screening levels (noted by the superscript).
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
[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, March 2017
[d]USEPA RSL Tap Water HQ 1.0 - United States Environmental Protection Agency Regional Screening Levels, Hazardous Quotient 1.0, November 2019
J = Estimated concentration
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration
JB = Estimated concentration due to blank contamination
J- = Estimated concentration, possibly biased low
R = Rejected, Data not usable

Released to Imaging: 11/22/2022 10:55:50 AM

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

Well Group	Location ID	Date Sampled	Sodium, Total (µg/L)	Thallium, Total (µg/L)	Uranium, Total (µg/L)	Vanadium, Total (µg/L)	Zinc, Total (µg/L)
Western Boundary	BW-4B	03/10/20	--	ND(0.5)	**76**	--	12
		3Q2020			NS - SPH Present		
	BW-5A	4Q2019 - 4Q2020			NS - Dry		
	BW-5B	10/16/19	--	ND(0.5)	**32**	--	ND(10)
		03/05/20	--	ND(0.5)	**32**	--	ND(10)
		09/20/20	--	ND(0.25) UJ	**31**	--	ND(10)
		12/11/20	589000	ND(1)	29.9	--	ND(20)
	BW-5C	10/16/19	--	*ND(2.5)*	**40**	--	ND(10)
		03/05/20	--	ND(0.5)	**42**	--	11 J
		09/19/20	--	ND(1.2) UJ	**53**	--	9.6J/ND(10)U*
		12/09/20	1200000	ND(1)	**46**	--	ND(20)
Deep	OW-01	10/16/19	--	ND(0.5)	**40**	--	ND(10)
		03/09/20	--	ND(0.5)	**38**	--	8.8 J
		09/20/20	--	ND(0.25) UJ	**35**	--	57
		12/11/20	317000	ND(1)	**33.9**	--	ND(20)
	OW-10	10/17/19	--	*ND(2.5)*	**55**	--	ND(10)
		03/04/20	--	*ND(2.5)*	**50**	--	ND(10)
		09/20/20	--	ND(0.25)	**48**	--	ND(10)
		12/11/20	406000	ND(1)	**45.1**	--	ND(20)
	OW-11	09/18/17	--	--	**210**	--	ND(10)
		09/18/18	--	--	**180**	--	ND(10)
		08/20/19	--	ND(0.5)	**190**	--	ND(10)
		09/20/20	--	ND(0.25)	**200**	--	ND(10) UJ
	OW-12	09/19/17	--	--	--	--	17
		09/19/18	--	--	11	--	6.4
		3Q2020			NS - Recovery Well in Place		
		09/17/20	--	ND(0.25)	14	--	ND(50)
	OW-13	10/14/19	--	ND(0.5)	--	--	ND(10)
		03/02/20	--	ND(0.5)	15	--	ND(10)
		09/17/20	--	ND(0.25)	17	--	ND(50)
		12/09/20	--	ND(1)	16	--	ND(20)
	PW-2	09/10/14	--	--	2.4		12
		09/18/17	--	--	2.3		7.1
		09/21/20	--	ND(0.25)	1.4		28 J
		12/28/20	--	ND(1)	ND(5)		106
	PW-3	3Q2020			NS		
		09/21/20	--	ND(0.25)	1.2	--	20
		12/28/20	--	ND(1)	ND(5)	--	46.4
	PW-4	3Q2020			NS		
		09/21/20	--	ND(0.25)	1.3	--	ND(10)
		12/28/20	--	ND(1)	ND(5)	--	ND(20)
	[a]NMED GW Cleanup Levels		NA	2	30	NA	NA
	[b]40 CFR 141.62		NA	2	NA	NA	NA
	[c]NMED Tap Water		NA	143	NA	63.1	5,960
	[d]USEPA RSL Tap Water HQ 1.0		NA	2	NA	NA	NA

Notes:
-- = Not Measured
DUP = Duplicate
H2S = Hydrogen Sulfide
MTBE = methyl tert butyl ether
NA = Not Applicable
NS = Not sampled
Q = Quarter
SPH = Separate Phase Hydrocarbon
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the respective screening levels (noted by the superscript).
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
[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, March 2017
[d]USEPA RSL Tap Water HQ 1.0 - United States Environmental Protection Agency Regional Screening Levels, Hazardous Quotient 1.0, November 2019
J = Estimated concentration
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration
JB = Estimated concentration due to blank contamination
J- = Estimated concentration, possibly biased low
R = Rejected, Data not usable

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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 - Recovery Well in Place				
	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 - Recovery Well in Place				
	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				
	OW-54	4Q2019 - 4Q2020					NS - Recovery Well in Place				
	OW-55	4Q2019 - 4Q2020					NS - Recovery Well in Place				
	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 Present				
	OW-62	4Q2019 - 4Q2020					NS - SPH Present				
	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 Present				
	RW-1	4Q2019 - 3Q2020					NS - Recovery Well in Place				
		4Q2020					NS - SPH Present				
	RW-2	4Q2019 - 3Q2020					NS - Recovery Well in Place				
		4Q2020					NS - SPH Present				
	RW-5	4Q2019 - 3Q2020					NS - Recovery Well in Place				
		4Q2020					NS - SPH Present				
	RW-6	4Q2019 - 3Q2020					NS - Recovery Well in Place				
		4Q2020					NS - SPH Present				
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020					NS - SPH Present				
	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	#VALUE!	*ND(10)*	765	ND(3)	855	*ND(5)*	--	ND(10)
	MKTF-03	4Q2019 - 4Q2020					NS - SPH Present				
	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 Present				
	MKTF-05	4Q2019 - 4Q2020					NS - SPH Present				
	MKTF-06	4Q2019 - 4Q2020					NS - SPH Present				
	MKTF-07	4Q2019 - 4Q2020					NS - SPH Present				
	MKTF-08	4Q2019 - 4Q2020					NS - SPH Present				
	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 Present				
	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 Present				
		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 Present				
	MKTF-12	4Q2019 - 4Q2020					NS - SPH Present				
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	6	10	2000	4	NA	5	NA	100
	[c]NMED Tap Water		19900	7.26	0.855	3280	12.4	3950	6.24	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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 - Recovery Well in Place				
	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 - Recovery Well in Place				
	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				
	OW-54	4Q2019 - 4Q2020					NS - Recovery Well in Place				
	OW-55	4Q2019 - 4Q2020					NS - Recovery Well in Place				
	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 Present				
	OW-62	4Q2019 - 4Q2020					NS - SPH Present				
	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 Present				
	RW-1	4Q2019 - 3Q2020					NS - Recovery Well in Place				
		4Q2020					NS - SPH Present				
	RW-2	4Q2019 - 3Q2020					NS - Recovery Well in Place				
		4Q2020					NS - SPH Present				
	RW-5	4Q2019 - 3Q2020					NS - Recovery Well in Place				
		4Q2020					NS - SPH Present				
	RW-6	4Q2019 - 3Q2020					NS - Recovery Well in Place				
		4Q2020					NS - SPH Present				
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020					NS - SPH Present				
	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 Present				
	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 Present				
	MKTF-05	4Q2019 - 4Q2020					NS - SPH Present				
	MKTF-06	4Q2019 - 4Q2020					NS - SPH Present				
	MKTF-07	4Q2019 - 4Q2020					NS - SPH Present				
	MKTF-08	4Q2019 - 4Q2020					NS - SPH Present				
	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 Present				
	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 Present				
		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 Present				
	MKTF-12	4Q2019 - 4Q2020					NS - SPH Present				
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		5.98	790	13800	NA	NA	2020	NA	98.7	372
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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)	Zinc, Dissolved (µg/L)	Vanadium, Dissolved (µg/L)
Eastern Boundary	OW-14	4Q2019 - 4Q2020				NS - Recovery Well in Place				
	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 - Recovery Well in Place				
	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				
	OW-54	4Q2019 - 4Q2020				NS - Recovery Well in Place				
	OW-55	4Q2019 - 4Q2020				NS - Recovery Well in Place				
	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 Present				
	OW-62	4Q2019 - 4Q2020				NS - SPH Present				
	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 Present				
	RW-1	4Q2019 - 3Q2020				NS - Recovery Well in Place				
		4Q2020				NS - SPH Present				
	RW-2	4Q2019 - 3Q2020				NS - Recovery Well in Place				
		4Q2020				NS - SPH Present				
	RW-5	4Q2019 - 3Q2020				NS - Recovery Well in Place				
		4Q2020				NS - SPH Present				
	RW-6	4Q2019 - 3Q2020				NS - Recovery Well in Place				
		4Q2020				NS - SPH Present				
Marketing Tank Farm Area	MKTF-01	4Q2019 - 4Q2020				NS - SPH Present				
	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 Present				
	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 Present				
	MKTF-05	4Q2019 - 4Q2020				NS - SPH Present				
	MKTF-06	4Q2019 - 4Q2020				NS - SPH Present				
	MKTF-07	4Q2019 - 4Q2020				NS - SPH Present				
	MKTF-08	4Q2019 - 4Q2020				NS - SPH Present				
	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 Present				
	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 Present				
		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 Present				
	MKTF-12	4Q2019 - 4Q2020				NS - SPH Present				
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	50	NA	NA	2	NA	NA	NA
	[c]NMED Tap Water		NA	98.7	81.2	NA	0.197	NA	5960	63.1
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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)
	MKTF-13	10/29/19	ND(20)	ND(1)	**3.4**	**6000**	ND(2)	210	ND(2)	240000	ND(6)
		1Q2020 - 4Q2020					NS - SPH Present				
	MKTF-14	4Q2019 - 4Q2020					NS - SPH Present				
	MKTF-15	4Q2019 - 4Q2020					NS - SPH Present				
	MKTF-16	10/30/19	27	ND(1)	**12**	**4300**	0.49	750	ND(2)	210000	ND(6)
		1Q2020 - 3Q2020					NS - SPH Present				
		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 Present				
	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 Present				
		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 Present				
	MKTF-20	11/05/19	35	0.41	**10**	**2100**	ND(2)	120	ND(2)	110000	ND(6)
		02/05/20									
		3Q2020 - 4Q2020					NS - SPH Present				
	MKTF-21	11/05/19	24	0.52	**19**	**14000**	ND(2)	840	ND(2)	470000	ND(6)
		02/05/20									
		3Q2020 - 4Q2020					NS - SPH Present				
	MKTF-22	10/24/19	23	ND(1)	**1.7**	1400	0.43	410	ND(2)	150000	ND(6)
		1Q2020 - 4Q2020					NS - SPH Present				
	MKTF-23	10/29/19	ND(20)	0.91	**8.4**	1700	ND(2)	490	ND(2)	84000	ND(6)
		1Q2020 - 4Q2020					NS - SPH Present				
	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 Present				
		12/18/20	ND(200) UJ	ND(2)	**1.46**	293	ND(3)	726	*ND(5)*	--	ND(10)
	MKTF-26	4Q2019 - 4Q2020					NS - SPH Present				
	MKTF-27	10/23/19	ND(20)	ND(5)	**1.1**	41	1.1	590	ND(2)	240000	ND(6)
Marketing Tank Farm Area		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 Present				
		12/4/2020					NS - SPH Present				
	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 Present				
	MKTF-36	4Q2019 - 1Q2020					NS - SPH Present				
		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 Present				
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	6	10	2000	4	NA	5	NA	100
	[c]NMED Tap Water		19900	7.26	0.855	3280	12.4	3950	6.24	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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)
	MKTF-13	10/29/19	*ND(6)*	ND(6)	15000	0.18	46000	**4600**	--	ND(8)	ND(10)
		1Q2020 - 4Q2020					NS - SPH Present				
	MKTF-14	4Q2019 - 4Q2020					NS - SPH Present				
	MKTF-15	4Q2019 - 4Q2020					NS - SPH Present				
	MKTF-16	10/30/19	*ND(6)*	ND(6)	15000	0.15	57000	**5500**	--	ND(8)	47
		1Q2020 - 3Q2020					NS - SPH Present				
		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 Present				
	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 Present				
		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 Present				
	MKTF-20	11/05/19	*ND(6)*	5.8	2200	0.26	17000	**2100**	--	ND(8)	5.1
		02/05/20									
		3Q2020 - 4Q2020					NS - SPH Present				
	MKTF-21	11/05/19	*ND(6)*	6.1	8300	1.1	140000	**6200**	--	7.1	59
		02/05/20									
		3Q2020 - 4Q2020					NS - SPH Present				
	MKTF-22	10/24/19	*ND(6)*	3.4	6800	ND(0.5)	29000	**2900**	--	ND(8)	6.6
		1Q2020 - 4Q2020					NS - SPH Present				
	MKTF-23	10/29/19	*ND(6)*	ND(6)	160	0.72	17000	2000	--	12	22
		1Q2020 - 4Q2020					NS - SPH Present				
	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 Present				
		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 Present				
	MKTF-27	10/23/19	*ND(6)*	6.8	17	ND(2.5)	41000	48	--	ND(8)	30
Marketing Tank Farm Area		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 Present				
		12/4/2020					NS - SPH Present				
	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 Present				
	MKTF-36	4Q2019 - 1Q2020					NS - SPH Present				
		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 Present				
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		5.98	790	13800	NA	NA	2020	NA	98.7	372
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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)	Zinc, Dissolved (µg/L)	Vanadium, Dissolved (µg/L)
Marketing Tank Farm Area	MKTF-13	10/29/19	260	--	3.4	190000	*ND(0.5)*	--	24	--
		1Q2020 - 4Q2020					NS - SPH Present			
	MKTF-14	4Q2019 - 4Q2020					NS - SPH Present			
	MKTF-15	4Q2019 - 4Q2020					NS - SPH Present			
	MKTF-16	10/30/19	1900	0.87	3.3	1100000	*ND(0.5)*	--	26	--
		1Q2020 - 3Q2020					NS - SPH Present			
		12/23/20	--	--	--	--	--	--	--	--
		12/28/20	--	--	--	--	--	--	--	--
	MKTF-17	10/29/19	760	--	2.9	270000	*ND(0.5)*	--	34	--
		1Q2020 - 4Q2020					NS - SPH Present			
	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 Present			
		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 Present			
	MKTF-20	11/05/19	14000	0.67	2.2	130000	*ND(0.5)*	0.22	83	--
		02/05/20								
		3Q2020 - 4Q2020					NS - SPH Present			
	MKTF-21	11/05/19	7300	1.1	9.6	1000000	*ND(2.5)*	3.1	63	--
		02/05/20								
		3Q2020 - 4Q2020					NS - SPH Present			
	MKTF-22	10/24/19	860	ND(5)	3	280000	*ND(0.5)*	--	21	--
		1Q2020 - 4Q2020					NS - SPH Present			
	MKTF-23	10/29/19	930	--	1.2	540000	*ND(0.5)*	--	23	--
		1Q2020 - 4Q2020					NS - SPH Present			
	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 Present			
		12/18/20	--	ND(5)	ND(5)	--	*ND(1)*	51.3	ND(20)	--
	MKTF-26	4Q2019 - 1Q2020					NS - SPH Present			
	MKTF-27	10/23/19	11000	1.9	5.7	1900000	*ND(2.5)*	--	34	--
		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 Present			
		12/4/2020					NS - SPH Present			
	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 Present			
	MKTF-36	4Q2019 - 1Q2020					NS - SPH Present			
		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 Present			
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	50	NA	NA	2	NA	NA	NA
	[c]NMED Tap Water		NA	98.7	81.2	NA	0.197	NA	5960	63.1
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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 Present				
		09/17/20	ND(20)	ND(1)	**2.6**	1700	ND(2)	510	ND(2) UJ	72000	ND(6)
		12/4/2020					NS - SPH Present				
	MKTF-38	4Q2019					NS - SPH Present				
		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 Present				
	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 Present				
	MKTF-46	4Q2019					NS - SPH Present				
		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 Present				
	MKTF-48	2Q2020 - 4Q2020					NS - SPH Present				
	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 Present				
		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 Present				
		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 Present				
		12/17/20	8440 J	ND(2)	**2.85**	14.8	ND(3)	ND(100)	*ND(5)*	--	2300
	NAPIS-1	4Q2019 - 3Q2020					NS - SPH Present				
	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 Present				
	Oil Sump LDU	4Q2019 - 4Q2020					NS - H2S Present				
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020					NS - SPH Present				
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	6	10	2000	4	NA	5	NA	100
	[c]NMED Tap Water		19900	7.26	0.855	3280	12.4	3950	6.24	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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 Present				
		09/17/20	*ND(6) UJ*	ND(6)	11000	0.76	16000	1200	--	ND(8)	ND(50)
		12/4/2020					NS - SPH Present				
	MKTF-38	4Q2019					NS - SPH Present				
		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 Present				
	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 Present				
	MKTF-46	4Q2019					NS - SPH Present				
		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 Present				
	MKTF-48	2Q2020 - 4Q2020					NS - SPH Present				
	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 Present				
		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 Present				
		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 Present				
		12/17/20	**32.8**	ND(20)	24700 J	ND(1)	--	3150	ND(0.2)	*ND(100)*	**4160**
	NAPIS-1	4Q2019 - 3Q2020					NS - SPH Present				
	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 Present				
	Oil Sump LDU	4Q2019 - 4Q2020					NS - H2S Present				
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020					NS - SPH Present				
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		5.98	790	13800	NA	NA	2020	NA	98.7	372
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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)	Zinc, Dissolved (µg/L)	Vanadium, Dissolved (µg/L)
Marketing Tank Farm Area	MKTF-37	4Q2019 - 1Q2020				NS - SPH Present				
		09/17/20	1900	ND(1)	ND(25)	280000	*ND(0.5)*	2.1	15	--
		12/4/2020				NS - SPH Present				
	MKTF-38	4Q2019				NS - SPH Present				
		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 Present				
	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 Present				
	MKTF-46	4Q2019				NS - SPH Present				
		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 Present				
	MKTF-48	2Q2020 - 4Q2020				NS - SPH Present				
	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 Present				
		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 Present				
		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 Present				
		12/17/20	--	ND(5)	ND(5)	--	*ND(1)*	ND(5)	ND(20)	--
	NAPIS-1	4Q2019 - 3Q2020				NS - SPH Present				
	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 Present				
	Oil Sump LDU	4Q2019 - 4Q2020				NS - H2S Present				
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020				NS - SPH Present				
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	50	NA	NA	2	NA	NA	NA
	[c]NMED Tap Water		NA	98.7	81.2	NA	0.197	NA	5960	63.1
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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-2	4Q2019					NS - Dry				
		1Q2020					NS - SPH Present				
		3Q2020 - 4Q2020					NS - Dry				
	GWM-3	4Q2019					NS - Dry				
		1Q2020					NS - SPH Present				
		3Q2020 - 4Q2020					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)*
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	6	10	2000	4	NA	5	NA	100
	[c]NMED Tap Water		19900	7.26	0.855	3280	12.4	3950	6.24	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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-2	4Q2019					NS - Dry				
		1Q2020					NS - SPH Present				
		3Q2020 - 4Q2020					NS - Dry				
	GWM-3	4Q2019					NS - Dry				
		1Q2020					NS - SPH Present				
		3Q2020 - 4Q2020					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**
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		5.98	790	13800	NA	NA	2020	NA	98.7	372
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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)	Zinc, Dissolved (µg/L)	Vanadium, Dissolved (µg/L)
Solid Waste Management Unit 1	GWM-2	4Q2019					NS - Dry			
		1Q2020					NS - SPH Present			
		3Q2020 - 4Q2020					NS - Dry			
	GWM-3	4Q2019					NS - Dry			
		1Q2020					NS - SPH Present			
		3Q2020 - 4Q2020					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	6.9	2.2
		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	9.4	45
		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)	--
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	50	NA	NA	2	NA	NA	NA
	[c]NMED Tap Water		NA	98.7	81.2	NA	0.197	NA	5960	63.1
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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				
	BW-1B	3Q2020					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									
	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				
	BW-4B	03/10/20	1000	ND(0.62) J	**9**	50	0.34 J	2200	ND(2)	4800	ND(6)
		3Q2020					NS - SPH Present				
	BW-5A	4Q2019 - 4Q2020					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
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	6	10	2000	4	NA	5	NA	100
	[c]NMED Tap Water		19900	7.26	0.855	3280	12.4	3950	6.24	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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				
	BW-1B	3Q2020					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									
	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				
	BW-4B	03/10/20	*ND(6)*	ND(6)	490	ND(0.16) J	730 J	34	--	25	ND(10)
		3Q2020					NS - SPH Present				
	BW-5A	4Q2019 - 4Q2020					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)
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		5.98	790	13800	NA	NA	2020	NA	98.7	372
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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)	Zinc, Dissolved (µg/L)	Vanadium, 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)	8	ND(50)
		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	6.3	ND(50)
		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								
	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	7.6	ND(50)
		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 Present			
	BW-5A	4Q2019 - 4Q2020					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	--
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	50	NA	NA	2	NA	NA	NA
	[c]NMED Tap Water		NA	98.7	81.2	NA	0.197	NA	5960	63.1
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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					NS				
		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					NS				
		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)
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	6	10	2000	4	NA	5	NA	100
	[c]NMED Tap Water		19900	7.26	0.855	3280	12.4	3950	6.24	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
-- = Not Measured
DUP = Duplicate
H2S = Hydrogen Sulfide
MTBE = methyl tert butyl ether
NA = Not Applicable
NS = Not sampled
Q = Quarter
SPH = Separate Phase Hydrocarbon
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the respective screening levels (noted by the superscript).
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
[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, March 2017
[d]USEPA RSL Tap Water HQ 1.0 - United States Environmental Protection Agency Regional Screening Levels, Hazardous Quotient 1.0, November 2019
J = Estimated concentration
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration
JB = Estimated concentration due to blank contamination
J- = Estimated concentration, possibly biased low
R = Rejected, Data not usable

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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					NS				
		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					NS				
		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)
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		5.98	790	13800	NA	NA	2020	NA	98.7	372
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
-- = Not Measured
DUP = Duplicate
H2S = Hydrogen Sulfide
MTBE = methyl tert butyl ether
NA = Not Applicable
NS = Not sampled
Q = Quarter
SPH = Separate Phase Hydrocarbon
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the respective screening levels (noted by the superscript).
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
[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, March 2017
[d]USEPA RSL Tap Water HQ 1.0 - United States Environmental Protection Agency Regional Screening Levels, Hazardous Quotient 1.0, November 2019
J = Estimated concentration
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration
JB = Estimated concentration due to blank contamination
J- = Estimated concentration, possibly biased low
R = Rejected, Data not usable

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

TABLE 4-5. METALS (DISSOLVED) ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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)	Zinc, Dissolved (µg/L)	Vanadium, 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					NS			
		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					NS			
		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)	--
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	50	NA	NA	2	NA	NA	NA
	[c]NMED Tap Water		NA	98.7	81.2	NA	0.197	NA	5960	63.1
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA

Notes:
-- = Not Measured
DUP = Duplicate
H2S = Hydrogen Sulfide
MTBE = methyl tert butyl ether
NA = Not Applicable
NS = Not sampled
Q = Quarter
SPH = Separate Phase Hydrocarbon
µg/L = micrograms per liter
Bolded detections and italicized non-detections exceeded the respective screening levels (noted by the superscript).
Monitoring wells not sampled during the second quarter of 2020 due to the COVID-19 pandemic.
[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, March 2017
[d]USEPA RSL Tap Water HQ 1.0 - United States Environmental Protection Agency Regional Screening Levels, Hazardous Quotient 1.0, November 2019
J = Estimated concentration
UJ = Estimated reporting limit
U = Evaluated to be undetected at the reported concentration
JB = Estimated concentration due to blank contamination
J- = Estimated concentration, possibly biased low
R = Rejected, Data not usable

Released to Imaging: 11/22/2022 10:55:50 AM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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 - Recovery Well in Place					
	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 - Recovery Well in Place					
	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					
	OW-54	4Q2019 - 4Q2020					NS - Recovery Well in Place					
	OW-55	4Q2019 - 4Q2020					NS - Recovery Well in Place					
	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 Present					
	OW-62	4Q2019 - 4Q2020					NS - SPH Present					
	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 Present					
	RW-1	4Q2019 - 3Q2020					NS - Recovery Well in Place					
		4Q2020					NS - SPH Present					
	RW-2	4Q2019 - 3Q2020					NS - Recovery Well in Place					
		4Q2020					NS - SPH Present					
	RW-5	4Q2019 - 3Q2020					NS - Recovery Well in Place					
		4Q2020					NS - SPH Present					
	RW-6	4Q2019 - 3Q2020					NS - Recovery Well in Place					
		4Q2020					NS - SPH Present					
Marketing Tank Farm	MKTF-01	4Q2019 - 4Q2020					NS - SPH Present					
	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 Present					
	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 Present					
	MKTF-05	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-06	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-07	4Q2019 - 4Q2020					NS - SPH Present					
	MKTF-08	4Q2019 - 4Q2020					NS - SPH Present					
	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 Present					
	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 Present					
		12/18/20	--	--	--	937000	--	ND(1000) UJ	--	ND(100) UJ	--	--
	[a]NMED GW Cleanup Levels		NA	NA	NA	250,000	NA	1,600	NA	10,000	NA	1,000
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	4,000	NA	10,000	10,000	1,000
	[c]NMED Tap Water		NA	NA	NA	NA	NA	1,180	NA	NA	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	800	NA	32,000	NA	2,000
	[e]NMED TPH Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Ortho-Phosphate (ug/L)	Ortho- Phosphorus (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 - Recovery Well in Place					
	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 - Recovery Well in Place					
	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				
	OW-54	4Q2019 - 4Q2020						NS - Recovery Well in Place				
	OW-55	4Q2019 - 4Q2020						NS - Recovery Well in Place				
	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 Present				
	OW-62	4Q2019 - 4Q2020						NS - SPH Present				
	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 Present				
	RW-1	4Q2019 - 3Q2020						NS - Recovery Well in Place				
		4Q2020						NS - SPH Present				
	RW-2	4Q2019 - 3Q2020						NS - Recovery Well in Place				
		4Q2020						NS - SPH Present				
	RW-5	4Q2019 - 3Q2020						NS - Recovery Well in Place				
		4Q2020						NS - SPH Present				
	RW-6	4Q2019 - 3Q2020						NS - Recovery Well in Place				
		4Q2020						NS - SPH Present				
Marketing Tank Farm	MKTF-01	4Q2019 - 4Q2020						NS - SPH Present				
	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 Present				
	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 Present				
	MKTF-05	4Q2019 - 4Q2020						NS - SPH Present				
	MKTF-06	4Q2019 - 4Q2020						NS - SPH Present				
	MKTF-07	4Q2019 - 4Q2020						NS - SPH Present				
	MKTF-08	4Q2019 - 4Q2020						NS - SPH Present				
	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 Present				
	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 Present				
		12/18/20	--	--	ND(1000)	5540	--	--	--	ND(129)	31800	--
	[a]NMED GW Cleanup Levels		NA	NA	600,000	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[e]NMED TPH Levels		NA	NA	NA	16.7	10.1	85.8	85.8	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Solids, Total Suspended (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 - Recovery Well in Place			
	OW-29	10/14/19	--	--	--	--	--	--	--
		02/24/20	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--
		12/09/20	--	--	--	--	--	--	--
	OW-30	4Q2019 - 4Q2020				NS - Recovery Well in Place			
	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			
	OW-54	4Q2019 - 4Q2020				NS - Recovery Well in Place			
	OW-55	4Q2019 - 4Q2020				NS - Recovery Well in Place			
	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 Present			
	OW-62	4Q2019 - 4Q2020				NS - SPH Present			
	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 Present			
	RW-1	4Q2019 - 3Q2020				NS - Recovery Well in Place			
		4Q2020				NS - SPH Present			
	RW-2	4Q2019 - 3Q2020				NS - Recovery Well in Place			
		4Q2020				NS - SPH Present			
	RW-5	4Q2019 - 3Q2020				NS - Recovery Well in Place			
		4Q2020				NS - SPH Present			
	RW-6	4Q2019 - 3Q2020				NS - Recovery Well in Place			
		4Q2020				NS - SPH Present			
Marketing Tank Farm	MKTF-01	4Q2019 - 4Q2020				NS - SPH Present			
	MKTF-02	11/19/19	--	--	--	--	--	--	--
		02/25/20	--	--	--	--	--	--	--
		09/21/20	20000	--	--	--	--	--	--
		12/18/20	--	--	--	--	--	--	--
	MKTF-03	4Q2019 - 4Q2020				NS - SPH Present			
	MKTF-04	10/30/19	--	--	--		--		--
		03/03/20	--	--	--		--		--
		3Q2020 - 4Q2020				NS - SPH Present			
	MKTF-05	4Q2019 - 4Q2020				NS - SPH Present			
	MKTF-06	4Q2019 - 4Q2020				NS - SPH Present			
	MKTF-07	4Q2019 - 4Q2020				NS - SPH Present			
	MKTF-08	4Q2019 - 4Q2020				NS - SPH Present			
	MKTF-09	11/18/19	--	--	--	--	--	--	--
		03/03/20	--	--	--	--	--	--	--
		3Q2020 - 4Q2020				NS - SPH Present			
	MKTF-10	10/30/19	--	--	--	--	--	--	--
		03/03/20	--	--	--	--	--	--	--
		3Q2020				NS - SPH Present			
		12/18/20	--	--	--	--	--	--	--
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	NA	NA	NA	NA	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA
	[e]NMED TPH Levels		NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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 Present				
	MKTF-12	4Q2019 - 4Q2020						NS - SPH Present				
	MKTF-13	10/29/19	--	740	--	290000	--	380	--	ND(500)	--	ND(500)
		1Q2020 - 4Q2020						NS - SPH Present				
	MKTF-14	4Q2019 - 4Q2020						NS - SPH Present				
	MKTF-15	4Q2019 - 4Q2020						NS - SPH Present				
	MKTF-16	10/30/19	--	1800	--	1700000	--	810	--	ND(500)	--	ND(500)
		1Q2020 - 3Q2020						NS - SPH Present				
		12/23/20	--	--	--	--	--	--	--	--	--	--
	MKTF-17	10/29/19	--	1300	--	240000	--	820	--	ND(500)	--	ND(500)
		1Q2020 - 4Q2020						NS - SPH Present				
	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 Present				
		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 Present				
	MKTF-20	11/05/19	--	610	--	140000	--	ND(500)	--	ND(500)	--	ND(500)
		02/05/20	--	--	--	--	--	--	--	--	--	--
		3Q2020 - 4Q2020						NS - SPH Present				
	MKTF-21	11/05/19	--	1900	--	2300000	--	2400	--	ND(500)	--	ND(500)
		02/05/20	--	--	--	--	--	--	--	--	--	--
		3Q2020 - 4Q2020						NS - SPH Present				
	MKTF-22	10/24/19	--	1200	--	190000	--	410	--	ND(500)	--	ND(500)
		1Q2020 - 4Q2020						NS - SPH Present				
	MKTF-23	10/29/19	--	1000	--	440000	--	750	--	ND(500)	--	ND(500)
		1Q2020 - 4Q2020						NS - SPH Present				
	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 Present				
	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 Present				
	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)
	[a]NMED GW Cleanup Levels		NA	NA	NA	250,000	NA	1,600	NA	10,000	NA	1,000
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	4,000	NA	10,000	10,000	1,000
	[c]NMED Tap Water		NA	NA	NA	NA	NA	1,180	NA	NA	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	800	NA	32,000	NA	2,000
	[e]NMED TPH Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Ortho-Phosphate (ug/L)	Ortho- Phosphorus (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 Present				
	MKTF-12	4Q2019 - 4Q2020						NS - SPH Present				
	MKTF-13	10/29/19	--	ND(2500)	590	7300	23000	ND(2500)	--	--	--	--
		1Q2020 - 4Q2020						NS - SPH Present				
	MKTF-14	4Q2019 - 4Q2020						NS - SPH Present				
	MKTF-15	4Q2019 - 4Q2020						NS - SPH Present				
	MKTF-16	10/30/19	--	ND(2500)	ND(2500)	240	33000	ND(2500)	--	--	--	--
		1Q2020 - 3Q2020						NS - SPH Present				
		12/23/20	--	--	--	--	--	--	--	--	32000	--
	MKTF-17	10/29/19	--	ND(2500)	6200	700	78000	ND(2500)	--	--	--	--
		1Q2020 - 4Q2020						NS - SPH Present				
	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 Present				
		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 Present				
	MKTF-20	11/05/19	--	ND(2500)	1700	1500	7000	ND(2500)	--	--	--	--
		02/05/20	--	--	--	1000	4600	--	ND(2500)	--	--	--
		3Q2020 - 4Q2020						NS - SPH Present				
	MKTF-21	11/05/19	--	ND(2500)	19000	2700	27000	ND(2500)	--	--	--	--
		02/05/20	--	--	--	310 J	740	--	ND(2500)	--	--	--
		3Q2020 - 4Q2020						NS - SPH Present				
	MKTF-22	10/24/19	--	ND(2500)	2900	280	9000	ND(2500)	--	--	--	--
		1Q2020 - 4Q2020						NS - SPH Present				
	MKTF-23	10/29/19	--	ND(2500)	1700	2200000	55000	ND(125000)	--	--	--	--
		1Q2020 - 4Q2020						NS - SPH Present				
	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)	--	--	--	--
Marketing Tank Farm		11/18/19	--	--	--	--	--	--	--	--	--	--
		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 Present				
	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 Present				
	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	--	--	--
	[a]NMED GW Cleanup Levels		NA	NA	600,000	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[e]NMED TPH Levels		NA	NA	NA	16.7	10.1	85.8	85.8	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Solids, Total Suspended (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 Present			
	MKTF-12	4Q2019 - 4Q2020				NS - SPH Present			
	MKTF-13	10/29/19	--	--	--	--	--	--	--
		1Q2020 - 4Q2020				NS - SPH Present			
	MKTF-14	4Q2019 - 4Q2020				NS - SPH Present			
	MKTF-15	4Q2019 - 4Q2020				NS - SPH Present			
	MKTF-16	10/30/19	--	--	--	--	--	--	--
		1Q2020 - 3Q2020				NS - SPH Present			
		12/23/20	--	--	--	--	--	--	--
	MKTF-17	10/29/19	--	--	--	--	--	--	--
		1Q2020 - 4Q2020				NS - SPH Present			
	MKTF-18	10/29/19	--	--	--	--	--	--	--
		02/06/20	--	--	--	--	--	--	--
		3Q2020				NS - SPH Present			
		12/16/20	--	--	--	--	--	--	--
	MKTF-19	10/29/19	--	--	--	--	--	--	--
		1Q2020 - 4Q2020				NS - SPH Present			
	MKTF-20	11/05/19	--	--	--	--	--	--	--
		02/05/20	--	--	--	--	--	--	--
		3Q2020 - 4Q2020				NS - SPH Present			
	MKTF-21	11/05/19	--	--	--	--	--	--	--
		02/05/20	--	--	--	--	--	--	--
		3Q2020 - 4Q2020				NS - SPH Present			
	MKTF-22	10/24/19	--	--	--	--	--	--	--
		1Q2020 - 4Q2020				NS - SPH Present			
	MKTF-23	10/29/19	--	--	--	--	--	--	--
		1Q2020 - 4Q2020				NS - SPH Present			
	MKTF-24	10/23/19	--	--	--	--	--	--	--
		11/19/19	--	--	--	--	--	--	--
		02/25/20	--	--	--	--	--	--	--
		09/19/20	--	--	--	--	--	--	--
		12/18/20	--	--	--	--	--	--	--
	MKTF-25	10/23/19	--	--	--	--	--	--	--
Marketing Tank Farm		11/18/19	--	--	--	--	--	--	--
		02/27/20	--	--	--	--	--	--	--
		12/18/20	--	--	--	--	--	--	--
	MKTF-26	4Q2019 - 4Q2020				NS - SPH Present			
	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 Present			
	MKTF-34	10/29/19	--	--	--	--	--	--	--
		02/05/20	--	--	--	--	--	--	--
		02/28/20	--	--	--	--	--	--	--
		09/16/20	--	--	--	--	7.52 J	--	--
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	NA	NA	NA	NA	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA
	[e]NMED TPH Levels		NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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-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 Present				
	MKTF-36	4Q2019 - 1Q2020						NS - SPH Present				
		09/18/20	--	730 J	--	240000 J	1900 J	790 J	--	110 J	--	ND(500) UJ
		4Q2020						NS - SPH Present				
	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 Present				
	MKTF-38	4Q2019						NS - SPH Present				
		03/05/20	--	690	--	290000	--	870	--	12000	--	150 J
		09/19/20	--	810	--	630000	--	1000	11000	--	--	--
		4Q2020						NS - SPH Present				
	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
Marketing Tank Farm		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 Present				
	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 Present				
	MKTF-48	2Q2020 - 4Q2020						NS - SPH Present				
	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 Present				
		12/16/20	--	--	--	665000	--	3300	--	4310	--	--
	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 Present				
		12/17/20	--	--	--	--	--	--	--	--	--	--
	LDU - West	11/19/19	--	--	--	--	--	--	--	--	--	--
		03/10/20	--	--	--	--	--	--	--	--	--	--
Wastewater Treatment Plant		3Q2020						NS - H2S Present				
		12/17/20	--	--	--	--	--	--	--	--	--	--
	NAPIS-1	4Q2019 - 3Q2020						NS - SPH Present				
	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)	--	--
	[a]NMED GW Cleanup Levels		NA	NA	NA	250,000	NA	1,600	NA	10,000	NA	1,000
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	4,000	NA	10,000	10,000	1,000
	[c]NMED Tap Water		NA	NA	NA	NA	NA	1,180	NA	NA	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	800	NA	32,000	NA	2,000
	[e]NMED TPH Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Received by OCD: 9/1/2021 3:58:35 PM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Ortho-Phosphate (ug/L)	Ortho- Phosphorus (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-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 Present				
	MKTF-36	4Q2019 - 1Q2020						NS - SPH Present				
		09/18/20	ND(2500) UJ	--	ND(2500) UJ	15000 J	100000 J-	--	ND(6000) UJ	--	--	1040000
		4Q2020						NS - SPH Present				
	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 Present				
	MKTF-38	4Q2019						NS - SPH Present				
		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 Present				
	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)	--	--	--
Marketing Tank Farm		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 Present				
	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 Present				
	MKTF-48	2Q2020 - 4Q2020						NS - SPH Present				
	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 Present				
		12/16/20	--	--	11500 JB	7410	--	--	--	327	17000	--
	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 Present				
		12/17/20	--	--	--	5240	--	--	--	ND(148)	1490	--
	LDU - West	11/19/19	--	--	--	2300	130	ND(2500)	--	--	--	--
		03/10/20	--	--	--	3000	910	--	ND(2500)	--	--	--
Wastewater Treatment Plant		3Q2020						NS - H2S Present				
		12/17/20	--	--	--	2860	--	--	--	ND(140)	444	--
	NAPIS-1	4Q2019 - 3Q2020						NS - SPH Present				
	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-	--
	[a]NMED GW Cleanup Levels		NA	NA	600,000	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[e]NMED TPH Levels		NA	NA	NA	16.7	10.1	85.8	85.8	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Solids, Total Suspended (ug/L)	Soluble Salt (ug/L)	Coliform, E-Coli (MPN/100ml)	E-Coli (MPN/100ml)	pH (Std Units)	Resistivity (Mohm/cm)	Temperature (oC)
	MKTF-35	10/29/19	--	--	--	--	--	--	--
		02/06/20	--	--	--	--	--	--	--
		09/16/20	--	--	--	--	7.3 J	--	--
		4Q2020				NS - SPH Present			
	MKTF-36	4Q2019 - 1Q2020				NS - SPH Present			
		09/18/20	74000	--	--	--	7.16 J	--	--
		4Q2020				NS - SPH Present			
	MKTF-37	4Q2019 - 1Q2020	120000	--	--	--	7.47 J	--	--
		09/17/20	ND(25)	280000	*ND(0.5)*	2.1	15	--	--
		4Q2020				NS - SPH Present			
	MKTF-38	4Q2019				NS - SPH Present			
		03/05/20	--	--	--	--	--	--	--
		09/19/20	--	--	--	--	--	--	--
		4Q2020				NS - SPH Present			
	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	--	--	--	--	--	--	--
Marketing Tank Farm		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 Present			
	MKTF-46	03/06/20	--	--	--	--	--	--	--
		09/17/20	--	--	--	--	--	--	--
		12/16/20	--	--	--	--	--	--	--
	MKTF-47	03/06/20	--	--	--	--	--	--	--
		3Q2020 - 4Q2020				NS - SPH Present			
	MKTF-48	2Q2020 - 4Q2020				NS - SPH Present			
	MKTF-49	03/05/20	--	--	--	--	--	--	--
		09/20/20	540000	--	--	--	--	--	--
		12/23/20	--	--	--	--	--	--	--
	MKTF-50	03/05/20	--	--	--	--	--	--	--
		3Q2020				NS - SPH Present			
		12/16/20	--	--	--	--	--	--	--
	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 Present			
		12/17/20	--	--	--	--	--	--	--
	LDU - West	11/19/19	--	--	--	--	--	--	--
		03/10/20	--	--	--	--	--	--	--
Wastewater Treatment Plant		3Q2020				NS - H2S Present			
		12/17/20	--	--	--	--	--	--	--
	NAPIS-1	4Q2019 - 3Q2020				NS - SPH Present			
	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	--	--	--	--	--	--	--
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	NA	NA	NA	NA	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA
	[e]NMED TPH Levels		NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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 Present				
		12/23/20	--	--	--	2440000	--	ND(1000)	--	27600 J	--	--
	STP1-SW	4Q2019 - 4Q2020						NS - H2S Present				
	Oil Sump LDU	4Q2019 - 4Q2020						NS - H2S Present				
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020						NS - SPH Present				
	GWM-2	4Q2019						NS - Dry				
		1Q2020						NS - SPH Present				
		3Q2020 - 4Q2020						NS - Dry				
	GWM-3	4Q2019						NS - Dry				
		1Q2020						NS - SPH Present				
		3Q2020 - 4Q2020						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
	[a]NMED GW Cleanup Levels		NA	NA	NA	250,000	NA	1,600	NA	10,000	NA	1,000
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	4,000	NA	10,000	10,000	1,000
	[c]NMED Tap Water		NA	NA	NA	NA	NA	1,180	NA	NA	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	800	NA	32,000	NA	2,000
	[e]NMED TPH Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Ortho-Phosphate (ug/L)	Ortho- Phosphorus (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 Present				
		12/23/20	--	--	155000	594	--	--	--	ND(139)	ND(100)	--
	STP1-SW	4Q2019 - 4Q2020						NS - H2S Present				
	Oil Sump LDU	4Q2019 - 4Q2020						NS - H2S Present				
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020						NS - SPH Present				
	GWM-2	4Q2019						NS - Dry				
		1Q2020						NS - SPH Present				
		3Q2020 - 4Q2020						NS - Dry				
	GWM-3	4Q2019						NS - Dry				
		1Q2020						NS - SPH Present				
		3Q2020 - 4Q2020						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
	[a]NMED GW Cleanup Levels		NA	NA	600,000	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[e]NMED TPH Levels		NA	NA	NA	16.7	10.1	85.8	85.8	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Solids, Total Suspended (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 Present			
		12/23/20	--	--	--	--	--	--	--
	STP1-SW	4Q2019 - 4Q2020				NS - H2S Present			
	Oil Sump LDU	4Q2019 - 4Q2020				NS - H2S Present			
Solid Waste Management Unit 1	GWM-1	4Q2019 - 4Q2020				NS - SPH Present			
	GWM-2	4Q2019				NS - Dry			
		1Q2020				NS - SPH Present			
		3Q2020 - 4Q2020				NS - Dry			
	GWM-3	4Q2019				NS - Dry			
		1Q2020				NS - SPH Present			
		3Q2020 - 4Q2020				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
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	NA	NA	NA	NA	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA
	[e]NMED TPH Levels		NA	NA	NA	NA	NA	NA	NA

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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)
	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
Evaporation Ponds		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	--	--	--	--	--	--	--
	BW-1A	3Q2020						NS - Dry				
	BW-1B	3Q2020						NS - Dry				
	BW-1C	09/13/17	--	150	--	32000	--	2100	--	ND(500)	--	ND(500)
		09/12/18	--	160	--	33000	--	2400	ND(1000)	--	--	--
Western Boundary		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)
	[a]NMED GW Cleanup Levels		NA	NA	NA	250,000	NA	1,600	NA	10,000	NA	1,000
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	4,000	NA	10,000	10,000	1,000
	[c]NMED Tap Water		NA	NA	NA	NA	NA	1,180	NA	NA	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	800	NA	32,000	NA	2,000
	[e]NMED TPH Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Ortho-Phosphate (ug/L)	Ortho- Phosphorus (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)
Evaporation Ponds	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
		11/20/19	--	ND(100000)	14000000	--	--	--	--	--	--	--
		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
Western Boundary	BW-1A	3Q2020						NS - Dry				
	BW-1B	3Q2020						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)	--	--	--
		08/14/19	--	ND(2500)	250000	ND(1000)	ND(50)	ND(5000)	--	--	--	--
		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	--	--	--
	[a]NMED GW Cleanup Levels		NA	NA	600,000	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[e]NMED TPH Levels		NA	NA	NA	16.7	10.1	85.8	85.8	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

Received by OCD: 9/1/2021 3:58:35 PM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Solids, Total Suspended (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			
	BW-1B	3Q2020				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	--	--	--	--	--	--	--
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	NA	NA	NA	NA	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA
	[e]NMED TPH Levels		NA	NA	NA	NA	NA	NA	NA

Released to Imaging: 11/22/2022 10:55:50 AM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, 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)
	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				
	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)	--	--	--
Western Boundary		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				
	BW-4B	03/10/20	--	ND(500)	--	73000	--	730	--	ND(500)	--	ND(500)
		12/28/20	--	--	--	--	--	--	--	--	--	--
	BW-5A	4Q2020						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	3Q2019						NS				
		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	3Q2019						NS				
		09/21/20	--	--	--	--	--	--	--	160J/ND(500)U*	--	ND(500)
		12/28/20	--	--	--	--	--	--	--	112H/ND(112)U*	112/ND(112)U*	ND(100)
	[a]NMED GW Cleanup Levels		NA	NA	NA	250,000	NA	1,600	NA	10,000	NA	1,000
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	4,000	NA	10,000	10,000	1,000
	[c]NMED Tap Water		NA	NA	NA	NA	NA	1,180	NA	NA	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	800	NA	32,000	NA	2,000
	[e]NMED TPH Levels		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
-- = Not Measured
DUP = Duplicate
NA = Not Applicable
ug/L = micrograms per liter
umhos/cm = micromhos per centimeter
Std Units = Standard Units
deg. C = degrees Celsius
Data prior to July 2019 was not validated and flags have not been applied.
Bolded detections and italicized non-detections exceeded the respective screening levels (noted by the superscript).
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, March 2017
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 J+ = Estimated concentration, possibly biased high
J- = Estimated concentration, possibly biased low
J = Estimated concentration

Released to Imaging: 11/22/2022 10:55:50 AM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Ortho-Phosphate (ug/L)	Ortho- Phosphorus (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)
	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				
	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)	--	--	--
Western Boundary		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				
	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				
	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	--
	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)	--	--	--
Deep		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	3Q2019						NS				
		09/21/20	--	--	--	--	--	--	--	--	--	--
		12/28/20	--	--	--	--	--	--	--	--	--	--
	PW-4	3Q2019						NS				
		09/21/20	--	--	--	--	--	--	--	--	--	--
		12/28/20	--	--	--	--	--	--	--	--	--	--
	[a]NMED GW Cleanup Levels		NA	NA	600,000	NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	[e]NMED TPH Levels		NA	NA	NA	16.7	10.1	85.8	85.8	NA	NA	NA

Notes:
-- = Not Measured
DUP = Duplicate
NA = Not Applicable
ug/L = micrograms per liter
umhos/cm = micromhos per centimeter
Std Units = Standard Units
deg. C = degrees Celsius
Data prior to July 2019 was not validated and flags have not been applied.
Bolded detections and italicized non-detections exceeded the respective screening levels (noted by the superscript).
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, March 2017
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 J+ = Estimated concentration, possibly biased high
J- = Estimated concentration, possibly biased low
J = Estimated concentration

Released to Imaging: 11/22/2022 10:55:50 AM

TABLE 4-6. GENERAL CHEMISTRY AND TOTAL PETROLEUM HYDROCARBON ANALYTICAL DATA
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

	Location ID	Date Sampled	Solids, Total Suspended (ug/L)	Soluble Salt (ug/L)	Coliform, E-Coli (MPN/100ml)	E-Coli (MPN/100ml)	pH (Std Units)	Resistivity (Mohm/cm)	Temperature (oC)
	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			
	BW-3B	09/13/17	--	--	--	--	--	--	--
		09/12/18	--	--	--	--	--	--	--
		08/14/19	--	--	--	--	--	--	--
		09/21/20	--	--	--	--	--	--	--
	BW-3C	09/13/17	--	--	--	--	--	--	--
Western Boundary		09/18/18	--	--	--	--	--	--	--
		08/14/19	--	--	--	--	--	--	--
		09/22/20	--	--	--	--	--	--	--
	BW-4A	4Q2020				NS - Dry			
	BW-4B	03/10/20	--	--	--	--	--	--	--
		12/28/20	--	--	--	--	--	--	--
	BW-5A	4Q2020				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	--	--	--	--	--	--	--
	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	--	--	--	--	--	--	--
Deep		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	3Q2019				NS			
		09/21/20	--	--	--	--	--	--	--
		12/28/20	--	--	--	--	--	--	--
	PW-4	3Q2019				NS			
		09/21/20	--	--	--	--	--	--	--
		12/28/20	--	--	--	--	--	--	--
	[a]NMED GW Cleanup Levels		NA	NA	NA	NA	NA	NA	NA
	[b]40 CFR 141.62		NA	NA	NA	NA	NA	NA	NA
	[c]NMED Tap Water		NA	NA	NA	NA	NA	NA	NA
	[d]USEPA RSL Tap Water HQ 1.0		NA	NA	NA	NA	NA	NA	NA
	[e]NMED TPH Levels		NA	NA	NA	NA	NA	NA	NA

Notes:
-- = Not Measured
DUP = Duplicate
NA = Not Applicable
ug/L = micrograms per liter
umhos/cm = micromhos per centimeter
Std Units = Standard Units
deg. C = degrees Celsius
Data prior to July 2019 was not validated and flags have not been applied.
Bolded detections and italicized non-detections exceeded the respective screening levels (noted by the superscript).
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, March 2017
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 J+ = Estimated concentration, possibly biased high
J- = Estimated concentration, possibly biased low
J = Estimated concentration

Released to Imaging: 11/22/2022 10:55:50 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

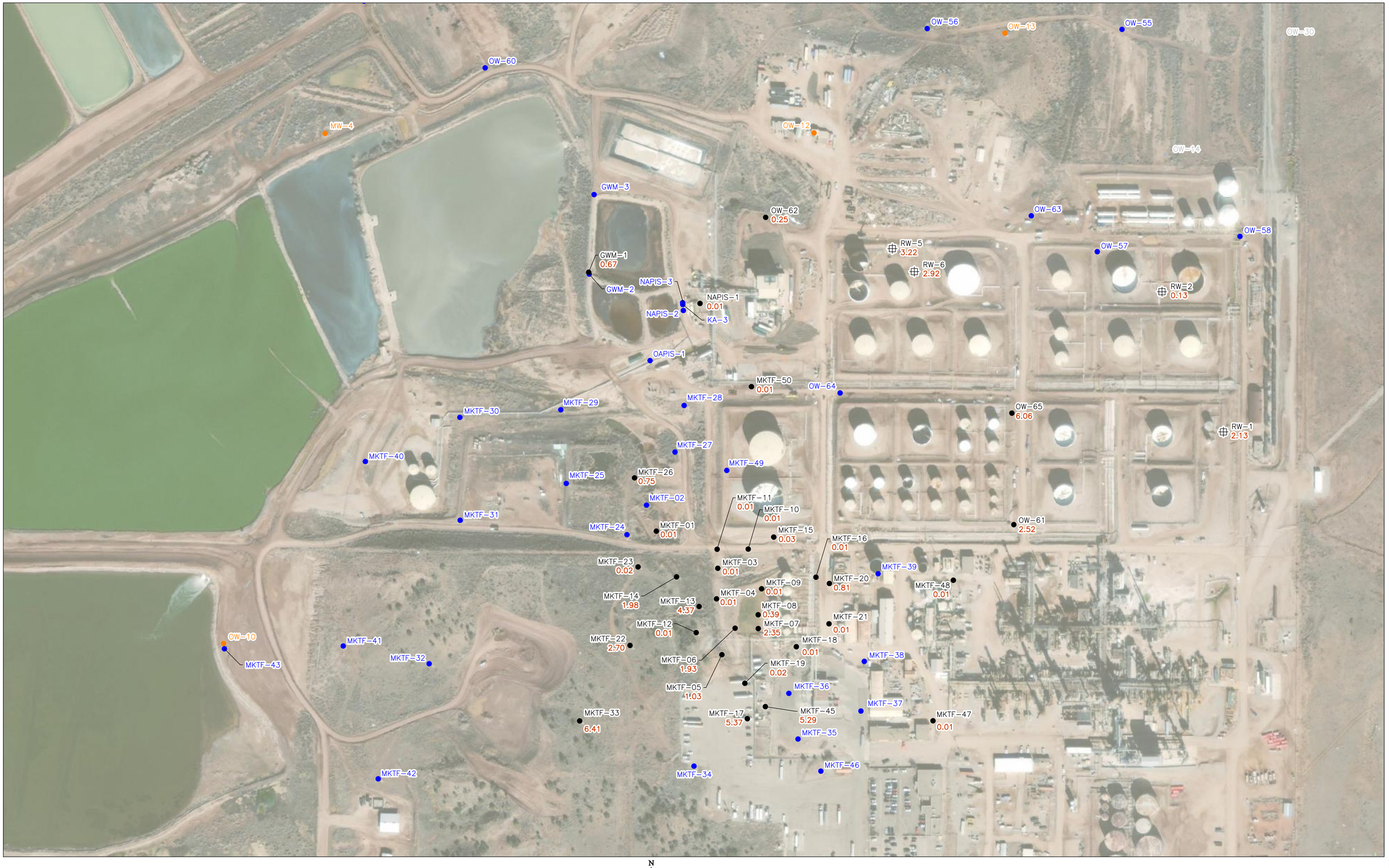
Notes:
Samples not collected during second quarter of 2020 due to the Covid-19 pandemic.
°C = Degrees Celsius
mg/L = Milligrams per liter
mV = Millivolts
umhos/cm = Micromhos per centimeter
Std = Standard
LTU - Land Treatment Unit
MKTF - Marketing Tank Farm
SWMU - Solid Waste Management Unit
WWT - Wastewater 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



EXPLANATION

- MKTF-06 6.57 — SPH MONITORING WELL AND DESIGNATION (SHOWING SPH THICKNESS IN FEET)
- MKTF-17 — CHINLE / ALLUVIUM INTERFACE 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 AND IS SHOWN ON VIEW 2.

Trihydro CORPORATION
1252 Commerce Drive
Laramie, Wyoming 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

FIGURE ES-1

SPH THICKNESS MAP (2020)
3RD QUARTER 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

\\TRIHYDRO.COM\CLIENTS\UTON\MARATHON\CADD\GALLUP_REPORTS\GW\ANNUAL REPORTS\2020_ANNUAL REPORT\697-G-GW_SPH-ISOCONT-202009

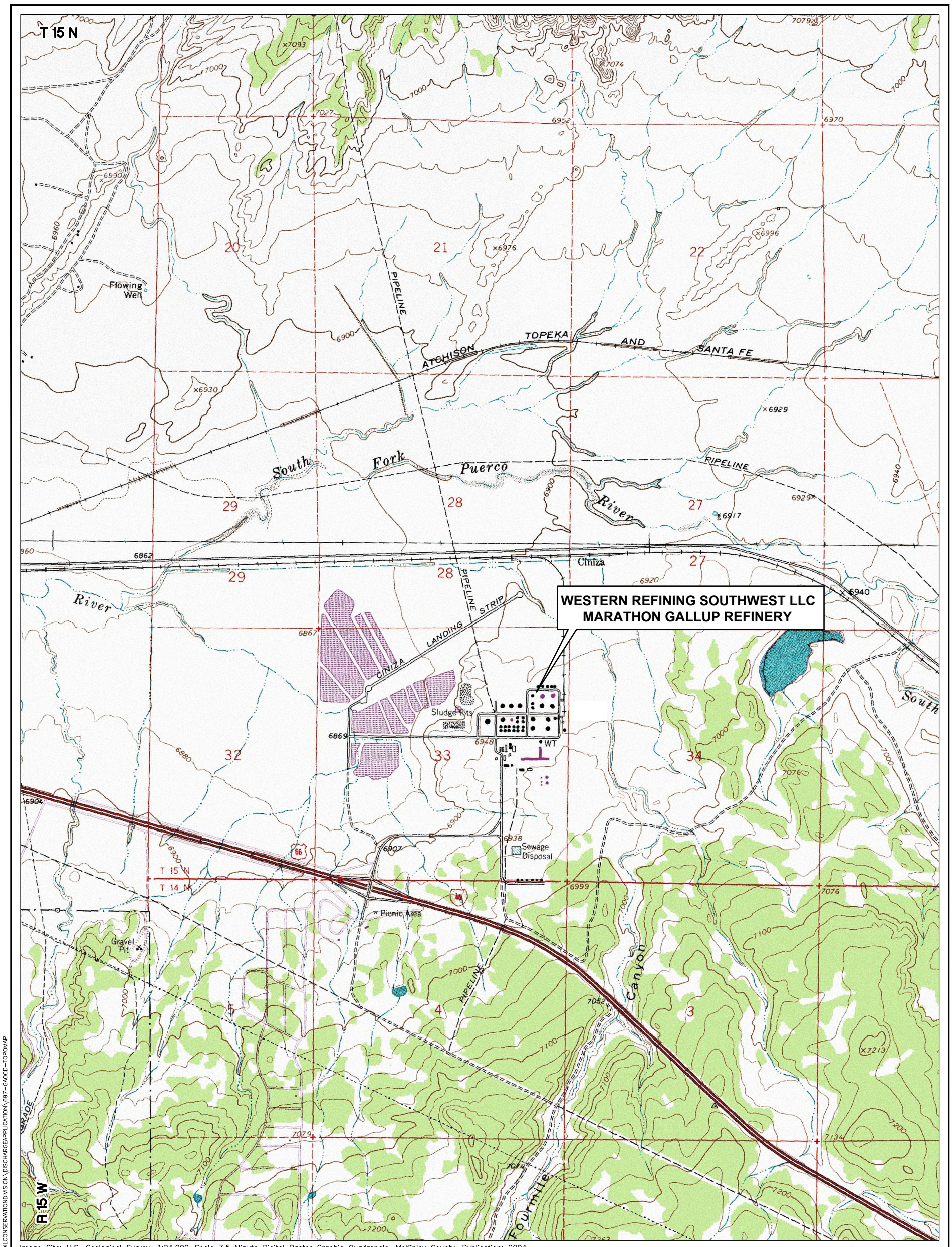
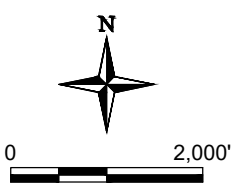


Image Cite: U.S. Geological Survey, 1:24,000–Scale 7.5 Minute Digital Raster Graphic Quadrangle, McKinley County, Publication: 2004

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

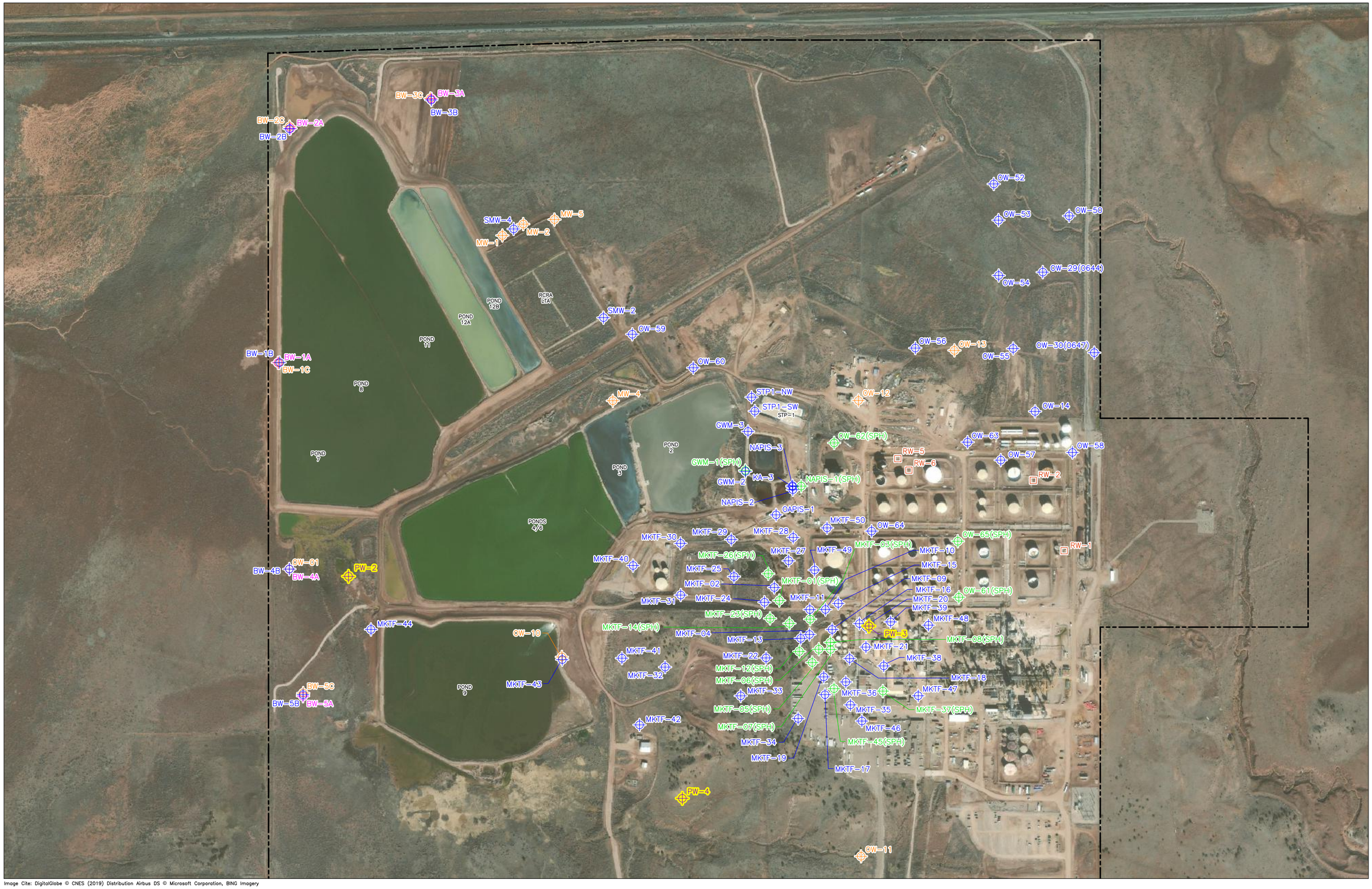


Image Cite: DigitalGlobe © CNES (2019) Distribution Airbus DS © Microsoft Corporation, BING Imagery

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

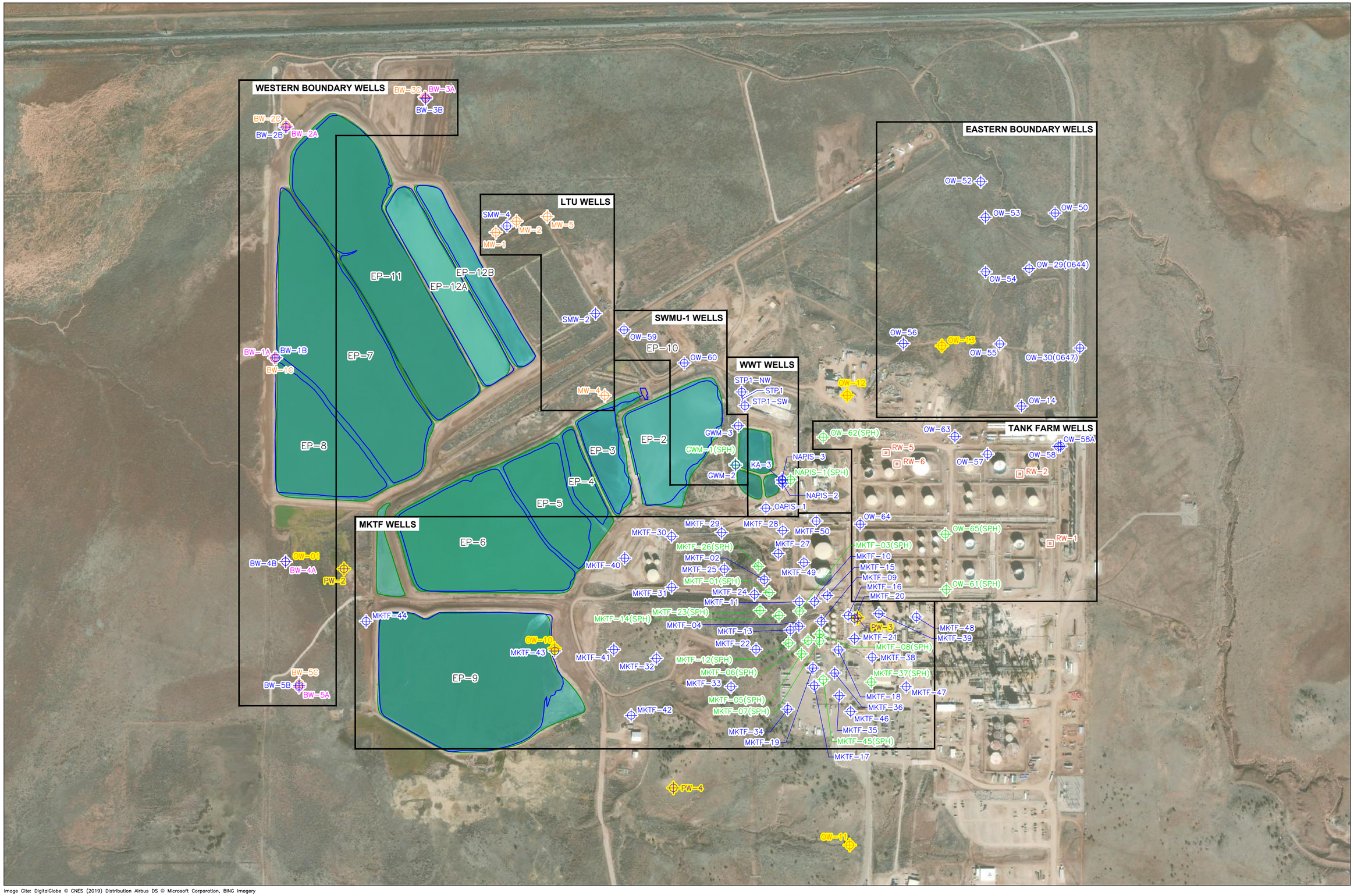


Image Cite: DigitalGlobe © CNES (2019) Distribution Airbus DS © Microsoft Corporation, BING Imagery

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\CADD\GALLUP_REPORTS\GW\WORKPLANS\2021_GW-WORKPLAN\697-GW-FACWELLGROUPS-2021

\\TRIHYDRO.COM\CLIENTS\ITON\MARATHON\CADD\GALLUP_REPORTS\GW\ANNUALREPORTS\2020_ANNUALREPORT\697-G-GW_PS-MAPALLUVIAL-202009

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'

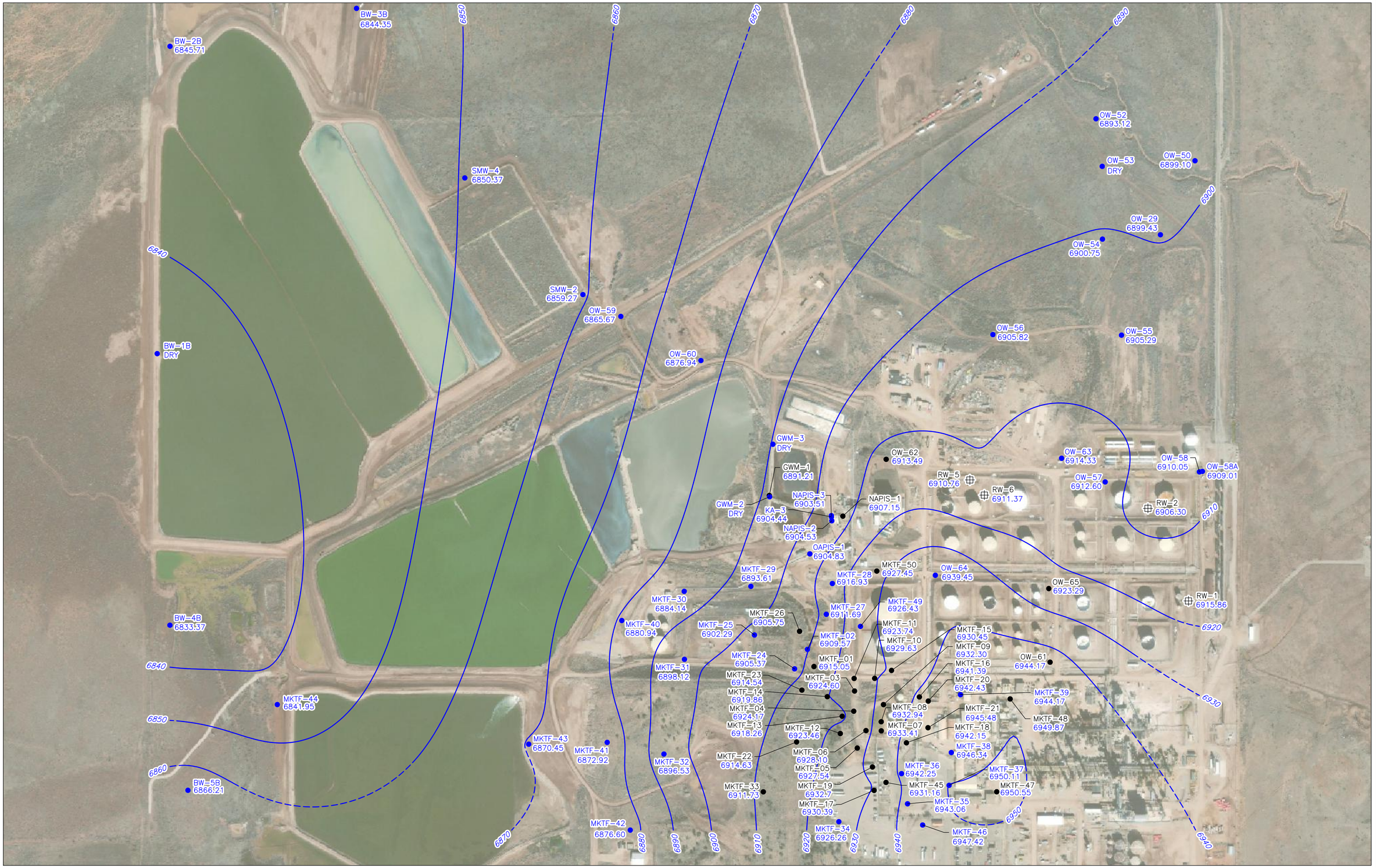
Trihydro CORPORATION
1252 Commerce Drive
Laramie, Wyoming 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

FIGURE 3-1

ALLUVIAL / FLUVIAL UPPER SAND AQUIFER GROUNDWATER ELEVATIONS MAP (2020)

**WESTERN REFINING SOUTHWEST LLC
MARATHON GALLUP REFINERY
GALLUP, NEW MEXICO**

Drawn By: SB	Checked By: CF	Scale: 1" = 400'	Date: 7/27/21	File: 697-G-GW_PS-MAPALLUVIAL-202009



EXPLANATION

- BW-5B 6866.21 — CHINLE / ALLUVIUM INTERFACE 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.

FIGURE 3-2

CHINLE/ALLUVIUM INTERFACE AQUIFER POTENTIOMETRIC SURFACE MAP (2020)

WESTERN REFINING SOUTHWEST LLC MARATHON GALLUP REFINERY GALLUP, NEW MEXICO

Trihydro CORPORATION
1252 Commerce Drive
Laramie, Wyoming 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

Drawn By: SB	Checked By: CF	Scale: 1" = 200'	Date: 8/17/2021	File: 697-G-GW_PS-MAPCHINLE-202009

\\TRIHYDRO.COM\CLIENTS\UTAH\MARATHON\GADS\GALLUP_REPORTS\GW\ANNUAL REPORTS\2020_ANNUAL REPORT\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

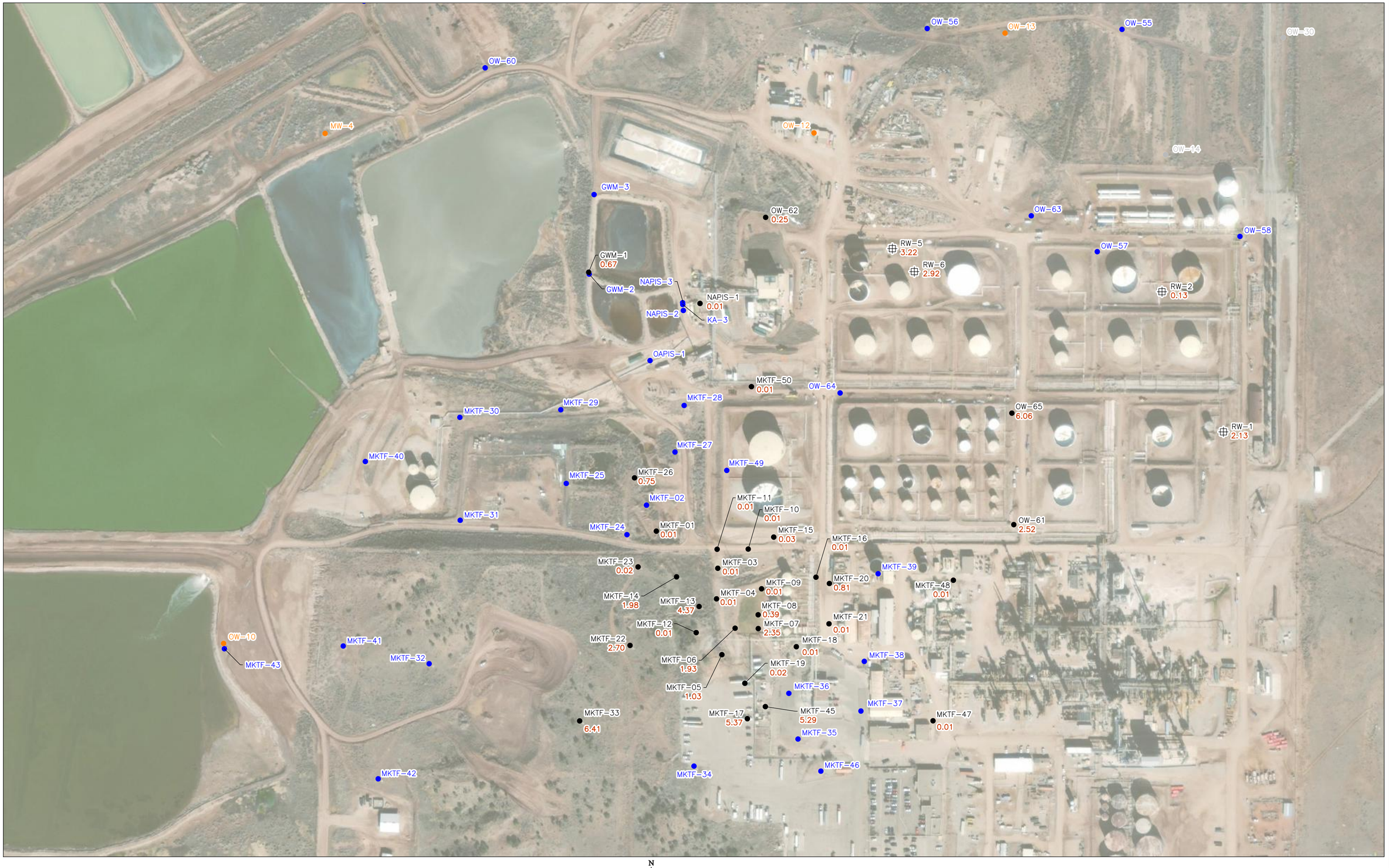
FIGURE 3-3

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



N

0 200'

EXPLANATION

- MKTF-06 6.57 — SPH MONITORING WELL AND DESIGNATION (SHOWING SPH THICKNESS IN FEET)
- MKTF-17 — CHINLE / ALLUVIUM INTERFACE 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 AND IS SHOWN ON VIEW 2.

Trihydro CORPORATION
1252 Commerce Drive
Laramie, Wyoming 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

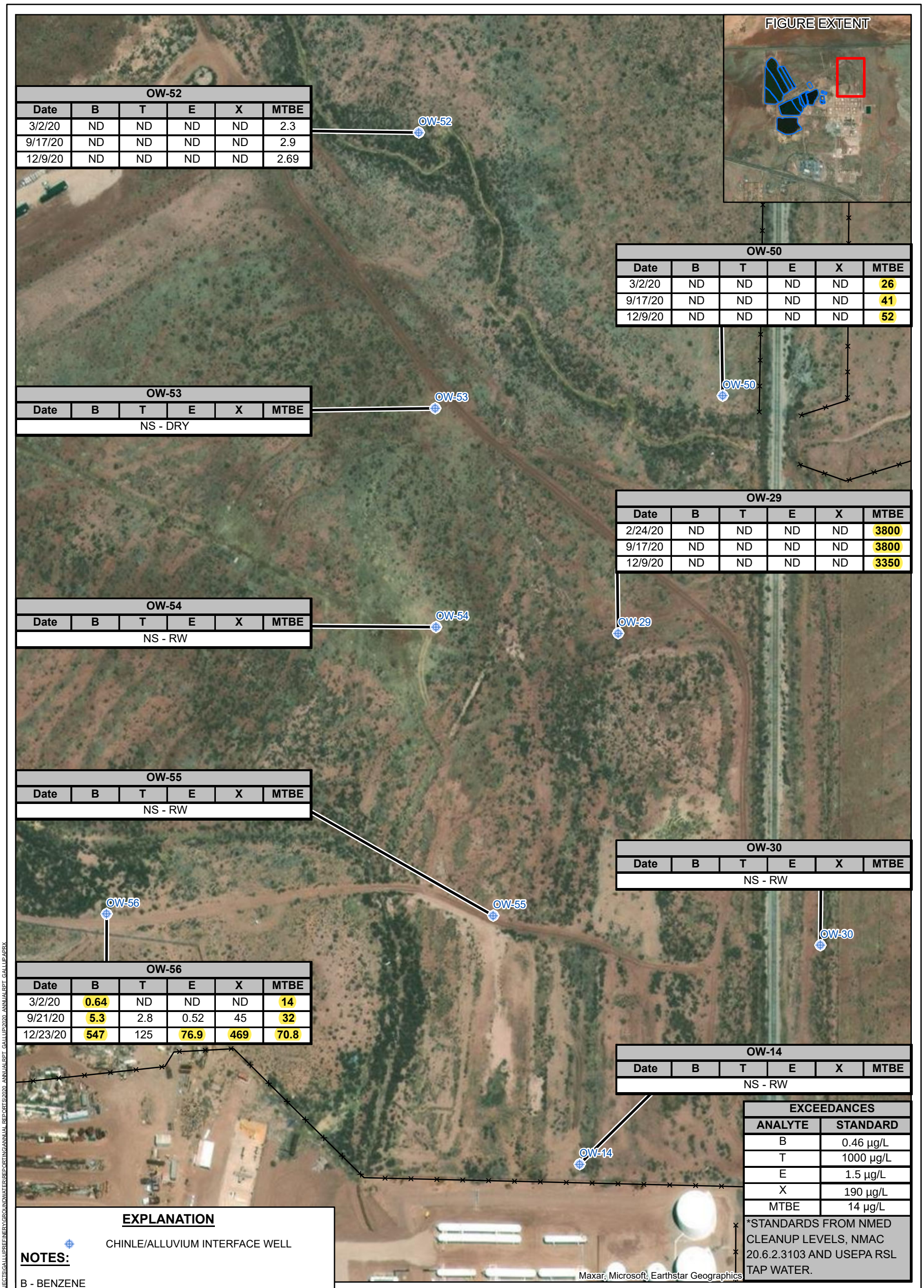
FIGURE 3-4

SPH THICKNESS MAP (2020)
3RD QUARTER 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

\\TRIHYDRO.COM\CLIENTS\UTON\MARATHON\CADD\GALLUP_REPORTS\GW\ANNUAL REPORTS\2020_ANNUAL REPORT\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

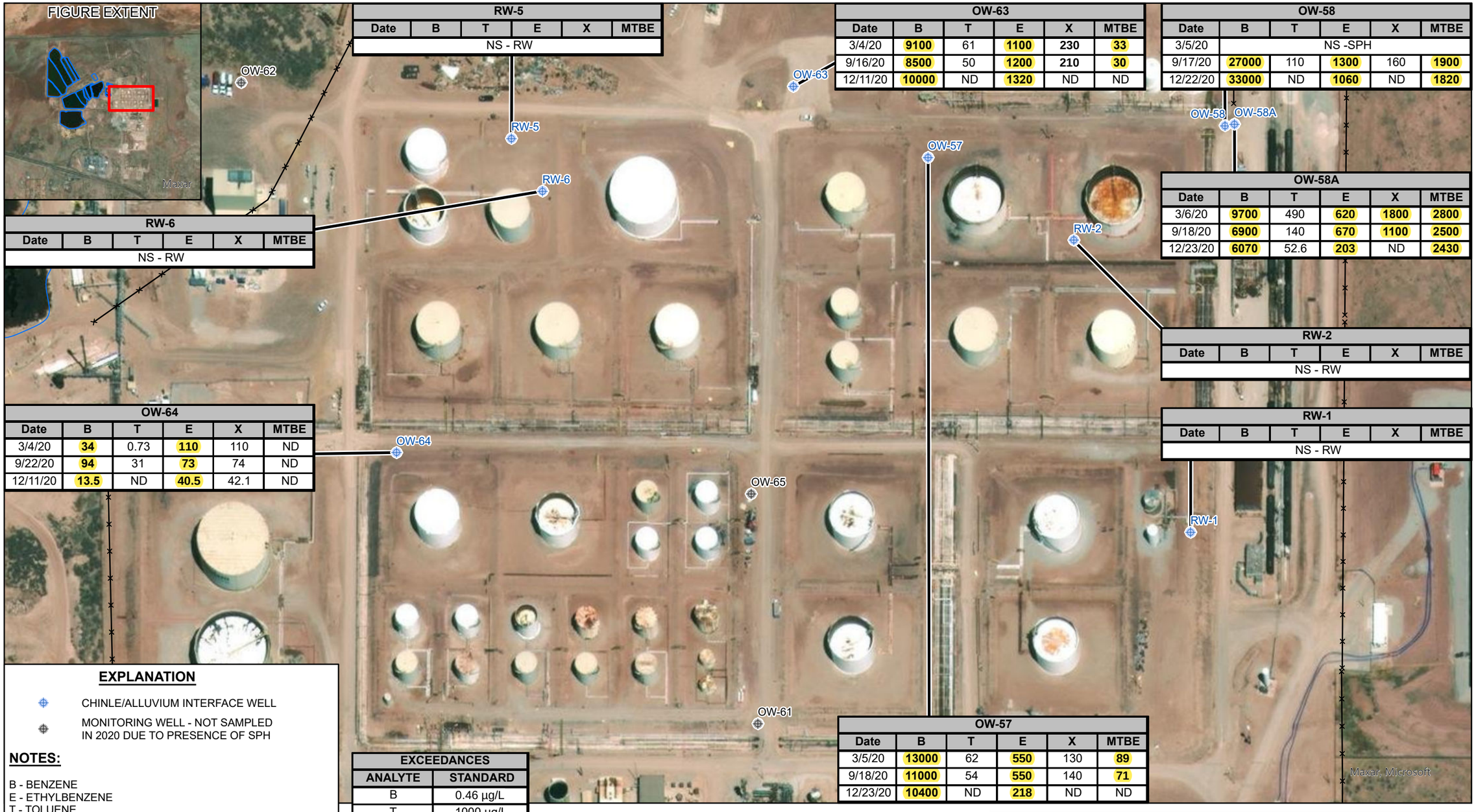
FIGURE 4-1

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_GALLUPAPRX



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

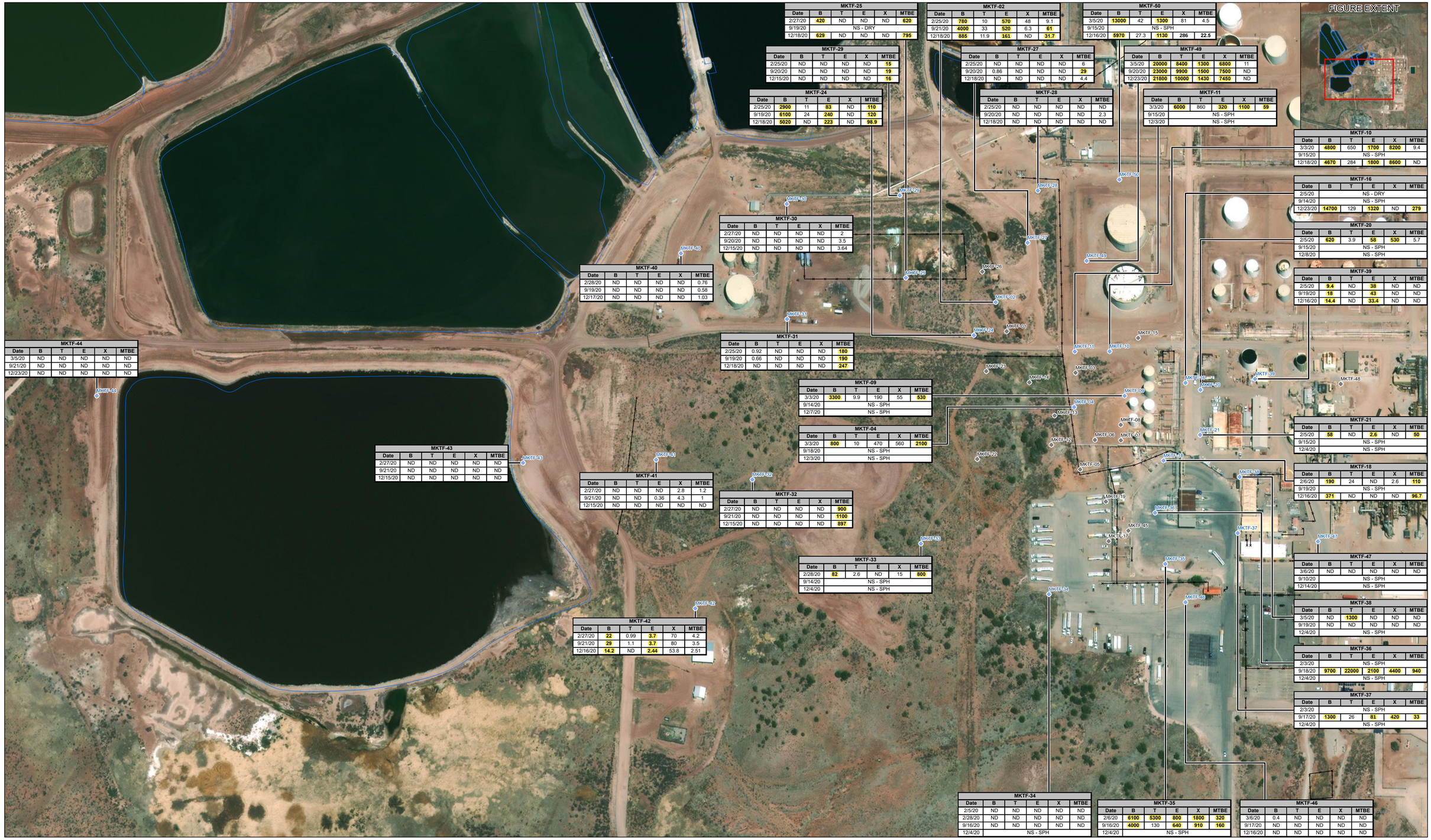
FIGURE 4-2

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\REFINERY\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-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-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-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-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-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				

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

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

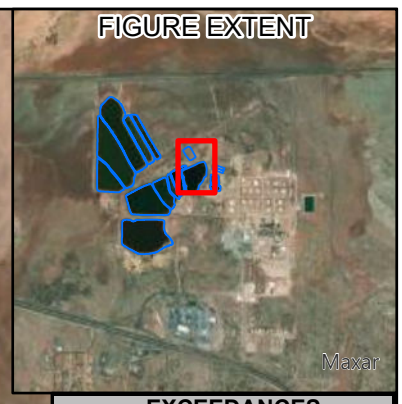
WESTERN REFINING SOUTHWEST LLC
MARATHON GALLUP REFINERY
GALLUP, NEW MEXICO

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

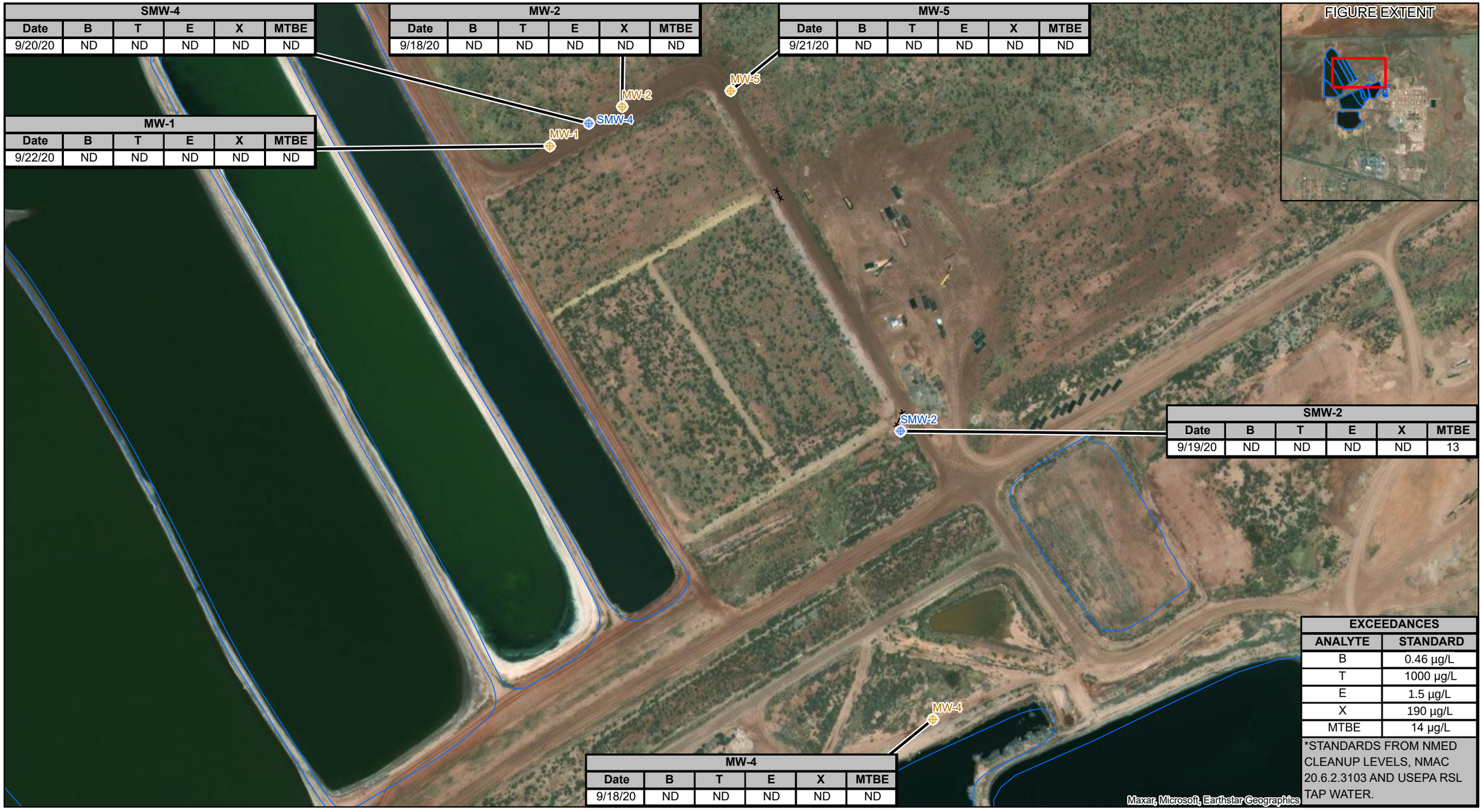
FIGURE 4-5

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



\\TRIHYDRO.COM\CLIENTS\TONMARATHON\GIS\PROJECTS\GALLUPREFINERY\GROUNDWATER\REPORTING\ANNUAL REPORTS\2020 ANNUAL RPT -GALLUP\2020_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'

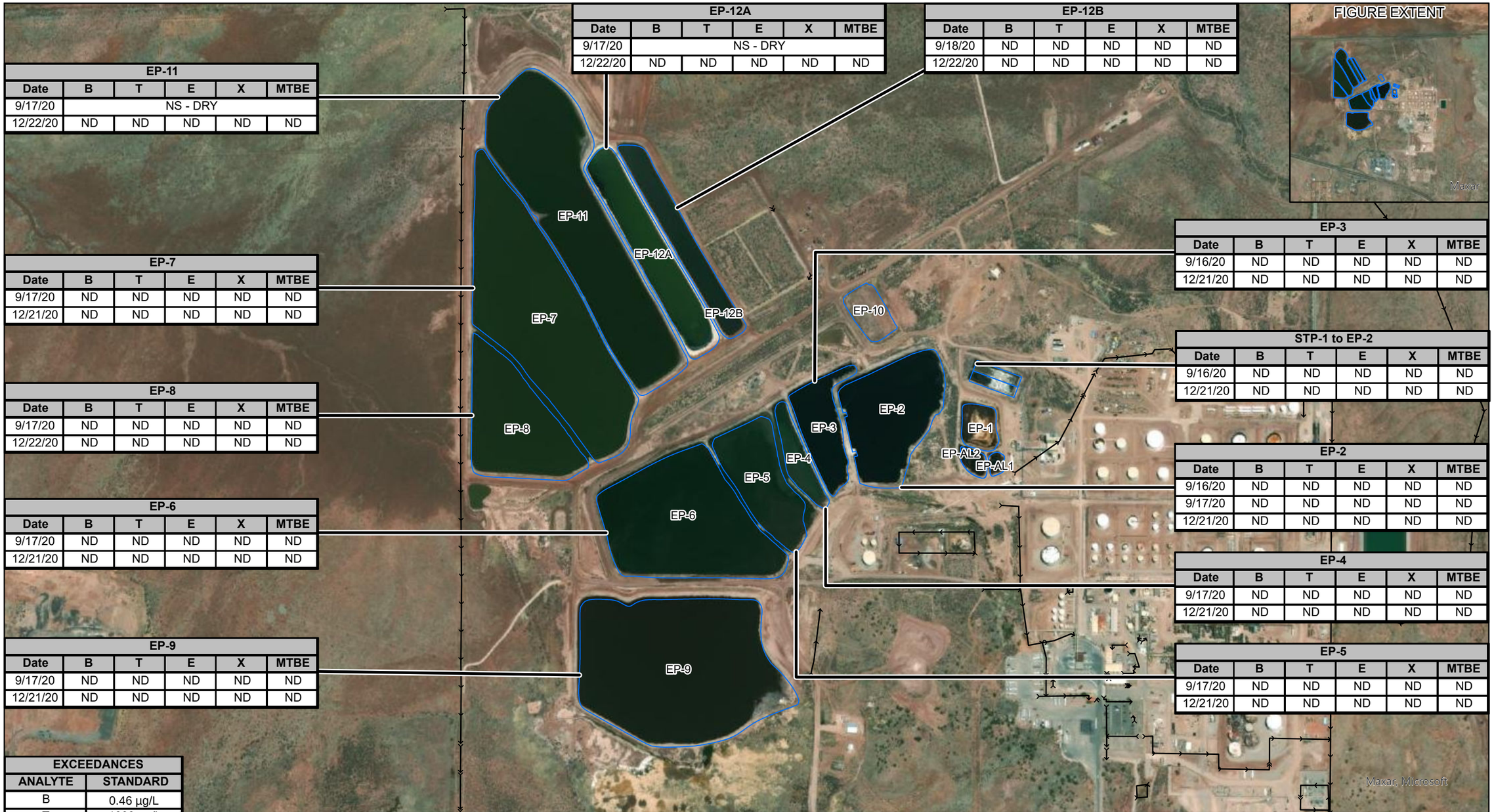
Trihydro CORPORATION
1252 Commerce Drive
Laramie, WY 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

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



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

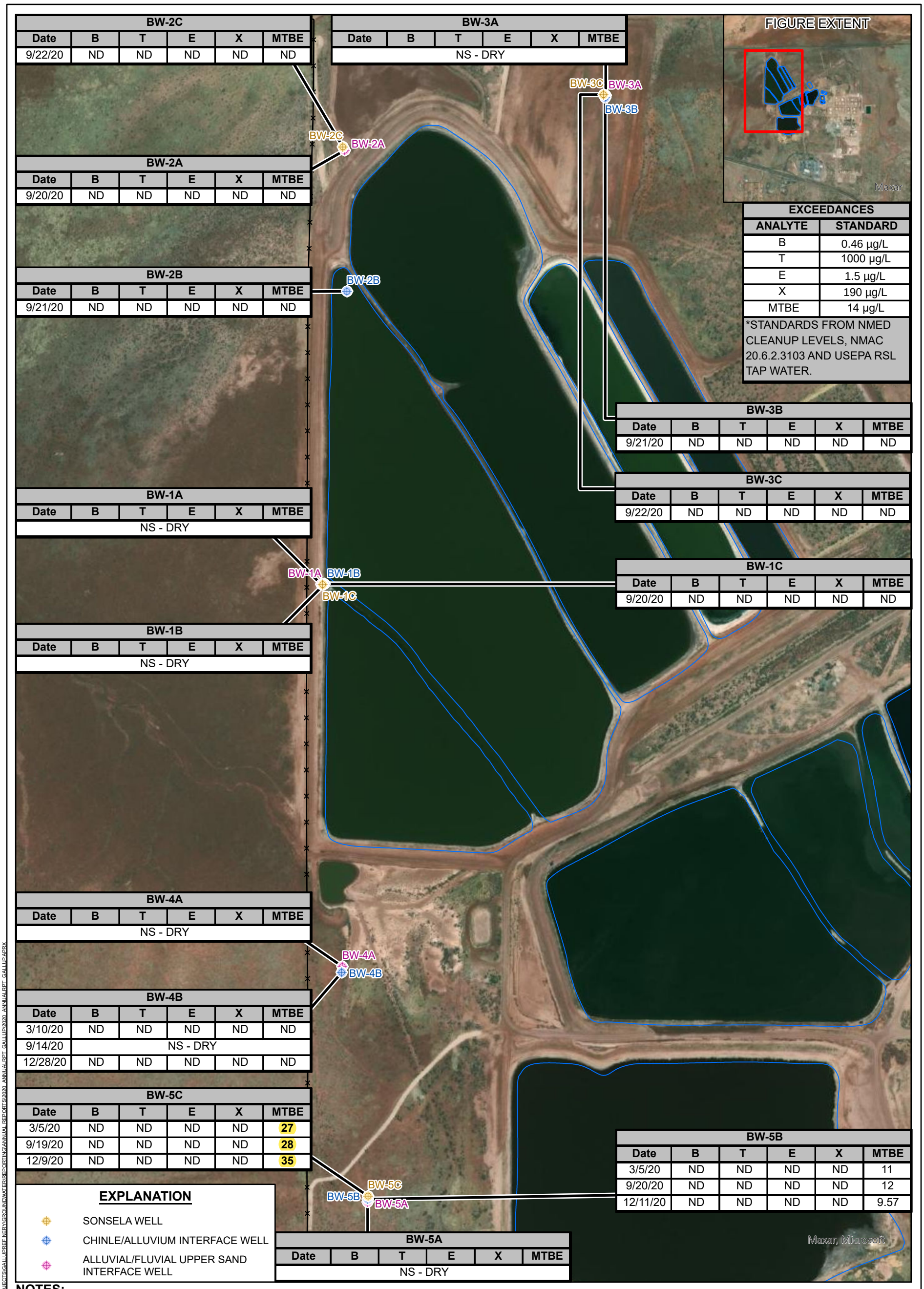
FIGURE 4-7

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\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

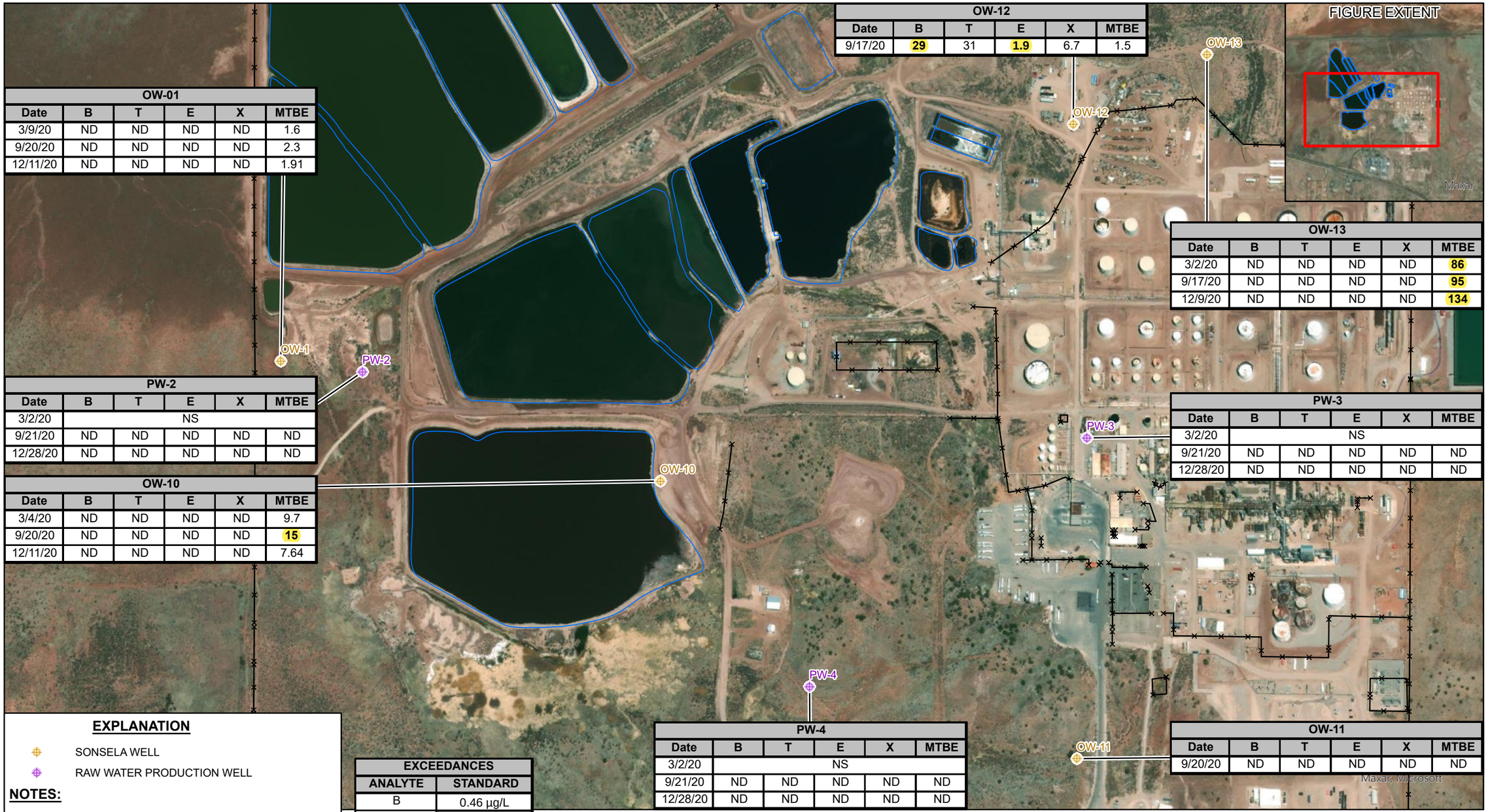
FIGURE 4-8

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\ITCN\MARATHON\GIS\PROJECTS\GALLUP\REFINERY\GROUNDWATER\REPORTING\ANNUAL REPORTS\2020 ANNUAL RPT_GALLUP2020 ANNUAL RPT_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\TON\MARATHON\GIS\PROJECTS\GALLUP\REF\KEY\GROUNDWATER\REPORTING\ANNUAL REPORTS\2020_ANNUAL RPT_GALLUP\2020_ANNUAL RPT_GALLUP.APRX

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

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 45949

CONDITIONS

Operator: Western Refining Southwest LLC 539 South Main Street Findlay, OH 45840	OGRID: 267595
	Action Number: 45949
	Action Type: [UF-DP] Discharge Permit (DISCHARGE PERMIT)

CONDITIONS

Created By	Condition	Condition Date
jburdine	Accepted for Record Retention Purposes-Only	11/22/2022