

**Western Refining Southwest LLC**

A subsidiary of Marathon Petroleum Corporation

I-40 Exit 39
Jamestown, NM 87347

March 15, 2023

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

**RE: Response to Approval with Modifications
Revised Investigation Work Plan No. 2 Area of Concern 35
Western Refining Southwest Inc., Marathon Gallup Refinery
EPA ID #NMD000333211
HWB-WRG-20-009**

Dear Mr. Pierard:

Attached please find the response to comments contained in the New Mexico Environment Department (NMED) disapproval letter dated December 12, 2022. The updated version of the *Revised Investigation Work Plan No. 2* (Work Plan) for Area of Concern (AOC) 35 is also attached.

A timeline of the Work Plan development is presented below:

- Investigation Work Plan, submitted August 2018
- Disapproval, received January 31, 2019
- Response to Disapproval, submitted July 26, 2019
- Approval with Modifications, received September 12, 2019

Following the September 2019 approval with modifications, a leak was discovered within AOC 35 in the pipeline just north of the truck loading rack. The Refinery proposed modifying the existing Work Plan based on the location of the discovered leak. The timeline for the revised Work Plan is as follows:

- Revised Investigation Work Plan, submitted February 27, 2020
- Disapproval, received August 31, 2020
- Response to Disapproval, submitted January 4, 2021
- Approval with Modifications, received February 11, 2021
- Response to Approval with Modifications, submitted April 14, 2021

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Following the February 2021 approval, a request was made to further modify the work plan due to the compilation of additional investigation results collected in the vicinity of AOC 35, primarily laser induced fluorescence (LIF). The LIF results provided additional information for the subsurface within AOC 35 and were reviewed to select appropriate locations for analytical sample collection. A timeline of the additional 2021 Work Plan revisions is as follows:

- Request for Extension, submitted August 3, 2021
- Extension Approval, received August 10, 2021
- Revised Investigation Work Plan, submitted August 31, 2021
- Disapproval, received October 20, 2021
- Response to Disapproval, submitted March 30, 2022
- Approval with Modifications, received December 12, 2022

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

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, Marathon Gallup Refinery

A handwritten signature in blue ink, appearing to read 'Timothy J. Peterkoski'.

Timothy J. Peterkoski

Director of Environment and Climate Strategy

Attachments

cc: L. Andress, NMED HWB	K. Luka, Marathon Petroleum Corporation
L. Barr, NMOCD	J. Moore, Marathon Gallup Refinery
L. King, EPA Region 6	H. Jones, Trihydro Corporation

ATTACHMENT A
RESPONSE TO COMMENTS

New Mexico Environment Department (NMED) to Western Southwest Refining LLC (Western) Comment Letter “Approval with Modifications, Revised Investigation Work Plan No. 2 Area of Concern 35” (December 12, 2022)

NMED General Comment	Western Response
Comment 1:	Response 1:
The list of acronyms has been significantly reduced from previous versions of the Work Plan and now omits several acronyms which are used in the current Work Plan. For example, the acronyms %RE (reference emitter) and TPH (total petroleum hydrocarbons) are used in the response to comments and the acronym FWT (fluorescent water tracer?) is used in the Work Plan. These are not included in the List of Acronyms provided on page 4 of the Work Plan. The Permittee must provide replacement pages that contain a complete list of the acronyms used in the Work.	The list of acronyms in the revised Work Plan has been updated to include all acronyms used in the report. Any acronyms used in the following response to comments has been defined in its first use. Acronyms used herein but not in the Work Plan are not included in the Work Plan’s List of Acronyms. Replacement pages have been provided.
Comment 2:	Response 2:
Executive Summary, last sentence of the fourth page states “[a]n investigation report regarding all the LIF [laser-induced fluorescence]/HP [hydraulic profiling] investigation data is currently scheduled to be submitted no later than October 31, 2021.” This report has already been submitted to NMED, revise the text accordingly and provide a replacement page.	The Executive Summary has been revised to state: “An investigation report regarding all the LIF/HP investigation data was submitted to NMED on November 1, 2021.
Comment 3:	Response 3:
The red-line strikeout version of the revised Work Plan provided in Appendix B, Redline Text, is not a true red-line. There are multiple instances where changes have been made to the revised Work Plan which are not noted in the red line text. A few examples which are not noted in the red-line are: A. The cover page does not indicate the change to a new date of WP in red-line. B. Appendix A is new to the March 2022 revised Work Plan, yet not noted in red-line in the Table of Contents as a change. C. The text in Section 2.6, October 2019 Underground Transfer Line Release and Laser-Induced Fluorescence Investigation, has been substantially changed, this is not indicated in the red-line. The Permittee must provide an accurate red-line reflecting all changes made to the revised Work Plan as a replacement for Appendix B.	A revised red-line document has been included as Appendix B. This includes all revisions made for this response to comments and previous comments.

New Mexico Environment Department (NMED) to Western Southwest Refining LLC (Western) Comment Letter “Approval with Modifications, Revised Investigation Work Plan No. 2 Area of Concern 35” (December 12, 2022)

NMED General Comment	Western Response
Comment 4: In response to the requested information in Disapproval Comment 1, the Permittee provided the information for three of the four items. The response did not provide the information for item number three; “...the products historically stored in the tanks that are currently detected as contaminants of concern (e.g., 1,2-dichloroethane?).” The Permittee must provide the information regarding products historically stored in the tanks and provide replacement page(s) for the approved Work Plan as necessary.	Response 4: The additive tanks contained proprietary additives owned by Western and other purchasers. Safety Data Sheets were reviewed for the additives historically stored in the tanks. Generally, chemicals included petroleum naphtha, petroleum distillates, trimethylbenzene (all isomers), and naphthalene. These analytes are similar to constituents found in a petroleum refinery.
Comment 5: NMED Disapproval Comment 2 states “Since the isoconcentration contour lines for the constituents (benzene and MTBE [methyl tert-butyl ether]) are not presented on the figures, the distribution of the constituents before and after the October 2019 gasoline release is not clearly depicted on the figures. Revise the figures to include the estimated isoconcentration contour lines for the constituents. In addition, the distribution of total petroleum hydrocarbons (TPH) before and after the release may also help demonstrate how the plumes have migrated and expanded. Include figures that present the distribution of TPH in the revised Work Plan.” The Permittee’s response states “...moving forward, the current depiction of concentrations in the area is more crucial in driving future investigation and remediation efforts. Therefore, the figures depicting concentrations before the 2019 gasoline release have been removed and all of the figures have been updated to depict the current status of constituent concentrations...” and “Given the interpretive inference required for creation of isoconcentration lines, especially in complex geologic formations, isoconcentration lines are included at this time.” The Permittee must include figures that depict the pre-October 2019 release constituent concentrations, including TPH, in the associated report to facilitate the comparison of the pre-release data to the newly collected data. The figures must list the concentrations detected in each of the samples for each sample location.	Response 5: Figures 4A through 6A have been added back into the revised Work Plan depicting the pre-October 2019 release constituent concentrations.

New Mexico Environment Department (NMED) to Western Southwest Refining LLC (Western) Comment Letter “Approval with Modifications, Revised Investigation Work Plan No. 2 Area of Concern 35” (December 12, 2022)

NMED General Comment	Western Response
Comment 6: Figure 4, Benzene Concentration Map (2021), Figure 5, MTBE Concentration (2021), and Figure 6, TPH Concentration Map (2021) of the Work Plan do not indicate specifically when the data represented on the figure were collected. At a minimum, the month(s) and year that the data was collected must be provided on the figures. The Permittee must revise the figure titles to identify the data presented as accurately as possible and provide replacement pages as necessary.	Response 6: Figures 4 through 6 have been revised to include the timeframe of when the data were collected. They are relabeled as Figures 4B through 6B and updated with the second quarter of 2022 data (the most recent validated data).
Comment 7: In response to Disapproval Comment 2 the Permittee states “...all of the figures have been updated to depict the current status of constituent concentrations and presence of separate phase hydrocarbons (SPH) based on the most recent (and validated) 2021 fluid level and groundwater sampling results.” Figure 6b for SPH Thickness is not included in the Work Plan, SPH thickness is relevant to the proposed investigation activities. The Permittee must include an updated Figure 6b and provide replacement pages as necessary. See Comment 6 above.	Response 7: Figures depicting the third quarter of 2019 and the second quarter of 2022 SPH thickness have been added to the work plan as Figures 7A and 7B, respectively.

New Mexico Environment Department (NMED) to Western Southwest Refining LLC (Western) Comment Letter “Approval with Modifications, Revised Investigation Work Plan No. 2 Area of Concern 35” (December 12, 2022)

NMED General Comment	Western Response
Comment 8: NMED Disapproval Comment 3 states “In Section 2.5 (Historical AOC 35 Investigations), page 10 of 18, paragraph 1, the Permittee states, “[t]he Refinery is indefinitely idled at this time and the sewer is currently not in operation and blocked off.” Since the sewer line is known to be leaking, the Permittee must repair or replace the sewer lines, where applicable, prior to resuming the refining operations. No revisions are required.” The Permittee’s response states “The refinery has repaired and replaced portions of the process sewer line in the vicinity of AOC 35 since the 2013 dye tests were conducted. To expand upon the current state of the process sewer lines in the vicinity of AOC 35, a limited scope investigation is tentatively proposed; a work plan containing addition background information, figures, and associated text regarding the process sewer lines will be submitted to NMED... Section 2.5 now references the proposed sewer investigation.” NMED requests that the investigation for the process sewer be removed from the AOC-35 Work Plan. The Permittee must provide NMED with a separate work plan focused solely on the process sewer no later than May 31, 2023 .	Response 8: This comment is acknowledged. A separate work plan regarding the process sewer in the vicinity of AOC 35 will be submitted to NMED no later than May 31, 2023.

New Mexico Environment Department (NMED) to Western Southwest Refining LLC (Western) Comment Letter “Approval with Modifications, Revised Investigation Work Plan No. 2 Area of Concern 35” (December 12, 2022)

NMED General Comment	Western Response
Comment 9: NMED Disapproval Comments 5, 7, 10, 11, 12, and 14 state that the locations of and depths of specific proposed borings must be changed to determine the vertical and horizontal extent of contamination. The Permittee’s response to NMED Disapproval Comment 5 states “[t]he intention of the proposed investigation is to correlate the %RE signals in soil, for the various identified product types/comingled plumes, with the analytical concentration for facility constituents of concern. Vertical delineation via soil sampling would not help accomplish the investigation objectives...” and “[i]t is proposed to continue with the investigation as originally intended by collected soil samples from depth intervals with various, corresponding, LIF %RE results.” Further, in response to NMED Comment 14 the Permittee states “[t]he goal [of this investigation] is to be able to correlate the LIF %RE with the analytical results so that the previously completed LIF investigation work can help to inform on possible constituent concentrations throughout the area.” NMED acknowledges the purpose of this investigation is not to delineate the vertical and horizontal extent of contamination, however, the vertical and horizontal delineation of contamination related to AOC-35 must be addressed in future work plans.	Response 9: This comment is acknowledged.

ATTACHMENT B
REDLINE TEXT
(PLEASE SEE ATTACHED CD)

Revised Investigation Work Plan No. 2

Area of Concern 35



Marathon Gallup Refinery
Western Refining Southwest, LLC
Gallup, New Mexico

EPA ID# NMD000333211

March 2022

Revised March 2023



MRLS Revised Investigation Work Plan No. 2

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- F. Investigation Derived Waste Management Plan

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List of Acronyms

%RE percent Reference Emitter

AOC Area of Concern

bgs below ground surface

BTEX benzene, toluene, ethylbenzene, xylenes

cm/sec centimeters per second

EPA Environmental Protection Agency

ft foot or feet

IDW investigation derived waste

~~LPLIF~~/HP laser-induced fluorescence/hydraulic profiling

MKTF marketing tank farm

~~mmohs/cm~~ ~~millimohs per centimeter~~

MTBE methyl tert butyl ether

NMED New Mexico Environment Department

NMOCD New Mexico Oil Conservation Division

SPH separate-phase hydrocarbon

TPH total petroleum hydrocarbons

UVOST ultra-violet optical screening tool

VOC volatile organic compound

AOC 35 Investigation Work Plan No. 2

Executive Summary

The Marathon Gallup Refinery (hereinafter referred to as “the Refinery”), which is located 17 miles east of Gallup, New Mexico, has been in operation since the 1950s. Pursuant to the terms and conditions of the facility Resource Conservation and Recovery Act Post-Closure Care Permit and 20.4.1.500 New Mexico Administrative Code, this Investigation Work Plan has been prepared for Area of Concern (AOC) 35. AOC 35 includes the main truck loading rack, crude slop and ethanol unloading facility, additive tank farm/loading rack, and the retail tank farm (also known as the marketing tank farm).

Historical groundwater sample results within and around AOC 35 have shown impacts from petroleum hydrocarbons. Investigative activities due to observed groundwater impacts were proposed in an AOC 35 investigation work plan originally dated August 2018; New Mexico Environment Department (NMED) approval was received in September 2019. Subsequent to preparation/approval of the initial investigation work plan, on October 27, 2019, a gasoline release was observed surfacing on the west side of the truck loading rack within AOC 35. The source of the release was determined to be an underground transfer line on the north side of the truck loading rack.

As a result of the gasoline release, the AOC 35 investigation work plan was modified to include additional soil boring locations. The modified work plan was submitted to NMED on February 27, 2020; NMED approval was received in February 2021.

Concurrently with development of the modified work plan, laser-induced fluorescence/hydraulic profiling (LIF/HP) events were scheduled and conducted at the Refinery in November 2019, February 2021, and May 2021. The LIF/HP events included numerous locations within, and hydraulically down-gradient, of AOC 35, greatly increasing the understanding of subsurface conditions in the area. A report pertaining to the November 2019 and February 2021 LIF/HP results was submitted to NMED on March 31, 2021. An investigation report regarding all the LIF/HP investigation data ~~is currently scheduled to be submitted no later than October 31, 2021~~ was submitted to NMED on November 1, 2021.

This investigation work plan seeks to supplant the originally proposed investigation activities to build upon the LIF/HP data collection efforts to bolster the understanding of subsurface conditions in the area and correlate the analytical results with the LIF/HP results. More specifically, the originally proposed soil investigation locations have been removed, and new locations, co-located with LIF/HP locations, have been proposed. The new locations were strategically chosen based on the LIF ultra-violet optical screening tool ~~(UVOST)~~ response data which identified the presence and location of multiple product types (i.e., gasoline, diesel, etc.) throughout and hydraulically down-gradient of AOC 35.

The soil samples will be analyzed for volatile organic compounds, semi-volatile organic compounds, total petroleum hydrocarbons, Skinner List metals, iron, manganese, and chloride.



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1.0 Introduction

The Marathon Gallup Refinery (the Refinery) is located approximately 17 miles east of Gallup, New Mexico along the north side of Interstate Highway I-40 in McKinley County. The physical address is I-40, Exit #39 Jamestown, New Mexico 87347. The Marathon Gallup Refinery is located on 810 acres.

Figure 1 presents the ~~refinery~~Refinery location and the regional vicinity.

The Refinery has been indefinitely idled since August 2020. Historically, the Refinery generally processed crude oil transported to the facility by pipeline or tanker truck. Various process units were operated at the facility, including crude distillation, reforming, fluidized catalytic cracking, alkylation, sulfur recovery, merox treater, and hydrotreating. Refinery operations have produced gasoline, diesel fuels, jet fuels, kerosene, propane, butane, and residual fuel.

This investigation work plan addresses the Area of Concern (AOC) 35, which includes the main truck loading rack, crude slop and ethanol unloading facility, additive tank farm loading rack, and the retail tank farm (Figure 2). The initial AOC 35 investigation work plan was provided to the New Mexico Environment Department (NMED) in August 2018 and approved by NMED in September 2019. The initial investigation work plan was subsequently revised following discovery of a leaky underground transfer line in the vicinity of the main truck loading rack (October 2019). The revised work plan was submitted to NMED in February 2020 and approved by NMED in February 2021. Concurrently with development of the revised work plan, laser-induced fluorescence/hydraulic profiling (LIF/HP) events were scheduled and conducted at the Refinery in November 2019, February 2021, and May 2021. Subsequently, based on the LIF/HP results, a request to further revise the AOC 35 investigation work plan was submitted to NMED on August 3, 2021 and approved by NMED on August 10, 2021.

Much of the information presented in this work plan aligns with the previously submitted, and NMED-approved, AOC 35 investigation work plans. However, where applicable, additional information from the LIF/HP investigations are included. The goal of this investigation is to collect additional data to augment the understanding of the subsurface conditions within and hydraulically down gradient of AOC 35 using the previously collected LIF/HP data as a guide.

The investigation activities will be conducted in accordance with Section IV.H.5 of the Post-Closure Care Permit and the procedures outlined in this work plan.



2.0 Background

This section presents background information for the area of ~~the refinery~~ Refinery property near AOC 35, including a review of historical waste management activities to help identify the following:

- Type and characteristics of waste and contaminants handled in the subject areas;
- Known and possible sources of contamination;
- History of operations; and
- Prior investigations.

2.1 Main Truck Loading Rack Area

The main truck loading rack is located in the southwestern area of the formerly active portion of the ~~refinery~~ Refinery property (Figure 2). The main loading racks cover an area approximately 100 feet (ft) by 120 ~~feet~~ and were used to load refined petroleum products (e.g., gasoline and diesel) into tanker trucks. The loading racks appear to have been in operation in this same location since at least 1962. There is no history of waste materials being handled at the loading racks.

Underground piping near the main loading racks include a sanitary sewer drain line running east to west, north of the loading rack, and oily water drain lines (process sewer lines) that run from the lab building to the loading rack and then continue to the north after picking up discharge from the loading rack sumps (Figure 2). The sumps were used to collect small spills on the loading rack concrete apron and de minimis volumes of product that drained from loading hoses.

There have been documented releases at the loading rack that were discovered and addressed at the time of the release, including notification to the appropriate regulatory agencies. On December 4, 2007, approximately 6,800 gallons of gasoline was spilled when a truck driver erroneously opened a valve on a tanker truck (Release Notification dated Dec. 7, 2007). On December 23, 2009, approximately 1,848 gallons of diesel fuel was spilled from a leaking underground pipeline at the west end of the loading rack (Release Notification dated Dec. 29, 2009).

2.2 Crude Slop and Ethanol Unloading Facility

This facility is located approximately 80 ~~feet~~ northwest of the main loading racks (Figure 2) and was used to unload recovered oil and transmix reclaimed from various locations within the ~~refinery~~ Refinery. The area was also used to unload ethanol delivered to the ~~refinery~~ Refinery via truck. It was originally put into service sometime before the 1990s. The unloading area is approximately 15 ~~feet~~ by 40 ~~feet~~ and includes a concrete pad and sump, overhead pipelines, and various connections to support unloading operations. The concrete pad and sump are connected to the process sewer.



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2.3 Additive Tank Farm Loading Rack

Petroleum product additives were stored in aboveground tanks at the additive tank farm loading rack (Figure 2). These additive tanks are small aboveground tanks located approximately 150 feet west of the main loading rack. The additive tanks were installed prior to 1997, but the exact date is uncertain. Only products (i.e., fuel additives), no wastes, were managed in this area; methyl tert butyl ether (MTBE) is not, and has not been, stored in these tanks. The additive tanks were taken out of service and cleaned during the 2020/2021 calendar years. There are no products stored in any additive tanks at this time. The only recorded release from the additive tanks is a 2 to 3 gallon Power Service brand diesel additive release in 2017. The safety data sheets for the diesel additive are provided as Appendix A.

2.4 Marketing Tank Farm

The marketing tank farm (MKTF) is located approximately 150 feet northwest of the main loading racks and includes Tanks 1 – 8, 912, 913, 1001, and 1002 (Figure 2). Retail petroleum products (e.g., gasoline, diesel, and biodiesel) were stored in these tanks, and MTBE was stored in Tank 6, prior to discontinuation of its use in 2006; ethanol was stored in Tank 6 after the use of MTBE was discontinued. The first tanks were constructed in 1963 and have had routine inspections both external and internal since construction. The MKTF tanks have been cleaned and emptied and remain in place.

The fuels were delivered to the marketing tanks via pipelines run primarily aboveground. Ethanol was unloaded at the adjacent ethanol unloading facility and transferred to Tanks 5 and 6 via aboveground lines. The fuels and additives were subsequently transferred to the main loading racks via aboveground and underground pipelines where they were loaded into tanker trucks.

There have been documented releases at the marketing tank farm primarily from overfilling of the tanks. Two examples include:

- On December 31, 2007, approximately 1,344 gallons (32 barrels) of ethanol was spilled when a pressure gauge on Tank 5 became loose and began leaking (Release Notification dated Jan. 2, 2008).
- On March 7, 2008, approximately 840 gallons (20 barrels) of diesel fuel was spilled during filling when the transfer pump did not switch off at the preselected level (Release Notification dated March 10, 2008).

2.5 Historical AOC 35 Investigations

The earliest investigation in the area is referenced in Comprehensive Facility Investigation Work Plan that was prepared for the New Mexico Oil Conservation Division (NMOCD) in June 1997 (Giant Refining Company, 1997). The work plan references “groundwater impact area #4” as being in the vicinity of the truck loading rack. It is stated that the source of the impact was a spill of hydrocarbon that occurred in the early 1980s. The area is further described as having residual hydrocarbons present at low levels and



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declining through natural biodegradation. No quantitative information could be located to substantiate the description of the conditions provided in the 1997 work plan.

As part of the 2013/2014 interim measures to address a hydrocarbon seep area located to the northwest of the main loading racks (Figure 2), 44 new monitoring wells were installed near the loading racks (DiSorbo, 2016). These wells are identified by "MKTF" in the monitoring well name (MKTF-1 through MKTF-44). In addition, during the 2013 field reconnaissance process to locate potential drilling locations near the main loading racks, an unidentified well was located to the west of the main loading racks, it was subsequently named MKTF-45. Figures 3A and 3B depicts the location of numerous monitoring wells (MKTF designation) in and around AOC 35 as well as fluid level elevations and a potentiometric surface map for the third quarter of 2019 and second quarter of 2022, respectively. Fluid level data are provided in Appendix B. These wells are primarily screened across the contact of the Chinle Group (Petrified Forest Formation) that forms an aquitard and the overlying alluvial/fluvial deposits (Quaternary Alluvium) (more geological information provided in Section 3).

Groundwater samples collected from the MKTF wells have shown the presence of petroleum hydrocarbons, including benzene, toluene, ethylbenzene, and xylene (BTEX) and related constituents (e.g., MTBE) at concentrations above screening levels (Appendix C). The distribution of these constituents' benzene and MTBE as well as total petroleum hydrocarbon (TPH), as shown on Figures 4A through 6B, likely indicate a source of groundwater contamination from within AOC 35 ("A" and "B" in figure titles indicate before and after discovery of the leaking transfer line, respectively). Additional information pertaining to the distribution of separate phase hydrocarbon (SPH) within this area is presented in the March 31, 2021 LIF/HP report (Trihydro, 2021). Historical BTEX, MTBE, and TPH results for the MKTF wells are provided in Appendix C.

~~The process sewer (oily water) drain lines that are present in the area (Figure 2) were also evaluated in the past to determine if they could be leaking. On July 8, 2013, one pint of fluorescent FWT red dye was poured into a sump/drain at the second bay from the south end at the truck loading rack. After several minutes the red dye was observed in the sewer box located on the west side of the bundle cleaning pad, confirming the flow of the drain from the truck rack to the north in the main process sewer pipeline.~~

~~Subsequently, a second pint of FWT red dye was added to the sewer box on the west side of the bundle pad. Excavations at the previously identified hydrocarbon seep area (located west of the crude tanks) were inspected each day after addition of the dye and on the 8th day, July 16, 2018, red dye was identified in one of the excavations. The dye was not initially detected in the soil borings/temporary wells located south the hydrocarbon seep and west of the marketing tanks, but only in the area where the seep was identified. During a later fluid gauging event on August 14, 2018, dye was observed in MKTF-03 and MKTF-10. The presence of dye in groundwater in the area of the seep was interpreted as indicating a likely release from the sewer system and a possible preferential migration pathway to the northwest.~~

~~Following the results of the July 2013 dye test, two additional dye tests were conducted in the process sewer system. On September 23, 2013, one pint of a yellow/green dye (Spectroline Oil-Glo 44G~~



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Fluorescent yellow/green) introduced into the sewer at the Crude Slop and Ethanol Unloading area. On September 24, 2013, one pint of a FWT red dye was introduced at the lab sinks. On September 25, 2013, green dye was detected at the hydrocarbon seep. A fluid level gauging event was conducted at the MKTF monitoring wells on September 26, 2013; the red dye was identified in five of the temporary wells [SB01 (MKTF-03), SB02, SB16 (MKTF-10), SB17 (MKTF-11), and SB22 (MKTF-14)], all of which are located just south of the road that runs east-west along the north side of the marketing tanks. The green/yellow dye appeared to be present in nine locations [SB04, SB05, SB06 (MKTF-05), SB08 (MKTF-06), SB10 closer to the crude slop and ethanol unloading area. Although the dye tests were not conclusive, the separate patterns of the two dyes suggest the possibility of two separate release points from the sewer line.

Since the 2013 dye tests, repair work and installation of additional process sewer lines has occurred in the vicinity of AOC 35. In 2019, the main oily sewer lines near the marketing tank farm were visually inspected using a camera and were generally determined to be in relatively good condition with no obvious breaks. Smaller lines were not inspected so the condition of those lines is unknown. The Refinery is indefinitely idled at this time and the sewer is currently not in operation and blocked off. A limited scope investigation is tentatively proposed to investigate the current status of the process sewer system in this area; work plan to be submitted by May 31, 2022.

2.6 October 2019 Underground Transfer Line Release and Laser-Induced Fluorescence Investigation

On October 27, 2019 an area of soil staining and surfaced product was observed to the west of the Truck loading rack in a stormwater drainage ditch. Investigation efforts identified an underground product transfer line leaking gasoline on the north side of the Truck loading rack (Figure 7). As part of the initial spill response efforts, the pipeline was taken out of service, an earthen berm was placed to stop flow in the stormwater ditch, and fluids present in the ditch were recovered. The spill and spill response were reported on November 7, 2019 to NMED and NMOCDC via Form C-141, a copy of which is included in Appendix D.

After the release was identified, fluid levels were checked in nearby monitoring wells to determine if the gasoline (expressed as ~~separate-phase hydrocarbon~~ [SPH]) was present. Figures depicting the SPH thicknesses prior to the release and most recently are included as Figures 7A and 7B, showing the October 2019 and second quarter 2022 measurements, respectively. All measurements through ~~June 2021~~ fourth quarter 2022 are provided in Appendix B; fluid level measurements around AOC 35 are currently recorded on a monthly basis. These measurements show SPH appearing for the first time in wells MKTF-13 on January 15, 2020, MKTF-17 on November 19, 2019, MKTF-19 on December 2, 2019. In addition, significant increases in the measured thickness of SPH occurred in wells MKTF-05 on November 13, 2019, MKTF-06 on December 2, 2019, MKTF-07 on December 19, 2019, MKTF-36 on November 6, 2019, and MKTF-45 on October 31, 2019.

To further investigate the extent of the gasoline release an LIF/HP event was conducted in November 2019 consisting of 18 locations within and immediately downgradient (to the west) of AOC 35. The

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ultraviolet optical screening tool (UVOST) used during the November 2019 LIF/HP event identified multiple product signatures (i.e., gasoline, diesel, and naphtha) and some degree of impacts at all 18 locations. After review of the LIF/HP results, the subsurface investigation was expanded in February 2021 with the addition of 37 LIF/HP locations around the peripheral of AOC 35 (north, south, and west), primarily in the direction of groundwater migration (west). Some additional LIF/HP locations were also added in the vicinity of AOC 35 in May 2021 to further bound the observed extent of impacts. The LIF/HP investigation locations and observed product signatures are depicted on Figure 78. Results from the November 2019 and February 2021 LIF/HP investigations were submitted to NMED in a report dated March 31, 2021, titled *Marketing Tank Farm Laser-Induced Fluorescence/Hydraulic Profiling Investigation Report* (MKTF LIF Report). The LIF/HP results collected in May 2021 included step-out locations to further bound results presented in the MKTF LIF Report as well as additional locations outside of the MKTF area. Locations within the MKTF area, from the May 2021 LIF/HP investigation, were presented in November 2021 as an addendum to the MKTF LIF Report. LIF/HP locations outside of the MKTF area were included in the October 27, 2021 report titled *Tank 570 Release and Additional Areas LIF/HP Investigation Report*.



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3.0 Site Conditions

3.1 Surface Conditions

Site topographic features include high ground in the southeast gradually decreasing to a lowland fluvial plain to the northwest. Elevations on the ~~refinery~~Refinery property range from 7,040 ~~feet (ft)~~ to 6,860 ~~feet (ft)~~. Surface soils within most of the area of investigation are primarily Rehobeth silty clay loam. Rehobeth soil properties include a pH ranging from 8 to 9 standard units and salinity naturally occurring and typically measuring up to approximately 8 ~~millimhos per centimeter (mmhos/cm)~~.

The site is located in the Puerco River Valley, north of the Zuni Uplift with overland flows directed northward to the tributaries of the Puerco River. The Puerco River continues to the west to the confluence with the Little Colorado River. The South Fork of the Puerco River is intermittent and retains flow only during and immediately following precipitation events. Additional regional surface water features include the ~~refinery~~Refinery evaporation ponds.

3.2 Subsurface Conditions

The shallow subsurface soils consist of fluvial and alluvial deposits comprised of clay and silt 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, which is Upper Triassic, 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 and the Sonsela Sandstone Bed is the uppermost recognized regional aquifer. Aquifer test of the Sonsela Bed northeast of Prewitt indicated a transmissivity of greater than 100 ~~square ft~~²/day (Stone and others, 1983). The Sonsela Sandstone's highest point occurs southeast of the site and slopes downward to the northwest as it passes under the ~~refinery~~Refinery. The Sonsela Sandstone forms a water-bearing reservoir with artesian conditions throughout the central and western portions of the ~~refinery~~Refinery property.

The diverse properties and complex irregular stratigraphy of the surface soils across the site cause a wide range of hydraulic conductivity ranging from less than 10⁻² ~~centimeters per second (cm/sec)~~ for gravel like sands immediately overlying the Petrified Forest Formation to 10⁻⁸ cm/sec in the clay soils located near the surface (Western, 2009). Generally, shallow groundwater at the ~~refinery~~Refinery follows the upper contact of the Petrified Forest Formation with prevailing flow from the southeast to the northwest, although localized areas may have varying flow directions (Figures ~~3A and 3B~~). Fluid level measurements for wells in the area of AOC 35 are included in Appendix B.



4.0 Scope of Services

This investigation will be conducted to further characterize the subsurface soil within and downgradient of AOC 35 by supporting the LIF/HP investigation results with analytical results. Locations were strategically selected based on product signatures identified during the LIF/HP investigation, vertical extent of impacts at the identified locations, and the magnitude of the LIF percent reference emitter (%RE). If possible, a correlation will be created between the analytical results and individual UVOST signatures. The investigation will commence upon approval of this Investigation Work Plan by NMED, pending availability of direct push drilling equipment/operators.

4.1 AOC 35 Investigation

Out of the November 2019, February 2021, and May 2021 LIF/HP investigation locations in the vicinity of AOC 35, detailed in Section 2.6 and depicted on Figure ~~78~~, 10 locations have been selected for screening and sampling (Figure ~~89~~). The 10 locations were selected based on their UVOST signatures as well as their geographic location. The selected locations will provide two analytical data sets for each of the identified product types within AOC 35 (i.e., gasoline, diesel, and comingled gasoline/diesel), two analytical data sets for locations at the western edge of identified impacts, and two analytical data sets for locations with residual/no UVOST response. The locations listed below were selected for screening and sampling based on the UVOST waveform results, the total depth of the borings are provided in parentheses:

- Diesel signatures
 - MKTF-LIF-47 - (31.20 ft-bgs [below ground surface])
 - Diesel signature from 4 to 15 ft-bgs
 - MKTF-LIF-66 - (18.58 ft-bgs)
- Gasoline signatures
 - MKTF-LIF-37 - (29.24 ft-bgs)
 - MKTF-LIF-42 - (31.51 ft-bgs)
- Gasoline/diesel mixture signatures
 - MKTF-LIF-46 - (34.66 ft-bgs)
 - MKTF-LIF-47 - (31.20 ft-bgs)
 - Gasoline/diesel mixture signature from 20 to 32 ft-bgs

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- Western edge of identified impacts
 - MKTF-LIF-62 - (34.76 ft-bgs)
 - MKTF-LIF-74 - (21.33 ft-bgs)
- Residual/no UVOST response
 - MKTF-LIF-71 - (25.29 ft-bgs)
 - MKTF-LIF-78 - (29.29 ft-bgs)

The LIF/HP depth will be utilized to determine the target depth for each co-located sample location; specifics regarding the soil screening and sampling intervals are provided in Section 4.2. The UVOST boring logs for the 10 selected LIF/HP locations are provide in Appendix E.

In addition to the proposed screening/sampling, an effort will be made to determine the screened interval of monitoring well MKTF-45 (Figure 89). As detailed in Section 2.5, MKTF-45 was discovered in the vicinity of the main truck loading rack (~160 feet southwest) in 2013, however, a detailed construction log for this well was never discovered. A down hole camera will be deployed at this location in an attempt to determine the screened interval.

4.2 Soil Sample Field Screening, Sampling, and Logging

The soil borings may be completed via hand augers or a geo-probe direct push rig; macrocore will be used for shallow intervals, dual tube will be used for deeper intervals. Alternatively, hollow-stem augers may be used instead. The drilling equipment will be properly decontaminated before drilling each boring. The NMED will be notified as early as practicable if conditions arise or are encountered that do not allow the advancement of borings to the specified depths or at planned sampling locations.

Soil cores and associated samples will be screened in the field on 3.0-foot intervals for evidence of contaminants. Field screening results will be recorded on the exploratory boring logs. The primary screening methods include: (1) visual examination, (2) olfactory examination, and (3) headspace vapor screening for volatile organic compounds (VOCs).

Visual screening includes examination of soil samples for evidence of staining caused by petroleum-related compounds or other substances that may cause staining of natural soils. Headspace vapor screening targets volatile organic compounds and involves placing a soil sample in a plastic sample bag allowing space for ambient air. The container will be sealed and then shaken gently to expose the soil to the air trapped in the container. The sealed container will be allowed to rest while vapors equilibrate. Vapors present within the sample bag's headspace will then be measured by inserting the probe of the instrument in a small opening in the bag. The maximum value and the ambient air temperature will be recorded on the field boring or test pit log for each interval. Note that if samples are cold (i.e., below 32 degrees Fahrenheit) they will be sealed in airtight bags and warmed in a heated building and/or vehicle before screening.

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The monitoring instruments will be calibrated each day to the manufacturer's standard for instrument operation. A photoionization detector (PID) equipped with a 10.6 or higher electron volt (~~eV~~) lamp or a combustible gas indicator may be used for VOC field screening. Field screening results may be site- and boring-specific and the results may vary with instrument type. The media screened, weather conditions, moisture content, soil type, and type of contaminant, will be recorded on the field logs.

For locations with observed impacts on the UVOST boring log, discrete soil samples will be collected from each boring for laboratory analyses every 3 ~~feet~~ until reaching the final depth of the corresponding LIF/HP borehole. For locations with residual/no UVOST response, soil samples will be collected every 6 ~~feet~~ until reaching final depth of the corresponding LIF/HP borehole. Additional samples, beyond the planned interval sampling, will be collected if unexpected results are observed during the field screening process (e.g., elevated PID/flame ionization detector~~FID~~ readings above expectations or stained/malodorous soil at intervals with no/low %RE). The physical characteristics of the samples (such as mineralogy, ASTM soil classification, moisture content, texture, color, presence of stains or odors, and/or field screening results), depth where each sample was obtained, method of sample collection, and other observations will be recorded in the field log by a qualified geologist. Additional information, such as the presence of water-bearing zones and any unusual or noticeable conditions encountered during drilling, will also be recorded on the logs.

Quality Assurance/Quality Control samples will be collected to monitor the validity of the soil sample collection procedures as follows:

- Field duplicates will be collected at a rate of 10 percent of the overall samples
- Equipment blanks will be collected at a frequency of one per day

4.2.1 Sample Handling

At a minimum, the following procedures will be used at all times when collecting and screening samples:

1. New disposable nitrile gloves will be used to collect each sample.
2. Samples will be transferred from the sample retrieval device (e.g., macrocore, dual tube, split-spoon, hand auger, etc.) directly into clean sample containers supplied by the project analytical laboratory and/or clean field screening containers (e.g., Ziplock® baggies). Sample container volumes and preservation methods will be in accordance with the most recent standard Environmental Protection Agency (EPA) and industry accepted practices for use by accredited analytical laboratories. Sufficient sample volume will be collected for the laboratory to complete the method-specific quality control~~QC~~ analyses on a laboratory-batch basis.
3. Sample labels and documentation will be completed as each sample is collected. Immediately after the samples are collected, they will be stored in a cooler with ice, or other appropriate storage method, until they are packaged for delivery to the analytical laboratory. Method

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holding times will be reviewed to ensure delivery of samples with adequate time for extraction/analysis.

4. Chain-of-custody and shipment procedures will include the following:

- Chain-of-custody forms will be completed at the end of each sampling day, prior to the transfer of samples off site.
- Chain-of-custody forms will be completed at the end of each sampling day, prior to the transfer of samples off site.
- Individual sample containers will be packed to prevent breakage and transported in a sealed cooler with ice. The drainage hole at the bottom of the cooler will be sealed and secured in case of sample container leakage.
- Temperature blanks will be included with each shipping container.
- Each container will be shipped directly to the analytical laboratory.
- A chain-of-custody form will be placed inside each container.
- Custody seals will be signed, dated, and used to seal the sample-shipping container, in conformance with EPA protocol.
- Upon receipt of the samples at the laboratory, the custody seals will be broken, the chain-of-custody form will be signed as received by the laboratory, and the conditions of the samples will be recorded. The original chain-of-custody form will remain with the laboratory and copies will be returned to the relinquishing party.
- Copies of all chain-of-custody forms generated as part of sampling activities will be maintained on-site.

4.3 Collection and Management of Investigation Derived Waste

Drill cuttings, excess sample material and decontamination fluids, and all other investigation derived waste (IDW) associated with soil borings will be contained and characterized using methods based on the boring location, boring depth, drilling method, and type of contaminants suspected or encountered. All decontamination water will be characterized prior to disposal unless it is disposed in the ~~refinery~~ Refinery wastewater treatment system upstream of the new API Separator. An IDW management plan is included as Appendix F.

Field equipment requiring calibration will be calibrated to known standards, in accordance with the manufacturers' recommended schedules and procedures. At a minimum, calibration checks will be conducted daily, or at other intervals approved by the Department, and the instruments will be recalibrated as necessary. Calibration measurements will be recorded in the daily field logs. If field



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equipment becomes inoperable, its use will be discontinued until the necessary repairs are made. In the interim, a properly calibrated replacement instrument will be used.

4.4 Documentation of Field Activities

Daily field activities, including observations and field procedures, will be recorded on field forms or in a field logbook. Copies of the completed forms will be maintained in a bound and sequentially numbered field file for reference during field activities. Indelible ink will be used to record all field activities. Photographic documentation of field activities will be performed, as appropriate. The daily record of field activities will include the following:

1. Site or unit designation;
2. Date;
3. Field investigation team members including subcontractors and visitors;
4. Weather conditions;
5. Observations;
6. Record of samples collected with sample designations and locations specified;
7. Photographic log, as appropriate;
8. Field monitoring data, including health and safety monitoring;
9. Equipment used and calibration records, if appropriate;
10. List of additional data sheets and maps completed;

4.5 Chemical Analyses

All samples collected for laboratory analysis will be submitted to Hall laboratory. The laboratory will use the most recent standard EPA and industry-accepted analytical methods for target analytes as the testing methods for each medium sampled. Chemical analyses will be performed in accordance with the most recent EPA standard analytical methodologies and extraction methods.

Soil samples will be analyzed for the following :

- VOCs (SW-846 Method 8260 or similar)
- semi-volatile organic compounds (SW-846 Method 8270 or similar)
- gasoline range (C5-C10), diesel range (>C10-C28), and motor oil range (>C28-C36) organics (SW-846 Method 8015B or similar)

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Soil samples will also be analyzed for the following Skinner List metals, iron, and manganese using the indicated analytical methods shown, or the most recent standard EPA and/or industry-accepted analytical methods.

Inorganic Analytical Methods

Analyte	Analytical Method
Antimony	SW-846 method 6010/6020
Arsenic	SW-846 method 6010/6020
Barium	SW-846 method 6010/6020
Beryllium	SW-846 method 6010/6020
Cadmium	SW-846 method 6010/6020
Chromium	SW-846 method 6010/6020
Cobalt	SW-846 method 6010/6020
Cyanide	SW-846 method 335.4/335.2 mod
Lead	SW-846 method 6010/6020
Mercury	SW-846 method 7470/7471
Nickel	SW-846 method 6010/6020
Selenium	SW-846 method 6010/6020
Silver	SW-846 method 6010/6020
Vanadium	SW-846 method 6010/6020
Zinc	SW-846 method 6010/6020
Iron	SW-846 method 6010/6020
Manganese	SW-846 method 6010/6020
Chloride	EPA method 300.0



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5.0 References

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- Giant Refining Company. 1997. Comprehensive Facility Investigation Work Plan (Stage 1 Abatement Plan), Giant Refining Company Ciniza Refinery, p. 7.
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ATTACHMENT C

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Area of Concern 35



Marathon Gallup Refinery
Western Refining Southwest, LLC
Gallup, New Mexico

EPA ID# NMD000333211

March 2022

Revised March 2023



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List of Acronyms

%RE	percent Reference Emitter
AOC	Area of Concern
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, xylenes
cm/sec	centimeters per second
EPA	Environmental Protection Agency
ft	foot or feet
IDW	investigation derived waste
LIF/HP	laser-induced fluorescence/hydraulic profiling
MKTF	marketing tank farm
MTBE	methyl tert butyl ether
NMED	New Mexico Environment Department
NMOCD	New Mexico Oil Conservation Division
SPH	separate-phase hydrocarbon
TPH	total petroleum hydrocarbon
UVOST	ultra-violet optical screening tool
VOC	volatile organic compound



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Executive Summary

The Marathon Gallup Refinery (hereinafter referred to as “the Refinery”), which is located 17 miles east of Gallup, New Mexico, has been in operation since the 1950s. Pursuant to the terms and conditions of the facility Resource Conservation and Recovery Act Post-Closure Care Permit and 20.4.1.500 New Mexico Administrative Code, this Investigation Work Plan has been prepared for Area of Concern (AOC) 35. AOC 35 includes the main truck loading rack, crude slop and ethanol unloading facility, additive tank farm/loading rack, and the retail tank farm (also known as the marketing tank farm).

Historical groundwater sample results within and around AOC 35 have shown impacts from petroleum hydrocarbons. Investigative activities due to observed groundwater impacts were proposed in an AOC 35 investigation work plan originally dated August 2018; New Mexico Environment Department (NMED) approval was received in September 2019. Subsequent to preparation/approval of the initial investigation work plan, on October 27, 2019, a gasoline release was observed surfacing on the west side of the truck loading rack within AOC 35. The source of the release was determined to be an underground transfer line on the north side of the truck loading rack.

As a result of the gasoline release, the AOC 35 investigation work plan was modified to include additional soil boring locations. The modified work plan was submitted to NMED on February 27, 2020; NMED approval was received in February 2021.

Concurrently with development of the modified work plan, laser-induced fluorescence/hydraulic profiling (LIF/HP) events were scheduled and conducted at the Refinery in November 2019, February 2021, and May 2021. The LIF/HP events included numerous locations within, and hydraulically down-gradient, of AOC 35, greatly increasing the understanding of subsurface conditions in the area. A report pertaining to the November 2019 and February 2021 LIF/HP results was submitted to NMED on March 31, 2021. An investigation report regarding all the LIF/HP investigation data was submitted to NMED on November 1, 2021.

This investigation work plan seeks to supplant the originally proposed investigation activities to build upon the LIF/HP data collection efforts to bolster the understanding of subsurface conditions in the area and correlate the analytical results with the LIF/HP results. More specifically, the originally proposed soil investigation locations have been removed, and new locations, co-located with LIF/HP locations, have been proposed. The new locations were strategically chosen based on the LIF ultra-violet optical screening tool response data which identified the presence and location of multiple product types (i.e., gasoline, diesel, etc.) throughout and hydraulically down-gradient of AOC 35.

The soil samples will be analyzed for volatile organic compounds, semi-volatile organic compounds, total petroleum hydrocarbons, Skinner List metals, iron, manganese, and chloride.



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1.0 Introduction

The Marathon Gallup Refinery (the Refinery) is located approximately 17 miles east of Gallup, New Mexico along the north side of Interstate Highway I-40 in McKinley County. The physical address is I-40, Exit #39 Jamestown, New Mexico 87347. The Marathon Gallup Refinery is located on 810 acres. Figure 1 presents the Refinery location and the regional vicinity.

The Refinery has been indefinitely idled since August 2020. Historically, the Refinery generally processed crude oil transported to the facility by pipeline or tanker truck. Various process units were operated at the facility, including crude distillation, reforming, fluidized catalytic cracking, alkylation, sulfur recovery, merox treater, and hydrotreating. Refinery operations have produced gasoline, diesel fuels, jet fuels, kerosene, propane, butane, and residual fuel.

This investigation work plan addresses the Area of Concern (AOC) 35, which includes the main truck loading rack, crude slop and ethanol unloading facility, additive tank farm loading rack, and the retail tank farm (Figure 2). The initial AOC 35 investigation work plan was provided to the New Mexico Environment Department (NMED) in August 2018 and approved by NMED in September 2019. The initial investigation work plan was subsequently revised following discovery of a leaky underground transfer line in the vicinity of the main truck loading rack (October 2019). The revised work plan was submitted to NMED in February 2020 and approved by NMED in February 2021. Concurrently with development of the revised work plan, laser-induced fluorescence/hydraulic profiling (LIF/HP) events were scheduled and conducted at the Refinery in November 2019, February 2021, and May 2021. Subsequently, based on the LIF/HP results, a request to further revise the AOC 35 investigation work plan was submitted to NMED on August 3, 2021 and approved by NMED on August 10, 2021.

Much of the information presented in this work plan aligns with the previously submitted, and NMED-approved, AOC 35 investigation work plans. However, where applicable, additional information from the LIF/HP investigations are included. The goal of this investigation is to collect additional data to augment the understanding of the subsurface conditions within and hydraulically down gradient of AOC 35 using the previously collected LIF/HP data as a guide.

The investigation activities will be conducted in accordance with Section IV.H.5 of the Post-Closure Care Permit and the procedures outlined in this work plan.



2.0 Background

This section presents background information for the area of the Refinery property near AOC 35, including a review of historical waste management activities to help identify the following:

- Type and characteristics of waste and contaminants handled in the subject areas;
- Known and possible sources of contamination;
- History of operations; and
- Prior investigations.

2.1 Main Truck Loading Rack Area

The main truck loading rack is located in the southwestern area of the formerly active portion of the Refinery property (Figure 2). The main loading racks cover an area approximately 100 feet (ft) by 120 ft and were used to load refined petroleum products (e.g., gasoline and diesel) into tanker trucks. The loading racks appear to have been in operation in this same location since at least 1962. There is no history of waste materials being handled at the loading racks.

Underground piping near the main loading racks include a sanitary sewer drain line running east to west, north of the loading rack, and oily water drain lines (process sewer lines) that run from the lab building to the loading rack and then continue to the north after picking up discharge from the loading rack sumps (Figure 2). The sumps were used to collect small spills on the loading rack concrete apron and de minimis volumes of product that drained from loading hoses.

There have been documented releases at the loading rack that were discovered and addressed at the time of the release, including notification to the appropriate regulatory agencies. On December 4, 2007, approximately 6,800 gallons of gasoline was spilled when a truck driver erroneously opened a valve on a tanker truck (Release Notification dated Dec. 7, 2007). On December 23, 2009, approximately 1,848 gallons of diesel fuel was spilled from a leaking underground pipeline at the west end of the loading rack (Release Notification dated Dec. 29, 2009).

2.2 Crude Slop and Ethanol Unloading Facility

This facility is located approximately 80 ft northwest of the main loading racks (Figure 2) and was used to unload recovered oil and transmix reclaimed from various locations within the Refinery. The area was also used to unload ethanol delivered to the Refinery via truck. It was originally put into service sometime before the 1990s. The unloading area is approximately 15 ft by 40 ft and includes a concrete pad and sump, overhead pipelines, and various connections to support unloading operations. The concrete pad and sump are connected to the process sewer.



2.3 Additive Tank Farm Loading Rack

Petroleum product additives were stored in aboveground tanks at the additive tank farm loading rack (Figure 2). These additive tanks are small aboveground tanks located approximately 150 ft west of the main loading rack. The additive tanks were installed prior to 1997, but the exact date is uncertain. Only products (i.e., fuel additives), no wastes, were managed in this area; methyl tert butyl ether (MTBE) is not, and has not been, stored in these tanks. The additive tanks were taken out of service and cleaned during the 2020/2021 calendar years. There are no products stored in any additive tanks at this time. The only recorded release from the additive tanks is a 2 to 3 gallon Power Service brand diesel additive release in 2017. The safety data sheets for the diesel additive are provided as Appendix A.

2.4 Marketing Tank Farm

The marketing tank farm (MKTF) is located approximately 150 ft northwest of the main loading racks and includes Tanks 1 – 8, 912, 913, 1001, and 1002 (Figure 2). Retail petroleum products (e.g., gasoline, diesel, and biodiesel) were stored in these tanks, and MTBE was stored in Tank 6, prior to discontinuation of its use in 2006; ethanol was stored in Tank 6 after the use of MTBE was discontinued. The first tanks were constructed in 1963 and have had routine inspections both external and internal since construction. The MKTF tanks have been cleaned and emptied and remain in place.

The fuels were delivered to the marketing tanks via pipelines run primarily aboveground. Ethanol was unloaded at the adjacent ethanol unloading facility and transferred to Tanks 5 and 6 via aboveground lines. The fuels and additives were subsequently transferred to the main loading racks via aboveground and underground pipelines where they were loaded into tanker trucks.

There have been documented releases at the marketing tank farm primarily from overfilling of the tanks. Two examples include:

- On December 31, 2007, approximately 1,344 gallons (32 barrels) of ethanol was spilled when a pressure gauge on Tank 5 became loose and began leaking (Release Notification dated Jan. 2, 2008).
- On March 7, 2008, approximately 840 gallons (20 barrels) of diesel fuel was spilled during filling when the transfer pump did not switch off at the preselected level (Release Notification dated March 10, 2008).

2.5 Historical AOC 35 Investigations

The earliest investigation in the area is referenced in Comprehensive Facility Investigation Work Plan that was prepared for the New Mexico Oil Conservation Division (NMOCD) in June 1997 (Giant Refining Company, 1997). The work plan references “groundwater impact area #4” as being in the vicinity of the truck loading rack. It is stated that the source of the impact was a spill of hydrocarbon that occurred in the early 1980s. The area is further described as having residual hydrocarbons present at low levels and



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declining through natural biodegradation. No quantitative information could be located to substantiate the description of the conditions provided in the 1997 work plan.

As part of the 2013/2014 interim measures to address a hydrocarbon seep area located to the northwest of the main loading racks (Figure 2), 44 new monitoring wells were installed near the loading racks (DiSorbo, 2016). These wells are identified by "MKTF" in the monitoring well name (MKTF-1 through MKTF-44). In addition, during the 2013 field reconnaissance process to locate potential drilling locations near the main loading racks, an unidentified well was located to the west of the main loading racks, it was subsequently named MKTF-45. Figures 3A and 3B depict the location of numerous monitoring wells (MKTF designation) in and around AOC 35 as well as fluid level elevations and a potentiometric surface map for the third quarter of 2019 and second quarter of 2022, respectively. Fluid level data are provided in Appendix B. These wells are primarily screened across the contact of the Chinle Group (Petrified Forest Formation) that forms an aquitard and the overlying alluvial/fluvial deposits (Quaternary Alluvium) (more geological information provided in Section 3).

Groundwater samples collected from the MKTF wells have shown the presence of petroleum hydrocarbons, including benzene, toluene, ethylbenzene, and xylene (BTEX) and related constituents (e.g., MTBE) at concentrations above screening levels (Appendix C). The distribution of the constituents' benzene and MTBE as well as total petroleum hydrocarbon (TPH), as shown on Figures 4A through 6B, likely indicate a source of groundwater contamination from within AOC 35 ("A" and "B" in figure titles indicate before and after discovery of the leaking transfer line, respectively). Additional information pertaining to the distribution of separate phase hydrocarbon (SPH) within this area is presented in the March 31, 2021 LIF/HP report (Trihydro, 2021). Historical BTEX, MTBE, and TPH results for the MKTF wells are provided in Appendix C.

2.6 October 2019 Underground Transfer Line Release and Laser-Induced Fluorescence Investigation

On October 27, 2019 an area of soil staining and surfaced product was observed to the west of the Truck loading rack in a stormwater drainage ditch. Investigation efforts identified an underground product transfer line leaking gasoline on the north side of the Truck loading rack. As part of the initial spill response efforts, the pipeline was taken out of service, an earthen berm was placed to stop flow in the stormwater ditch, and fluids present in the ditch were recovered. The spill and spill response were reported on November 7, 2019 to NMED and NMOCD via Form C-141, a copy of which is included in Appendix D.

After the release was identified, fluid levels were checked in nearby monitoring wells to determine if the gasoline (expressed as SPH) was present. Figures depicting the SPH thicknesses prior to the release and most recently are included as Figures 7A and 7B, showing the October 2019 and second quarter 2022 measurements, respectively. All measurements through fourth quarter 2022 are provided in Appendix B; fluid level measurements around AOC 35 are currently recorded on a monthly basis. These measurements show SPH appearing for the first time in wells MKTF-13 on January 15, 2020, MKTF-17 on November 19, 2019, MKTF-19 on December 2, 2019. In addition, significant increases in the measured



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thickness of SPH occurred in wells MKTF-05 on November 13, 2019, MKTF-06 on December 2, 2019, MKTF-07 on December 19, 2019, MKTF-36 on November 6, 2019, and MKTF-45 on October 31, 2019.

To further investigate the extent of the gasoline release an LIF/HP event was conducted in November 2019 consisting of 18 locations within and immediately downgradient (to the west) of AOC 35. The ultraviolet optical screening tool (UVOST) used during the November 2019 LIF/HP event identified multiple product signatures (i.e., gasoline, diesel, and naphtha) and some degree of impacts at all 18 locations. After review of the LIF/HP results, the subsurface investigation was expanded in February 2021 with the addition of 37 LIF/HP locations around the peripheral of AOC 35 (north, south, and west), primarily in the direction of groundwater migration (west). Some additional LIF/HP locations were also added in the vicinity of AOC 35 in May 2021 to further bound the observed extent of impacts. The LIF/HP investigation locations and observed product signatures are depicted on Figure 8. Results from the November 2019 and February 2021 LIF/HP investigations were submitted to NMED in a report dated March 31, 2021, titled *Marketing Tank Farm Laser-Induced Fluorescence/Hydraulic Profiling Investigation Report* (MKTF LIF Report). The LIF/HP results collected in May 2021 included step-out locations to further bound results presented in the MKTF LIF Report as well as additional locations outside of the MKTF area. Locations within the MKTF area, from the May 2021 LIF/HP investigation, were presented in November 2021 as an addendum to the MKTF LIF Report. LIF/HP locations outside of the MKTF area were included in the October 27, 2021 report titled *Tank 570 Release and Additional Areas LIF/HP Investigation Report*.



3.0 Site Conditions

3.1 Surface Conditions

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 ft to 6,860 ft. Surface soils within most of the area of investigation are primarily Rehobeth silty clay loam. Rehobeth soil properties include a pH ranging from 8 to 9 standard units and salinity naturally occurring and typically measuring up to approximately 8 millimhos per centimeter.

The site is located in the Puerco River Valley, north of the Zuni Uplift with overland flows directed northward to the tributaries of the Puerco River. The Puerco River continues to the west to the confluence with the Little Colorado River. The South Fork of the Puerco River is intermittent and retains flow only during and immediately following precipitation events. Additional regional surface water features include the Refinery evaporation ponds.

3.2 Subsurface Conditions

The shallow subsurface soils consist of fluvial and alluvial deposits comprised of clay and silt 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, which is Upper Triassic, 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 and the Sonsela Sandstone Bed is the uppermost recognized regional aquifer. Aquifer test of the Sonsela Bed northeast of Prewitt indicated a transmissivity of greater than 100 square ft/day (Stone and others, 1983). The Sonsela Sandstone's highest point occurs southeast of the site 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 diverse properties and complex irregular stratigraphy of the surface soils across the site cause a wide range of hydraulic conductivity ranging from less than 10⁻² centimeters per second (cm/sec) for gravel like sands immediately overlying the Petrified Forest Formation to 10⁻⁸ cm/sec in the clay soils located near the surface (Western, 2009). Generally, shallow groundwater at the Refinery follows the upper contact of the Petrified Forest Formation with prevailing flow from the southeast to the northwest, although localized areas may have varying flow directions (Figures 3A and 3B). Fluid level measurements for wells in the area of AOC 35 are included in Appendix B.



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4.0 Scope of Services

This investigation will be conducted to further characterize the subsurface soil within and downgradient of AOC 35 by supporting the LIF/HP investigation results with analytical results. Locations were strategically selected based on product signatures identified during the LIF/HP investigation, vertical extent of impacts at the identified locations, and the magnitude of the LIF percent reference emitter (%RE). If possible, a correlation will be created between the analytical results and individual UVOST signatures. The investigation will commence upon approval of this Investigation Work Plan by NMED, pending availability of direct push drilling equipment/operators.

4.1 AOC 35 Investigation

Out of the November 2019, February 2021, and May 2021 LIF/HP investigation locations in the vicinity of AOC 35, detailed in Section 2.6 and depicted on Figure 8, 10 locations have been selected for screening and sampling (Figure 9). The 10 locations were selected based on their UVOST signatures as well as their geographic location. The selected locations will provide two analytical data sets for each of the identified product types within AOC 35 (i.e., gasoline, diesel, and comingled gasoline/diesel), two analytical data sets for locations at the western edge of identified impacts, and two analytical data sets for locations with residual/no UVOST response. The locations listed below were selected for screening and sampling based on the UVOST waveform results, the total depth of the borings are provided in parentheses:

- Diesel signatures
 - MKTF-LIF-47 - (31.20 ft-bgs [below ground surface])
 - Diesel signature from 4 to 15 ft-bgs
 - MKTF-LIF-66 - (18.58 ft-bgs)
- Gasoline signatures
 - MKTF-LIF-37 - (29.24 ft-bgs)
 - MKTF-LIF-42 - (31.51 ft-bgs)
- Gasoline/diesel mixture signatures
 - MKTF-LIF-46 - (34.66 ft-bgs)
 - MKTF-LIF-47 - (31.20 ft-bgs)
 - Gasoline/diesel mixture signature from 20 to 32 ft-bgs



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- Western edge of identified impacts
 - MKTF-LIF-62 - (34.76 ft-bgs)
 - MKTF-LIF-74 - (21.33 ft-bgs)
- Residual/no UVOST response
 - MKTF-LIF-71 - (25.29 ft-bgs)
 - MKTF-LIF-78 - (29.29 ft-bgs)

The LIF/HP depth will be utilized to determine the target depth for each co-located sample location; specifics regarding the soil screening and sampling intervals are provided in Section 4.2. The UVOST boring logs for the 10 selected LIF/HP locations are provide in Appendix E.

In addition to the proposed screening/sampling, an effort will be made to determine the screened interval of monitoring well MKTF-45 (Figure 9). As detailed in Section 2.5, MKTF-45 was discovered in the vicinity of the main truck loading rack (~160 ft southwest) in 2013, however, a detailed construction log for this well was never discovered. A down hole camera will be deployed at this location in an attempt to determine the screened interval.

4.2 Soil Sample Field Screening, Sampling, and Logging

The soil borings may be completed via hand augers or a geo-probe direct push rig; macrocore will be used for shallow intervals, dual tube will be used for deeper intervals. Alternatively, hollow-stem augers may be used instead. The drilling equipment will be properly decontaminated before drilling each boring. The NMED will be notified as early as practicable if conditions arise or are encountered that do not allow the advancement of borings to the specified depths or at planned sampling locations.

Soil cores and associated samples will be screened in the field on 3.0-ft intervals for evidence of contaminants. Field screening results will be recorded on the exploratory boring logs. The primary screening methods include: (1) visual examination, (2) olfactory examination, and (3) headspace vapor screening for volatile organic compounds (VOCs).

Visual screening includes examination of soil samples for evidence of staining caused by petroleum-related compounds or other substances that may cause staining of natural soils. Headspace vapor screening targets volatile organic compounds and involves placing a soil sample in a plastic sample bag allowing space for ambient air. The container will be sealed and then shaken gently to expose the soil to the air trapped in the container. The sealed container will be allowed to rest while vapors equilibrate. Vapors present within the sample bag's headspace will then be measured by inserting the probe of the instrument in a small opening in the bag. The maximum value and the ambient air temperature will be recorded on the field boring or test pit log for each interval. Note that if samples are cold (i.e., below 32 degrees Fahrenheit) they will be sealed in airtight bags and warmed in a heated building and/or vehicle before screening.



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The monitoring instruments will be calibrated each day to the manufacturer's standard for instrument operation. A photoionization detector (PID) equipped with a 10.6 or higher electron volt lamp or a combustible gas indicator may be used for VOC field screening. Field screening results may be site- and boring-specific and the results may vary with instrument type. The media screened, weather conditions, moisture content, soil type, and type of contaminant, will be recorded on the field logs.

For locations with observed impacts on the UVOST boring log, discrete soil samples will be collected from each boring for laboratory analyses every 3 ft until reaching the final depth of the corresponding LIF/HP borehole. For locations with residual/no UVOST response, soil samples will be collected every 6 ft until reaching final depth of the corresponding LIF/HP borehole. Additional samples, beyond the planned interval sampling, will be collected if unexpected results are observed during the field screening process (e.g., elevated PID/flame ionization detector readings above expectations or stained/malodorous soil at intervals with no/low %RE). The physical characteristics of the samples (such as mineralogy, ASTM soil classification, moisture content, texture, color, presence of stains or odors, and/or field screening results), depth where each sample was obtained, method of sample collection, and other observations will be recorded in the field log by a qualified geologist. Additional information, such as the presence of water-bearing zones and any unusual or noticeable conditions encountered during drilling, will also be recorded on the logs.

Quality Assurance/Quality Control samples will be collected to monitor the validity of the soil sample collection procedures as follows:

- Field duplicates will be collected at a rate of 10 percent of the overall samples
- Equipment blanks will be collected at a frequency of one per day

4.2.1 Sample Handling

At a minimum, the following procedures will be used at all times when collecting and screening samples:

1. New disposable nitrile gloves will be used to collect each sample.
2. Samples will be transferred from the sample retrieval device (e.g., macrocore, dual tube, split-spoon, hand auger, etc.) directly into clean sample containers supplied by the project analytical laboratory and/or clean field screening containers (e.g., Ziplock® baggies). Sample container volumes and preservation methods will be in accordance with the most recent standard Environmental Protection Agency (EPA) and industry accepted practices for use by accredited analytical laboratories. Sufficient sample volume will be collected for the laboratory to complete the method-specific quality control analyses on a laboratory-batch basis.
3. Sample labels and documentation will be completed as each sample is collected. Immediately after the samples are collected, they will be stored in a cooler with ice, or other appropriate storage method, until they are packaged for delivery to the analytical laboratory. Method



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holding times will be reviewed to ensure delivery of samples with adequate time for extraction/analysis.

4. Chain-of-custody and shipment procedures will include the following:

- Chain-of-custody forms will be completed at the end of each sampling day, prior to the transfer of samples off site.
- Chain-of-custody forms will be completed at the end of each sampling day, prior to the transfer of samples off site.
- Individual sample containers will be packed to prevent breakage and transported in a sealed cooler with ice. The drainage hole at the bottom of the cooler will be sealed and secured in case of sample container leakage.
- Temperature blanks will be included with each shipping container.
- Each container will be shipped directly to the analytical laboratory.
- A chain-of-custody form will be placed inside each container.
- Custody seals will be signed, dated, and used to seal the sample-shipping container, in conformance with EPA protocol.
- Upon receipt of the samples at the laboratory, the custody seals will be broken, the chain-of-custody form will be signed as received by the laboratory, and the conditions of the samples will be recorded. The original chain-of-custody form will remain with the laboratory and copies will be returned to the relinquishing party.
- Copies of all chain-of-custody forms generated as part of sampling activities will be maintained on-site.

4.3 Collection and Management of Investigation Derived Waste

Drill cuttings, excess sample material and decontamination fluids, and all other investigation derived waste (IDW) associated with soil borings will be contained and characterized using methods based on the boring location, boring depth, drilling method, and type of contaminants suspected or encountered. All decontamination water will be characterized prior to disposal unless it is disposed in the Refinery wastewater treatment system upstream of the new API Separator. An IDW management plan is included as Appendix F.

Field equipment requiring calibration will be calibrated to known standards, in accordance with the manufacturers' recommended schedules and procedures. At a minimum, calibration checks will be conducted daily, or at other intervals approved by the Department, and the instruments will be recalibrated as necessary. Calibration measurements will be recorded in the daily field logs. If field



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equipment becomes inoperable, its use will be discontinued until the necessary repairs are made. In the interim, a properly calibrated replacement instrument will be used.

4.4 Documentation of Field Activities

Daily field activities, including observations and field procedures, will be recorded on field forms or in a field logbook. Copies of the completed forms will be maintained in a bound and sequentially numbered field file for reference during field activities. Indelible ink will be used to record all field activities. Photographic documentation of field activities will be performed, as appropriate. The daily record of field activities will include the following:

1. Site or unit designation;
2. Date;
3. Field investigation team members including subcontractors and visitors;
4. Weather conditions;
5. Observations;
6. Record of samples collected with sample designations and locations specified;
7. Photographic log, as appropriate;
8. Field monitoring data, including health and safety monitoring;
9. Equipment used and calibration records, if appropriate;
10. List of additional data sheets and maps completed;

4.5 Chemical Analyses

All samples collected for laboratory analysis will be submitted to Hall laboratory. The laboratory will use the most recent standard EPA and industry-accepted analytical methods for target analytes as the testing methods for each medium sampled. Chemical analyses will be performed in accordance with the most recent EPA standard analytical methodologies and extraction methods.

Soil samples will be analyzed for the following :

- VOCs (SW-846 Method 8260 or similar)
- semi-volatile organic compounds (SW-846 Method 8270 or similar)
- gasoline range (C5-C10), diesel range (>C10-C28), and motor oil range (>C28-C36) organics (SW-846 Method 8015B or similar)



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Soil samples will also be analyzed for the following Skinner List metals, iron, and manganese using the indicated analytical methods shown, or the most recent standard EPA and/or industry-accepted analytical methods.

Inorganic Analytical Methods

Analyte	Analytical Method
Antimony	SW-846 method 6010/6020
Arsenic	SW-846 method 6010/6020
Barium	SW-846 method 6010/6020
Beryllium	SW-846 method 6010/6020
Cadmium	SW-846 method 6010/6020
Chromium	SW-846 method 6010/6020
Cobalt	SW-846 method 6010/6020
Cyanide	SW-846 method 335.4/335.2 mod
Lead	SW-846 method 6010/6020
Mercury	SW-846 method 7470/7471
Nickel	SW-846 method 6010/6020
Selenium	SW-846 method 6010/6020
Silver	SW-846 method 6010/6020
Vanadium	SW-846 method 6010/6020
Zinc	SW-846 method 6010/6020
Iron	SW-846 method 6010/6020
Manganese	SW-846 method 6010/6020
Chloride	EPA method 300.0



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5.0 References

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- Giant Refining Company. 1997. Comprehensive Facility Investigation Work Plan (Stage 1 Abatement Plan), Giant Refining Company Ciniza Refinery, p. 7.
- NMED. 2019. Risk Assessment Guidance for Site Investigation and Remediation, New Mexico Environment Department.
- 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.
- Trihydro. 2021. LIF/HP Investigation Report, Marathon Petroleum Company LP, Gallup Refinery.
- Western. 2009. Facility-wide Groundwater Monitoring Plan: Gallup Refinery, p. 97.



Revised Investigation Work Plan No. 2

Figures

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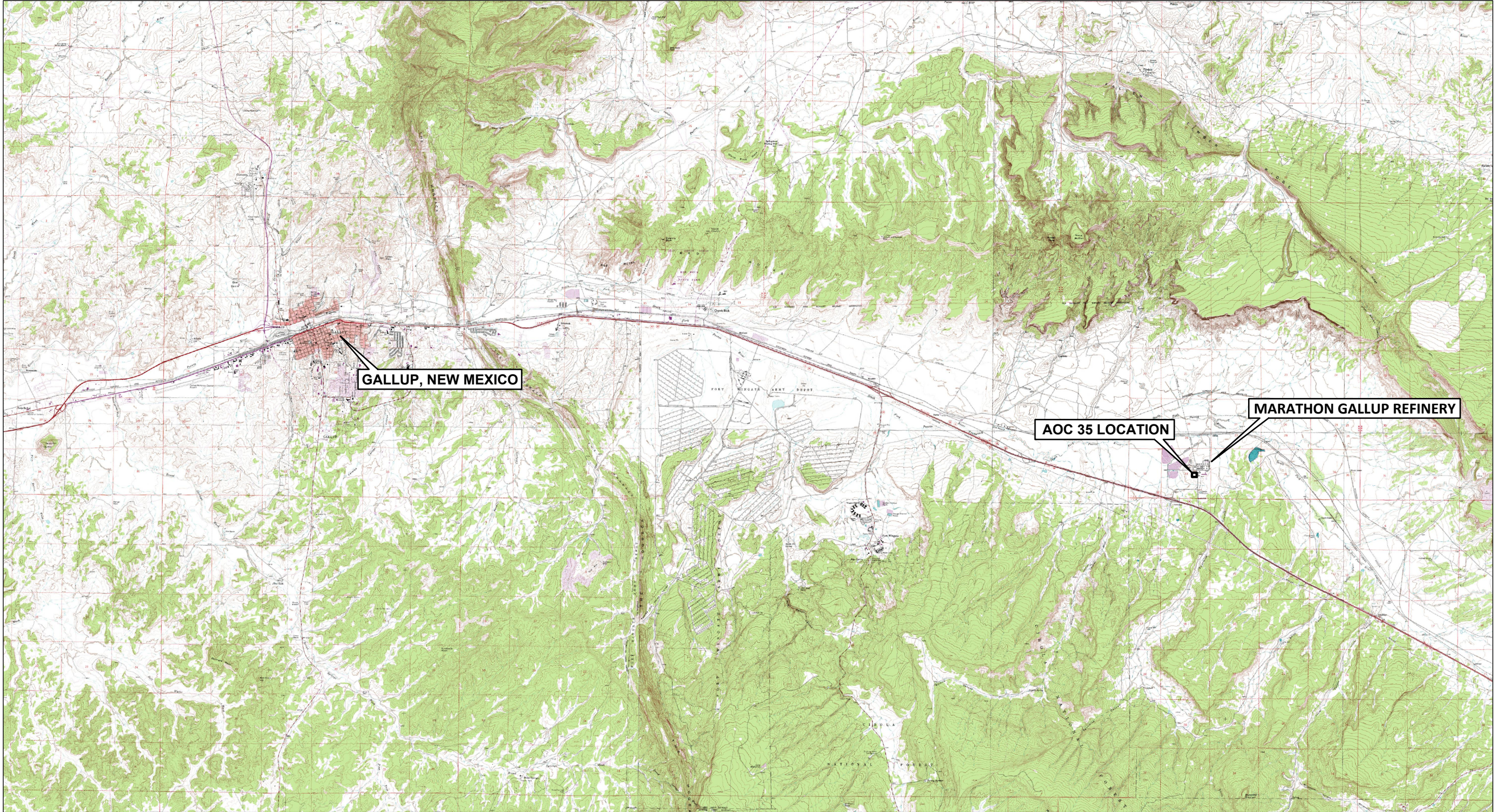
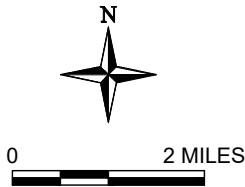


Image Cite: U.S. Geological Survey, 1:24,000--Scale 7.5 Minute Digital Raster Graphic Quadrangle, McKinley County, Publication: 2004



- NOTES:**
- 1. SITE LEGAL DESCRIPTION - TOWNSHIP 15 NORTH, RANGE 15 WEST, SECTION 33
 - 2. AOC = AREA OF CONCERN



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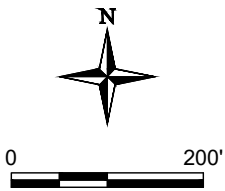
FIGURE 1			
SITE LOCATION MAP			
WESTERN REFINING SOUTHWEST LLC D/B/A MARATHON GALLUP REFINERY GALLUP, NEW MEXICO			
Drawn By: REP	Checked By: CF	Scale: 1" = 2 MILES	Date: 2/1/2023
		File: 697-AOC35-SITELOC-2023	

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EXPLANATION			
	MKTF-42	EXISTING MONITORING WELL AND DESIGNATION	 AOC 35 BOUNDARY
		EXISTING SUMP LOCATION	 OILY WATER DRAIN LINE
			 SANITARY SEWER LINE
			 AOC
			 AREA OF CONCERN





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FIGURE 2			
AOC 35 MAP			
WESTERN REFINING SOUTHWEST LLC D/B/A MARATHON GALLUP REFINERY GALLUP, NEW MEXICO			
Drawn By: REP	Checked By: CF	Scale: 1" = 200'	Date: 2/1/2023
		File: 697-AOC35-SITEMAP-2023	

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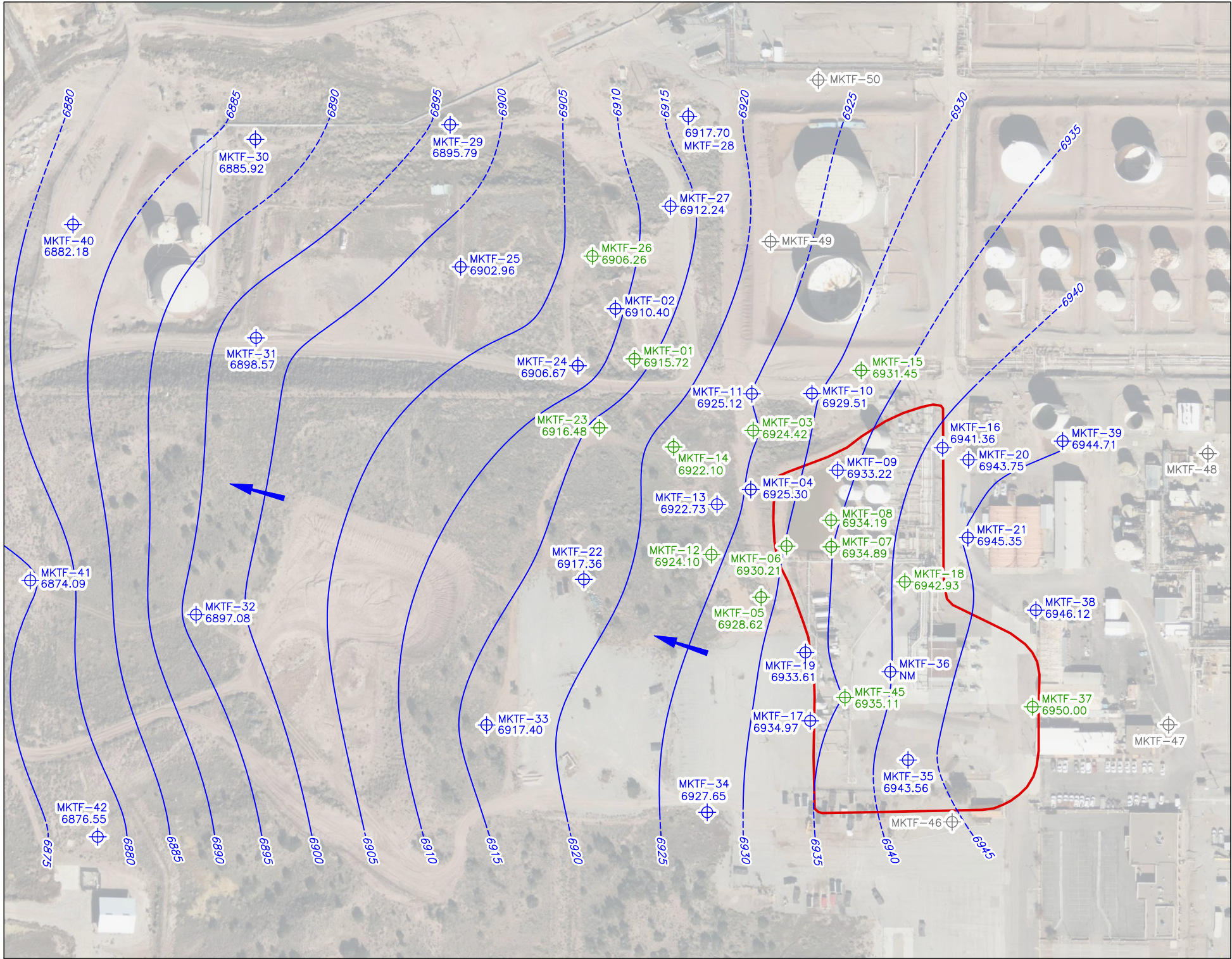
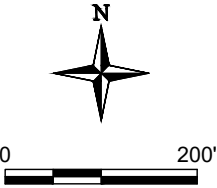


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EXPLANATION

- MKTF-39 6944.71 CHINLE/ALLUVIUM INTERFACE WELL AND DESIGNATION (SHOWING GROUNDWATER ELEVATION IN FT AMSL)
- MKTF-15 6931.45 MONITORING WELL WITH SPH AND DESIGNATION (SHOWING GROUNDWATER ELEVATION IN FT AMSL)
- MKTF-48 MONITORING WELL AND DESIGNATION (NON-EXIST THIRD QUARTER 2019)
- 6940 LINE OF EQUAL GROUNDWATER ELEVATION IN FT AMSL, DASHED WHERE INFERRED (APPROXIMATE) UPPER WATER-BEARING ZONE
- GROUNDWATER FLOW DIRECTION
- AOC 35 BOUNDARY
- AOC AREA OF CONCERN
- FT AMSL FEET ABOVE MEAN SEA LEVEL
- NM NOT MEASURED
- SPH SEPARATE-PHASE HYDROCARBON



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	POTENTIOMETRIC SURFACE MAP (AUGUST 2019)			
	WESTERN REFINING SOUTHWEST, LLC D/B/A MARATHON GALLUP REFINERY GALLUP, NEW MEXICO			
Drawn By: REP	Checked By: MS	Scale: 1" = 200'	Date: 3/1/2023	File: 697-AOC35-PS-Q3_2019

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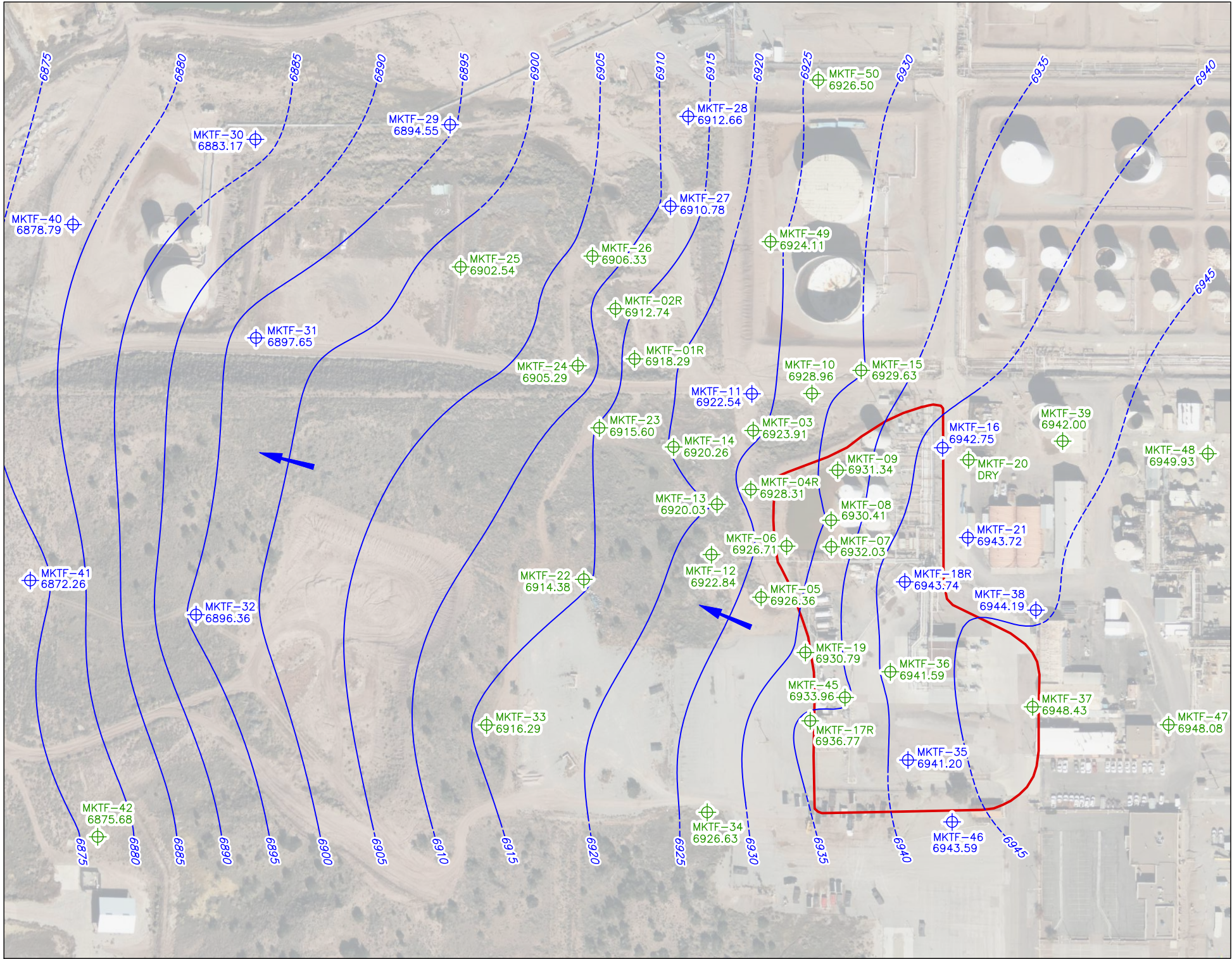


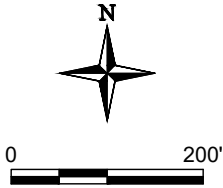
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EXPLANATION

- MKTF-16 6942.75 CHINLE/ALLUVIUM INTERFACE WELL AND DESIGNATION (SHOWING GROUNDWATER ELEVATION IN FT AMSL)
- MKTF-39 6942.00 MONITORING WELL WITH SPH AND DESIGNATION (SHOWING GROUNDWATER ELEVATION IN FT AMSL)
- 6945 LINE OF EQUAL GROUNDWATER ELEVATION IN FT AMSL, DASHED WHERE INFERRED (APPROXIMATE) UPPER WATER-BEARING ZONE
- GROUNDWATER FLOW DIRECTION
- AOC 35 BOUNDARY
- AOC AREA OF CONCERN
- FT AMSL FEET ABOVE MEAN SEA LEVEL
- NM NOT MEASURED
- SPH SEPARATE-PHASE HYDROCARBON

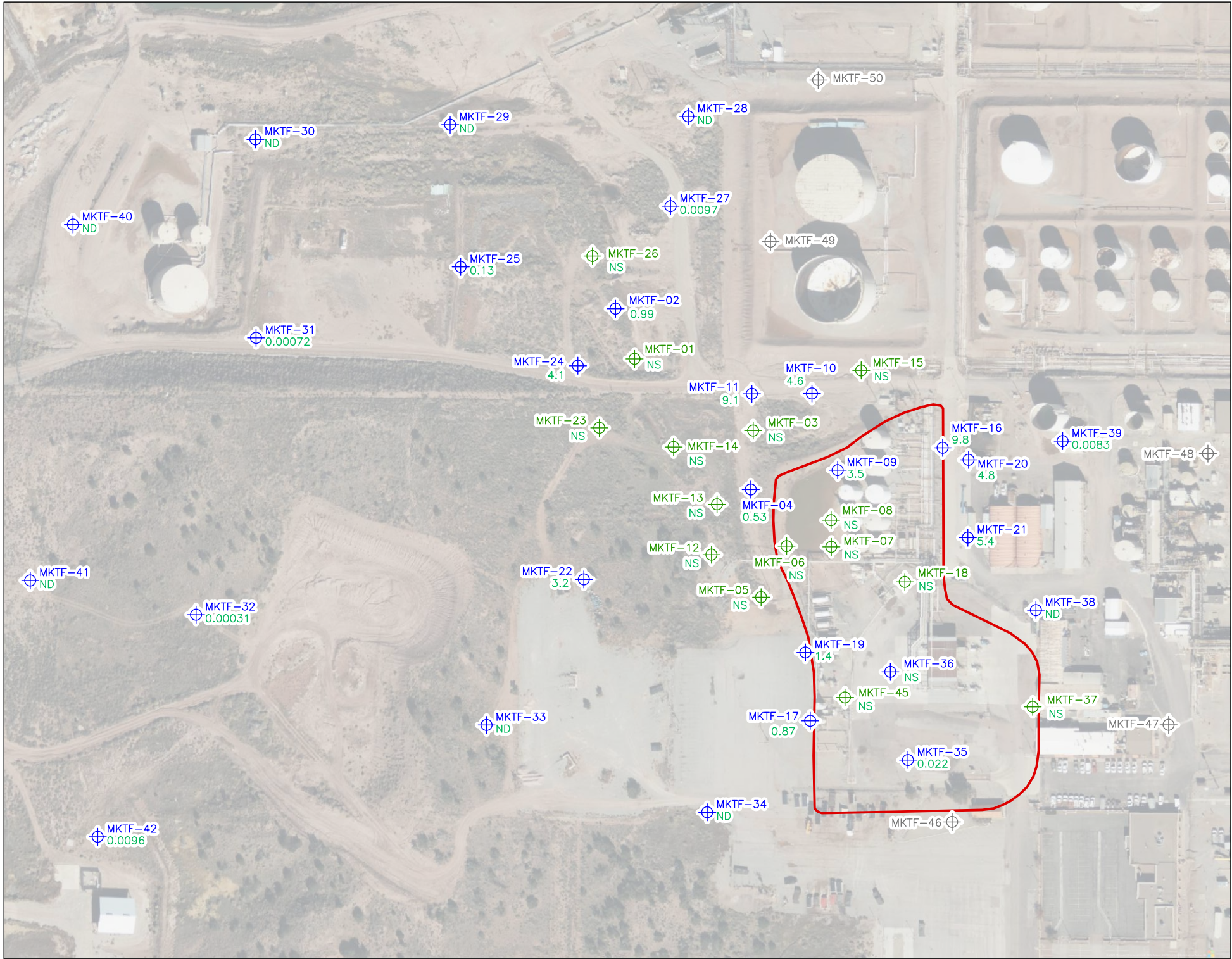
NOTE:

WELLS MKTF-01, MKTF-02, MKTF-04, MKTF-17, AND MKTF-18 WERE PLUGGED, ABANDONED, AND REPLACED THIRD QUARTER 2021.



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	POTENTIOMETRIC SURFACE MAP (SECOND QUARTER 2022)			
	WESTERN REFINING SOUTHWEST, LLC D/B/A MARATHON GALLUP REFINERY GALLUP, NEW MEXICO			
Drawn By: REP	Checked By: MS	Scale: 1" = 300'	Date: 3/1/2023	File: 697-AOC35-PS-Q2_2022

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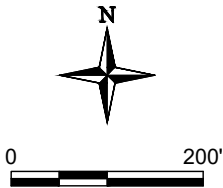


EXPLANATION

	MKTF-39	CHINLE/ALLUVIUM INTERFACE WELL AND DESIGNATION (SHOWING BENZENE CONCENTRATION IN mg/L)
	MKTF-15	MONITORING WELL WITH SPH AND DESIGNATION (SHOWING BENZENE CONCENTRATION IN mg/L)
	MKTF-48	MONITORING WELL AND DESIGNATION (WELLS INSTALLED DURING 2021)
	AOC 35 BOUNDARY	
AOC	AREA OF CONCERN	
ND	NOT DETECTED	
NS	NOT SAMPLED	
SPH	SEPARATE-PHASE HYDROCARBON	

NOTES:

- ALL VALUES ARE IN MILLIGRAMS PER LITER (mg/L).
- WELL MKTF-36 WAS INACCESSIBLE DURING MONITORING EVENT.



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	BENZENE CONCENTRATION MAP (THIRD QUARTER 2019)			
	WESTERN REFINING SOUTHWEST LLC D/B/A MARATHON GALLUP REFINERY GALLUP, NEW MEXICO			
Drawn By: REP	Checked By: CF	Scale: 1" = 200'	Date: 8/24/2021	File: 697-AOC35-BENZENEQ3-2019

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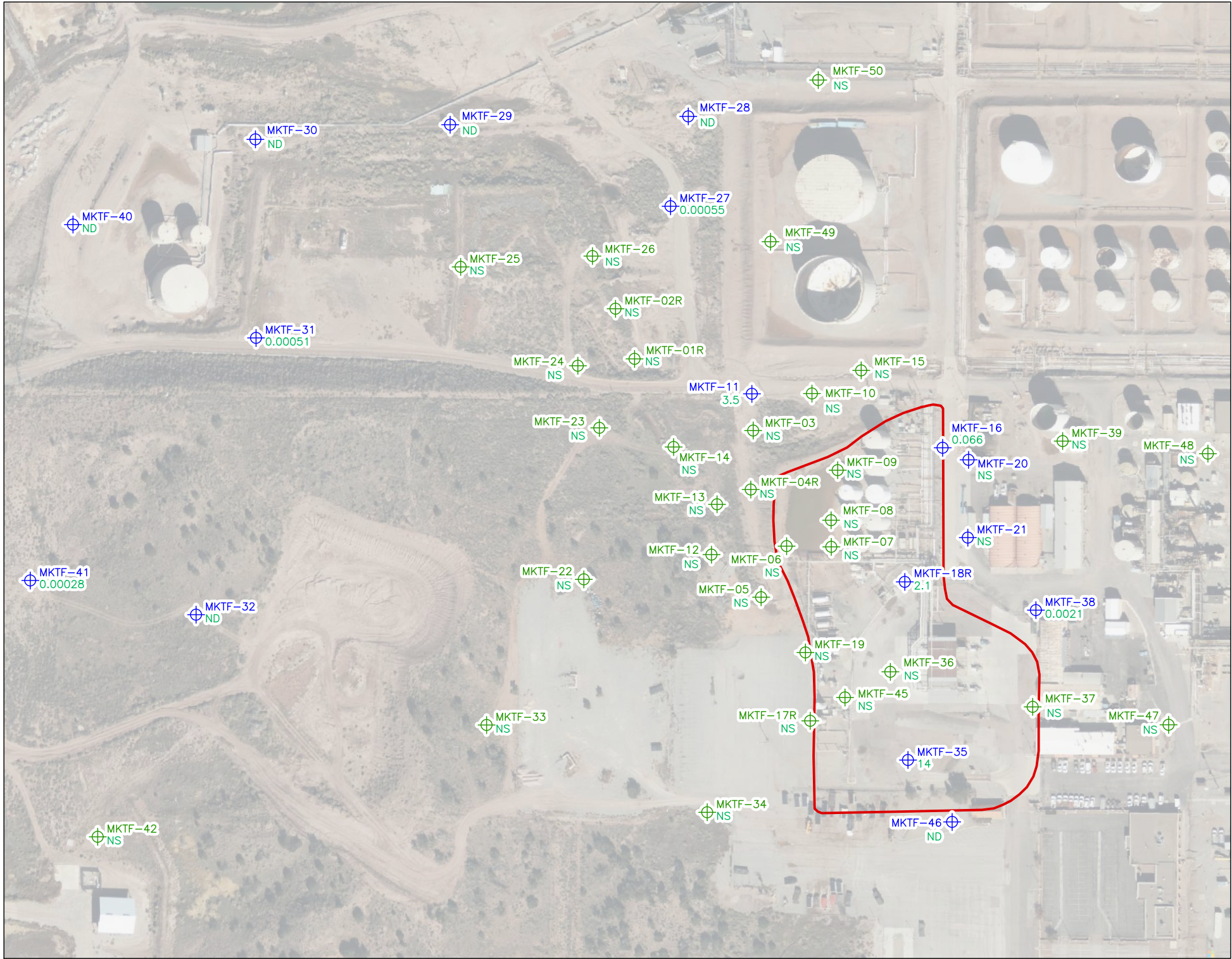


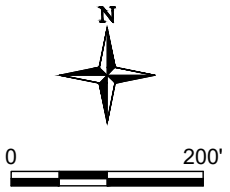
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EXPLANATION

	MKTF-16	CHINLE/ALLUVIUM INTERFACE WELL AND DESIGNATION (SHOWING BENZENE CONCENTRATION IN mg/L)
	MKTF-15	MONITORING WELL WITH SPH AND DESIGNATION (SHOWING BENZENE CONCENTRATION IN mg/L)
	MKTF-48	MONITORING WELL AND DESIGNATION (NON-EXIST THIRD QUARTER 2019)
	AOC 35	BOUNDARY
	AOC	AREA OF CONCERN
	ND	NOT DETECTED
	NS	NOT SAMPLED
	SPH	SEPARATE-PHASE HYDROCARBON

NOTES:

- 1. ALL VALUES ARE IN MILLIGRAMS PER LITER (mg/L).
- 2. WELLS MKTF-01, MKTF-02, MKTF-04, MKTF-17, AND MKTF-18 WERE PLUGGED, ABANDONED, AND REPLACED THIRD QUARTER 2021.
- 3. WELLS MKTF-20 AND MKTF-21 WERE DRY DURING THIRD QUARTER 2022.



 1252 Commerce Drive Laramie, Wyoming 82070 www.trihydro.com (P) 307/745.7474 (F) 307/745.7729	FIGURE 4B			
	BENZENE CONCENTRATION MAP (SECOND QUARTER 2022)			
	WESTERN REFINING SOUTHWEST LLC D/B/A MARATHON GALLUP REFINERY GALLUP, NEW MEXICO			
Drawn By: REP	Checked By: CF	Scale: 1" = 200'	Date: 3/1/2023	File: 697-AOC35-BENZENEQ2-2022

\\TRIHYRO.COM\CLIENTS\ITON\MARATHON\CADD\GALLUP\REPORTS\AOC\AOC35_MKTF\202302_RESPONSETOAPPWMOD\697-AOC35-MTBE_Q3-2019

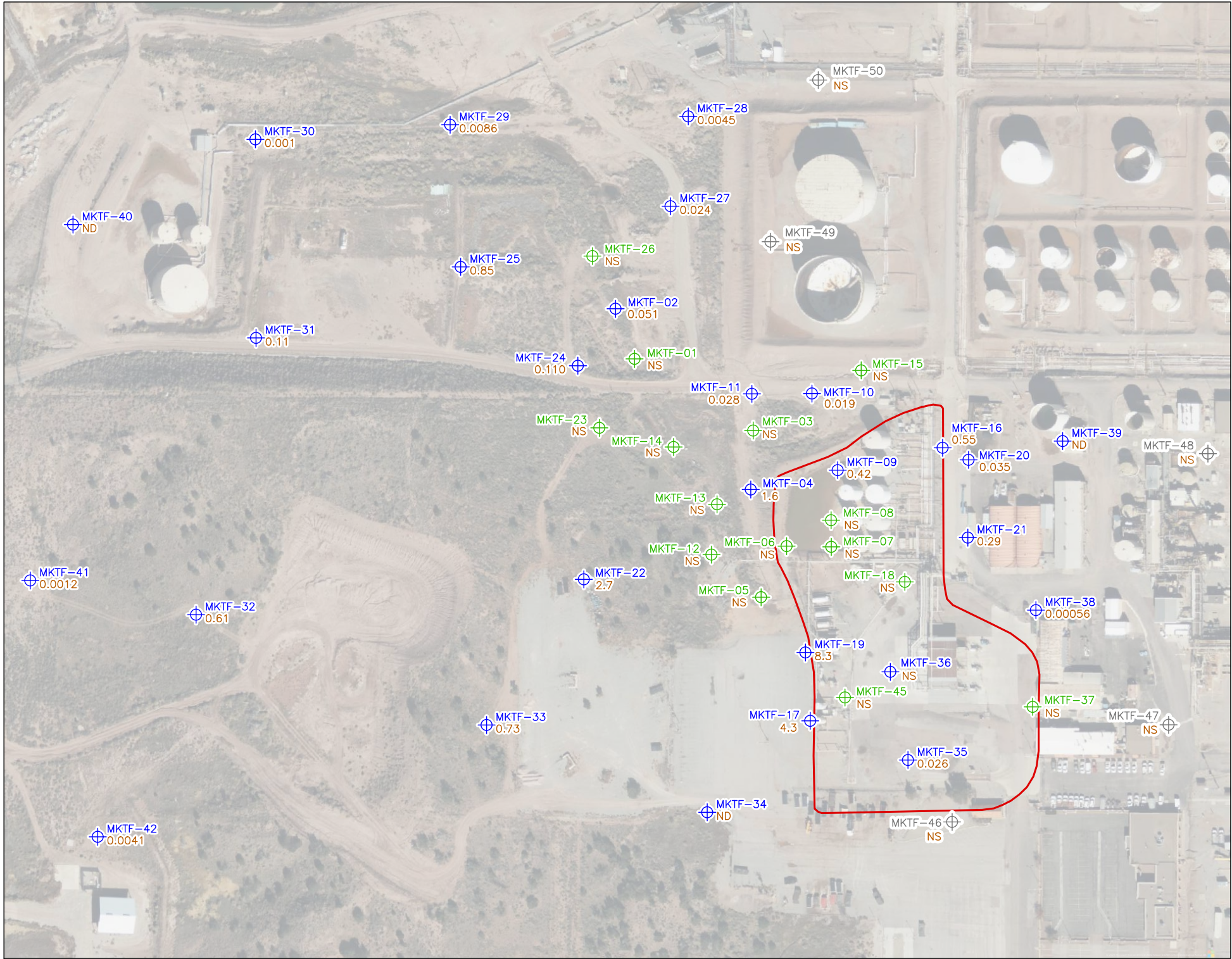


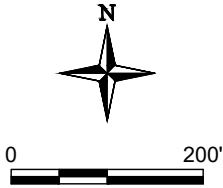
Image Cite: DigitalGlobe © CNES (2022) Distribution Airbus DS © Microsoft Corporation, BING Imagery

EXPLANATION

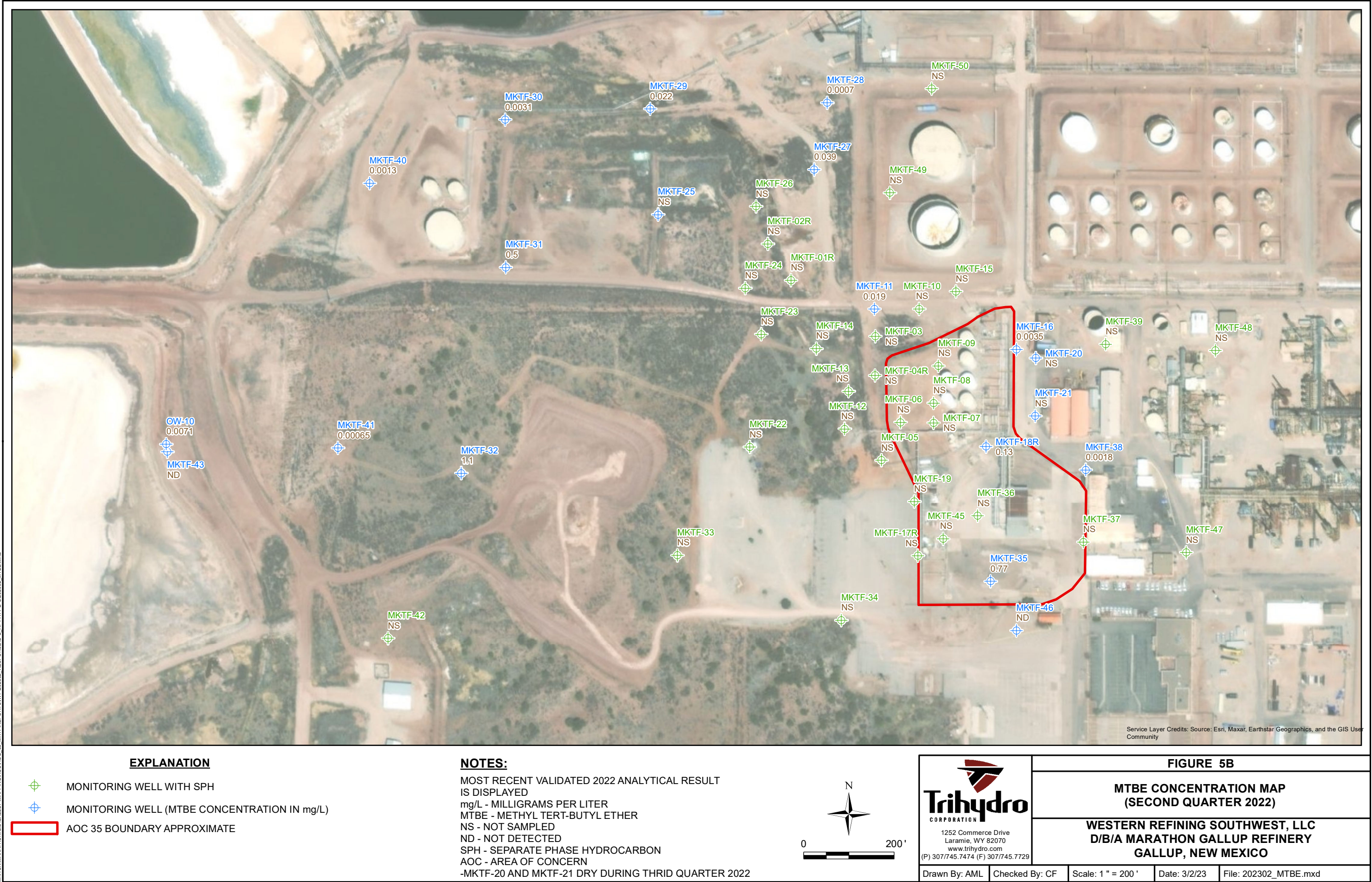
	MKTF-28	CHINLE/ALLUVIUM INTERFACE WELL AND DESIGNATION (SHOWING MTBE CONCENTRATION IN mg/L)
	MKTF-15	MONITORING WELL WITH SPH AND DESIGNATION (SHOWING MTBE CONCENTRATION IN mg/L)
	MKTF-48	MONITORING WELL AND DESIGNATION (WELL INSTALLED DURING 2021)
	AOC 35	BOUNDARY
	AOC	AREA OF CONCERN
	MKTF	METHYL TERT BUTYL ETHER
	ND	NOT DETECTED
	NS	NOT SAMPLED
	SPH	SEPARATE-PHASE HYDROCARBON

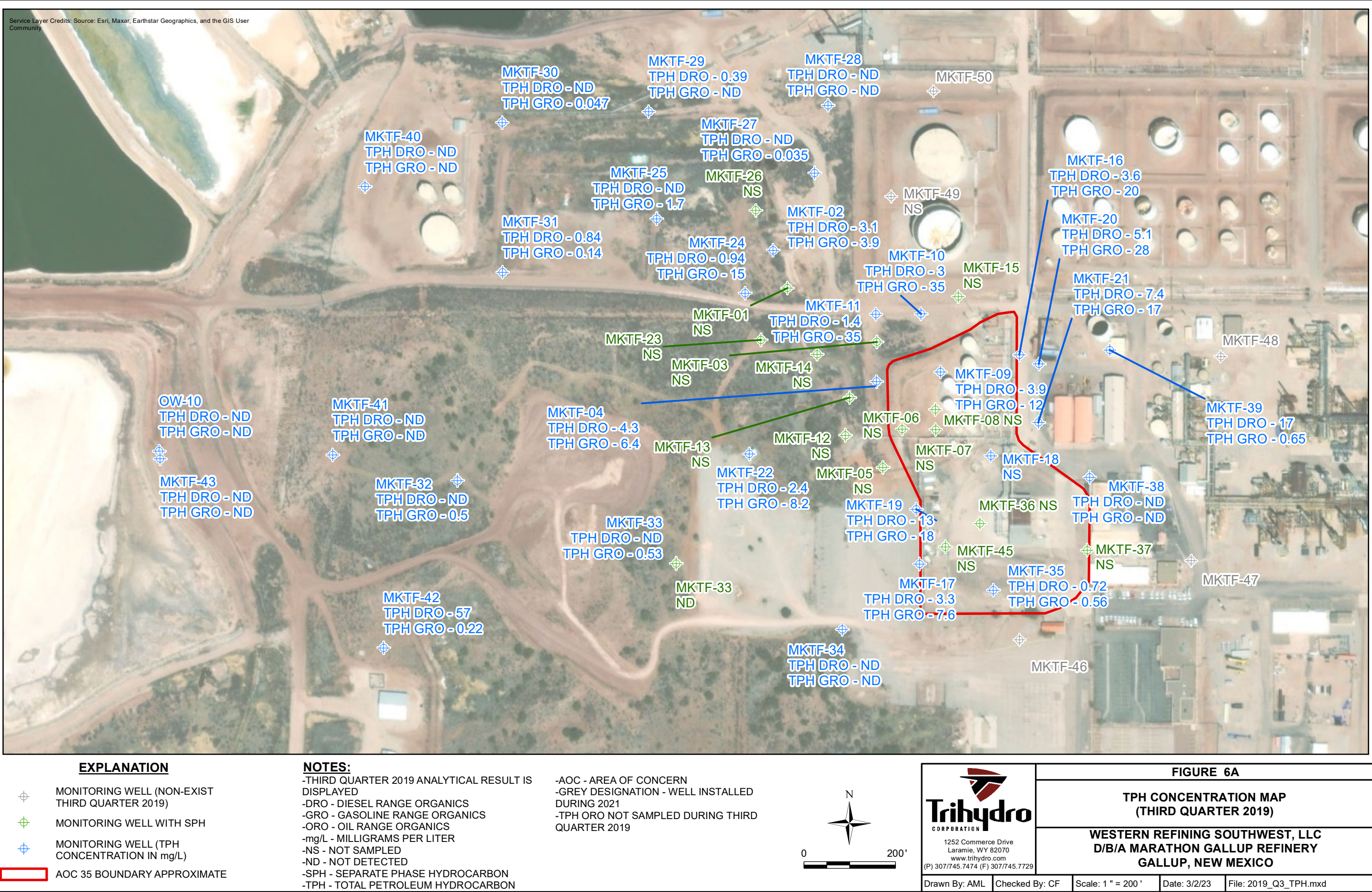
NOTES:

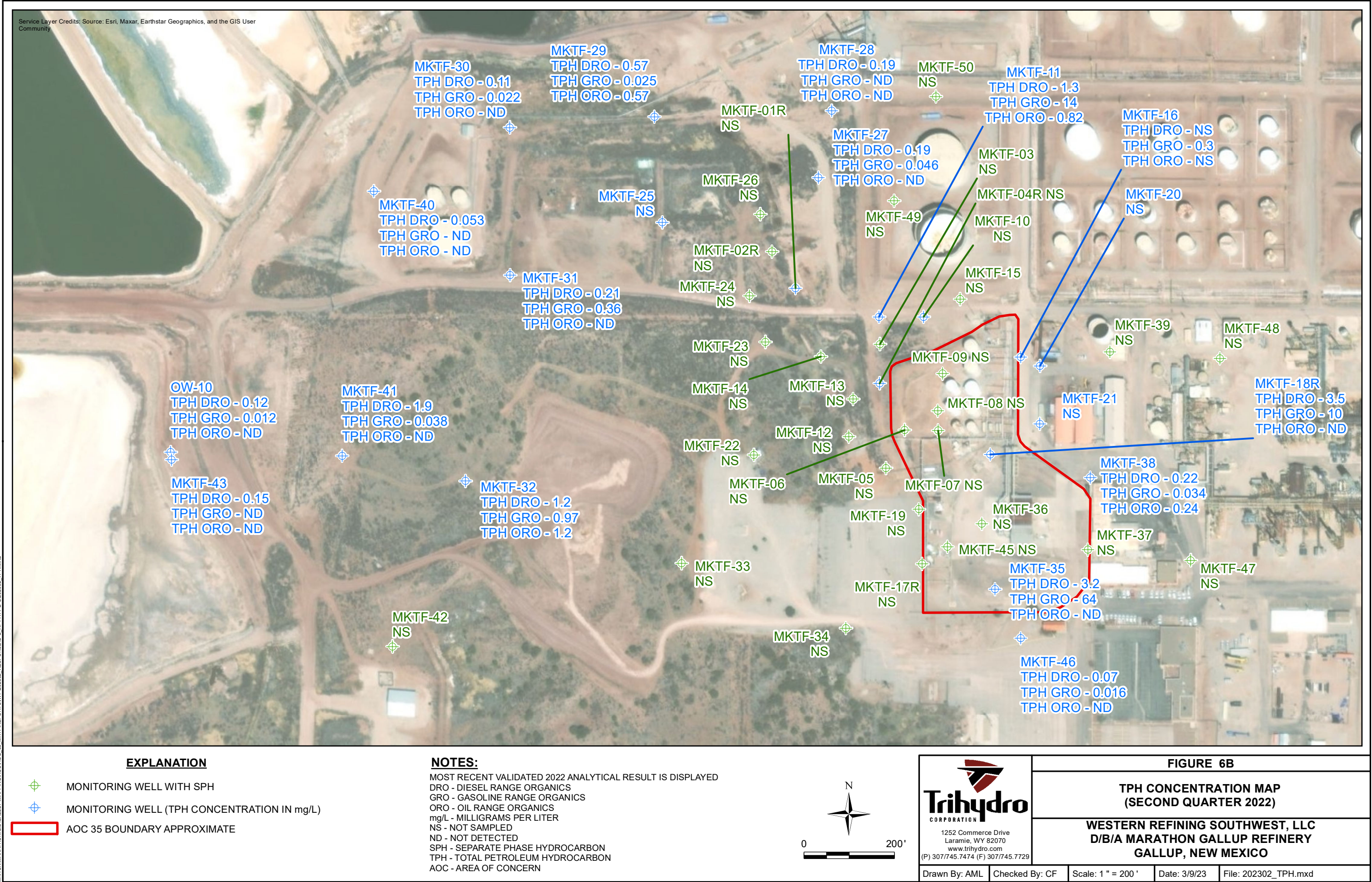
- 1. ALL VALUES ARE IN MILLIGRAMS PER LITER (mg/L).
- 2. WELLS NOTED AS "NA" WERE NOT PRESENT DURING MONITORING EVENT.
- 3. WELL MKTF-36 WAS INACCESSIBLE DURING MONITORING EVENT.



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	MTBE CONCENTRATION MAP (THIRD QUARTER 2019)			
	WESTERN REFINING SOUTHWEST, LLC D/B/A MARATHON GALLUP REFINERY GALLUP, NEW MEXICO			
Drawn By: REP	Checked By: CF	Scale: 1" = 200'	Date: 3/1/2023	File: 697-AOC35-MTBE_Q3-2019







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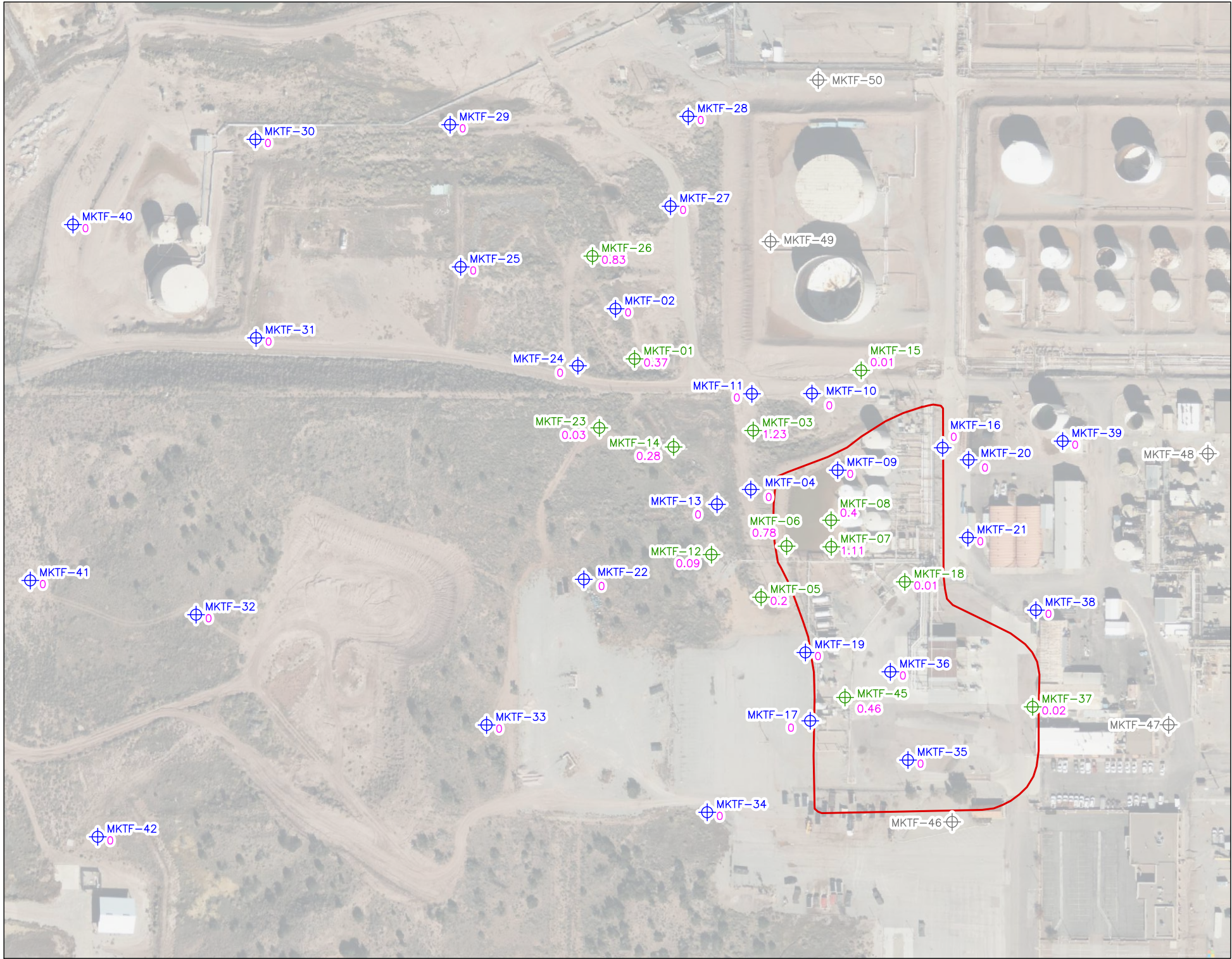
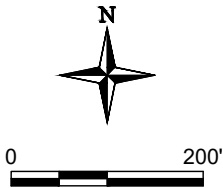


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EXPLANATION

- MKTF-28 CHINLE/ALLUVIUM INTERFACE WELL AND DESIGNATION (SHOWING SPH VALUES)
- MKTF-26 MONITORING WELL WITH SPH AND DESIGNATION (SHOWING SPH VALUES)
- MKTF-48 MONITORING WELL AND DESIGNATION (NON-EXIST THIRD QUARTER 2019)
- AOC 35 BOUNDARY
- AOC AREA OF CONCERN
- ND NOT DETECTED
- NS NOT SAMPLED
- SPH SEPARATE-PHASE HYDROCARBON

NOTE:
WELLS NOTED AS "NA" WERE NOT PRESENT DURING MONITORING EVENT.



 1252 Commerce Drive Laramie, Wyoming 82070 www.trihydro.com (P) 307/745.7474 (F) 307/745.7729	FIGURE 7A			
	SPH THICKNESS MAP (THIRD QUARTER 2019)			
	WESTERN REFINING SOUTHWEST, LLC D/B/A MARATHON GALLUP REFINERY GALLUP, NEW MEXICO			
Drawn By: REP	Checked By: CF	Scale: 1" = 200'	Date: 3/1/2023	File: 697-AOC35-SPH-Q3_2019

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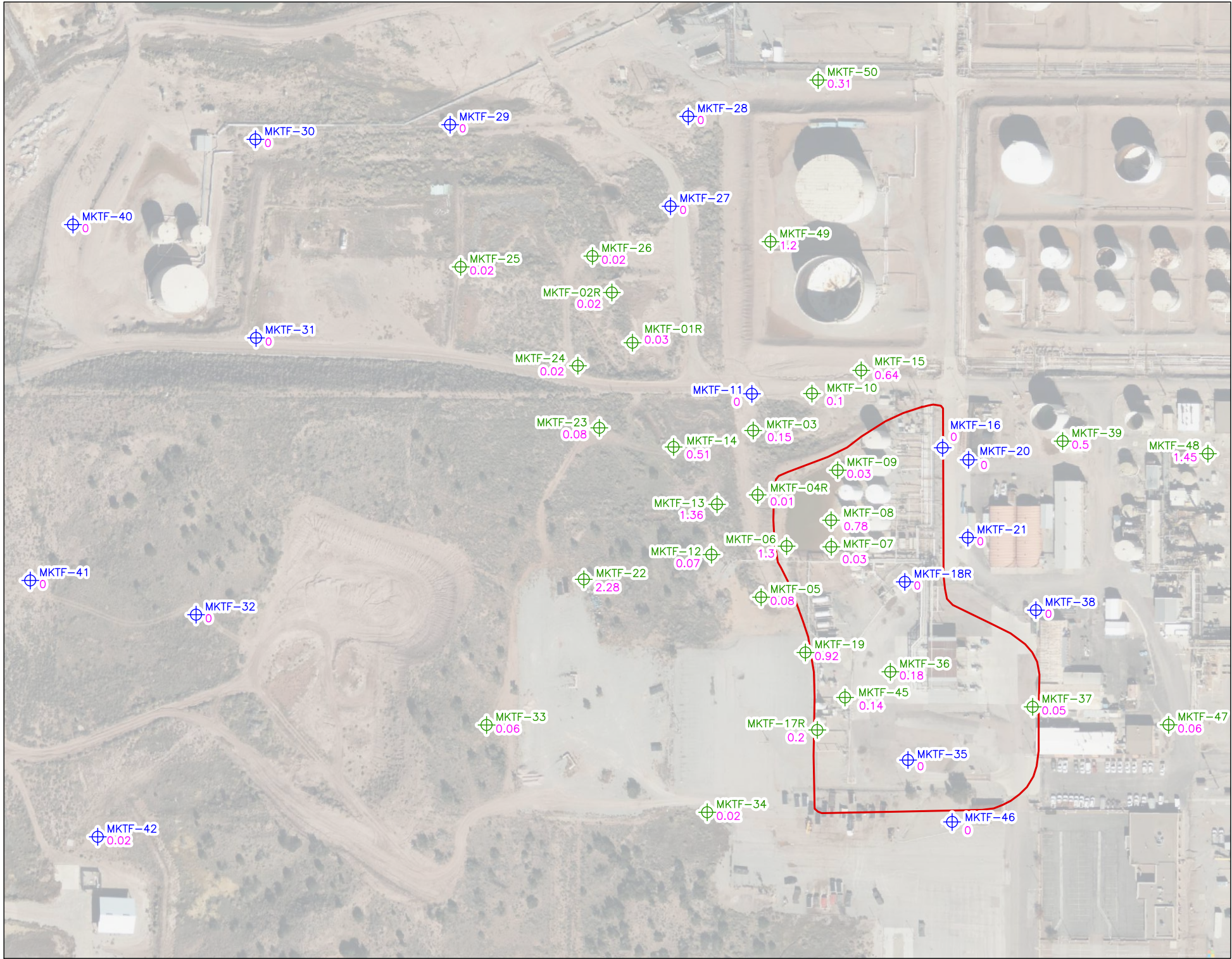


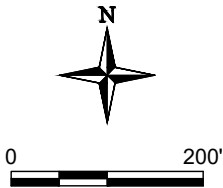
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EXPLANATION

	MKTF-27	CHINLE/ALLUVIUM INTERFACE WELL AND DESIGNATION (SHOWING SPH VALUES)
	MKTF-15	MONITORING WELL WITH SPH AND DESIGNATION (SHOWING SPH VALUES)
	AOC 35	BOUNDARY
ND	AREA OF CONCERN	
NS	NOT DETECTED	
SPH	NOT SAMPLED	
	SEPARATE-PHASE HYDROCARBON	

NOTES:

- 1. WELLS MKTF-01, MKTF-02, MKTF-04, MKTF-17, AND MKTF-18 WERE PLUGGED, ABANDONED, AND REPLACED THIRD QUARTER 2021.
- 2. WELLS MKTF-20 AND MKTF-21 WERE DRY DURING SECOND QUARTER 2022.



 1252 Commerce Drive Laramie, Wyoming 82070 www.trihydro.com (P) 307/745.7474 (F) 307/745.7729	FIGURE 7B			
	SPH THICKNESS MAP (SECOND QUARTER 2022)			
	WESTERN REFINING SOUTHWEST, LLC D/B/A MARATHON GALLUP REFINERY GALLUP, NEW MEXICO			
Drawn By: REP	Checked By: CF	Scale: 1" = 200'	Date: 3/1/2023	File: 697-AOC35-SPH-Q2_2022

\\TRIHYDRO.COM\CLIENTS\TON\MARATHON\CADD\GALLUP\REPORTS\AOC\AOC35_MKTF\202302_RESPONSE\TOAPPWMOD\697-AOC35-LIFLOCS-2023

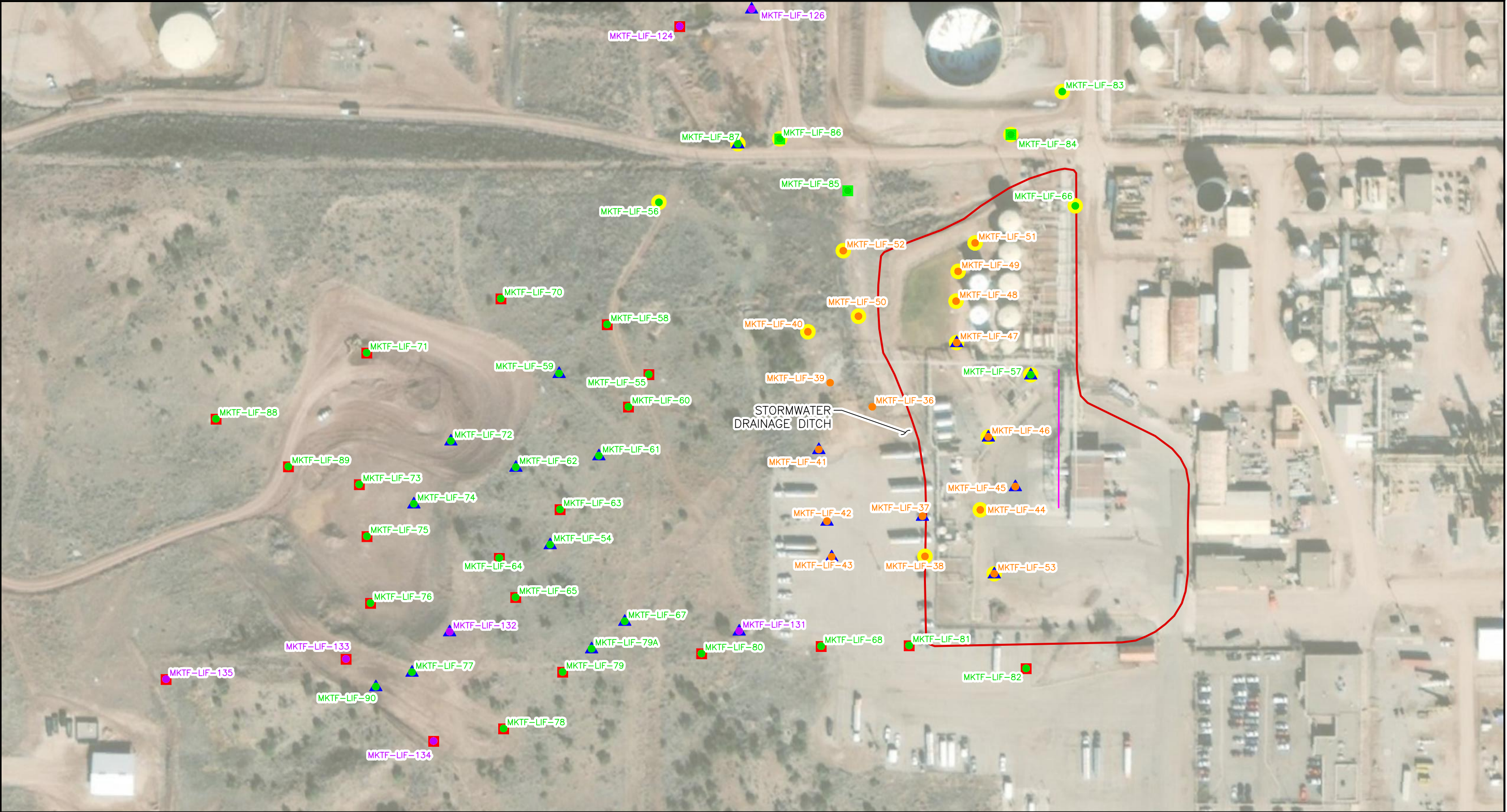
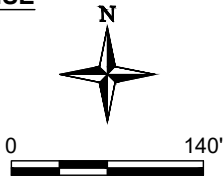


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EXPLANATION		
● MKTF-LIF-135	05/2021 LIF BORING LOCATION	SPH SEPARATE-PHASE HYDROCARBON
● MKTF-LIF-65	02/2021 LIF BORING LOCATION	AOC AREA OF CONCERN
● MKTF-LIF-43	11/2019 LIF BORING LOCATION	LIF LASER INDUCED FLUORESCENCE
—	LEAKY UNDERGROUND TRANSFER LINE	HP HYDRAULIC PROFILING
—	AOC 35 BOUNDARY	

SPH OCCURRENCE BASED ON LIF RESPONSE

- DIESEL
- ▲ GASOLINE
- NAPHTHA
- RESIDUAL/NO RESPONSE





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Drawn By: REP	Checked By: CF	Scale: 1" = 140'	Date: 2/1/2023	File: 697-AOC35-LIFLOCS-2023
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FIGURE 8	
LIF/HP INVESTIGATION LOCATIONS	
WESTERN REFINING SOUTHWEST, LLC D/B/A MARATHON GALLUP REFINERY GALLUP, NEW MEXICO	

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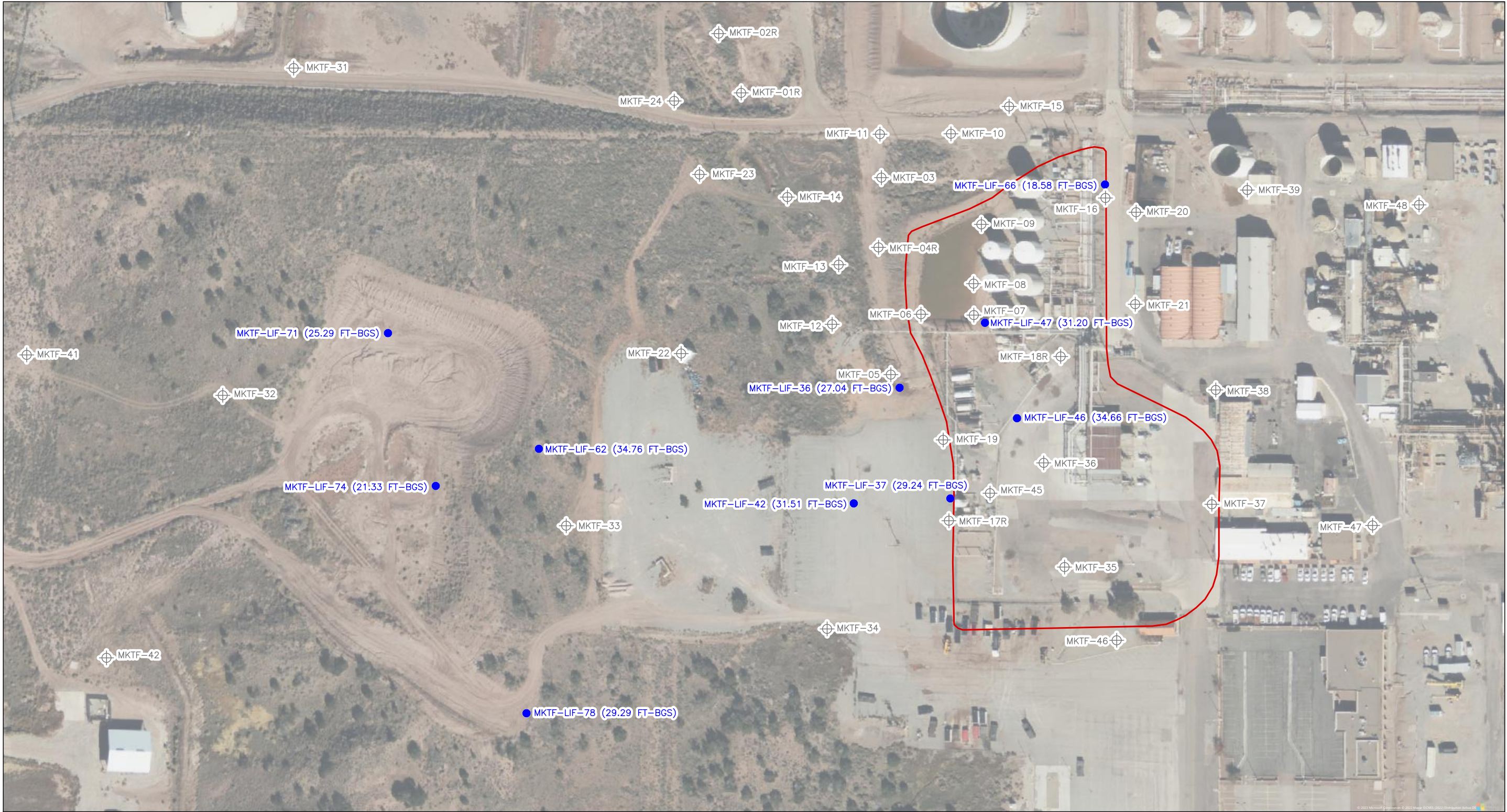
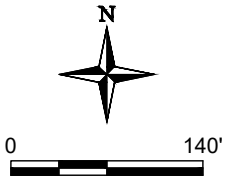


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EXPLANATION

- MKTF-LIF-78 (29.29 FT-BGS) EXISTING LIF/HP BORING AND PROPOSED SOIL SAMPLE LOCATION (DEPTH IN PARENTHESES)
- MKTF-42 MONITORING WELL AND DESIGNATION
- AOC 35 BOUNDARY
- AOC AREA OF CONCERN
- FT-BGS FEET BELOW GROUND SURFACE



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FIGURE 9

PROPOSED INVESTIGATION LOCATIONS

WESTERN REFINING SOUTHWEST, LLC
D/B/A MARATHON GALLUP REFINERY
GALLUP, NEW MEXICO

Drawn By: REP	Checked By: CF	Scale: 1" = 140'	Date: 3/1/2023	File: 697-AOC35-SAMPLOCS-2023
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Revised Investigation Work Plan No. 2

Appendix A - Power Service Safety Data Sheet, Diesel Fuel Additive

**POWER SERVICE PRODUCTS, INC.
SAFETY DATA SHEET****SECTION 1 - IDENTIFICATION****PRODUCT NAME:** DIESEL 9•1•1

Unless otherwise noted, all sections of this MSDS apply to each of the following products and part numbers.

PART NUMBERS:

8016-09, 8025-09, 8025-12, 8080-06, 8050-02, 8055-01, 8260-01 18016-09, 18025-12, 18080-06

COMPANY IDENTIFICATION:

Power Service Products, Inc.
P.O. Box 1089
Weatherford, TX 76086
Email: psp@powerservice.com
Phone: 800/643-9089 or 817-599-9486
Fax: 817-599-4893

Emergency Phone Number: Within USA 1-800-424-9300. Outside USA 001-703-527-3887 (Call Collect).

RECOMMENDED USES: Diesel fuel additive

SECTION 2 - HAZARD(S) IDENTIFICATION**CLASSIFICATION UNDER 29 CFR 1910.1200(d)**

(NC=product does not meet classification criteria)

Health Hazard Criteria	Category
Acute Toxicity, Oral:	NC
Acute Toxicity, Dermal:	NC
Acute Toxicity, Inhalation, Vapors:	NC
Skin Corrosion/Irritation:	2
Serious Eye Damage/Eye Irritation:	2
Respiratory Sensitization:	NC
Skin Sensitization:	NC
Germ Cell Mutagenicity:	NC

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Health Hazard Criteria	Category
Carcinogenicity:	NC
Reproductive Toxicity:	NC
Specific Target Organ Toxicity, Single Exposure:	3
Specific Target Organ Toxicity, Repeated or Prolonged Exposure:	NC
Aspiration Hazard:	1

Physical Properties Criteria	Category
Explosives:	NC
Flammable Gases:	NC
Flammable Aerosols:	NC
Oxidizing Gases:	NC
Gases Under Pressure:	NC
Flammable Liquids:	3
Flammable Solids:	NC
Self-Reactive Chemicals:	NC
Pyrophoric Liquids:	NC
Pyrophoric Solids:	NC
Self-Heating Chemicals:	NC
Chemicals Which, in Contact with Water, Emit Flammable Gases:	NC
Oxidizing Liquids:	NC
Oxidizing Solids:	NC
Organic Peroxides:	NC
Corrosive to Metals:	NC

LABEL SIGNAL WORD, HAZARD STATEMENTS, SYMBOLS AND PRECAUTIONARY STATEMENTS UNDER 29 CFR 1910.1200(f):

Please see the Note regarding product labeling in Section 16.

Signal Word(s): **Danger**

Hazard Statement(s): Flammable liquid and vapor. May be fatal if swallowed and enters airways. Causes skin and serious eye irritation. May cause respiratory irritation.

Symbols:



Precautionary Statement(s): Keep away from sparks and open flames. No smoking. Keep container tightly closed. Use only non-sparking tools. Ground/Bond container and receiving equipment. Use explosion-proof pumps when pumping. Take precautionary measures against static discharge. Avoid breathing vapors. Use only outdoors or in a well-ventilated area. Wash

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hands thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves and eye protection. Store locked up and in cool, well ventilated place. KEEP OUT OF REACH OF CHILDREN.

Hazards Not Otherwise Classified: None

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

The specific chemical identity and exact concentration percentage has been withheld as a Trade Secret. Specific chemical information will be made available to health professionals in accordance with 29 CFR 1910.1200.

INGREDIENTS CLASSIFIED AS HEALTH HAZARDS

Chemical Name	Common Name/Synonyms	CAS Number	Concentration (%)
Aliphatic hydroxy hydrocarbons	Trade secret	Trade secret	20 - 90
Petroleum Distillates	Trade secret	Trade secret	10 - 30

SECTION 4 - FIRST AID MEASURES

As a precaution, exposure to liquids, vapors, mists and fumes should be minimized.

EYE CONTACT: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice.

SKIN CONTACT: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs get medical advice/attention.

INHALATION: Remove person to fresh air and keep comfortable for breathing. Call a doctor.

INGESTION: If swallowed, IMMEDIATELY call a doctor. Do NOT induce vomiting.

SECTION 5 - FIRE AND EXPLOSION HAZARD DATA

EXTINGUISHING MEDIA: Use water fog, alcohol-resistant foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

SPECIFIC HAZARDS: Vapors are heavier than air and may travel along the ground to a distant ignition source and flash back. See Section 10 for Stability and Reactivity. **NOTE:** EMPTY CONTAINERS CONTAIN COMBUSTIBLE VAPORS THAT CAN CAUSE FLASH FIRES OR EXPLOSIONS. CONTAINERS ARE SINGLE-TRIP CONTAINERS AND SHOULD NOT BE USED FOR ANY REASON AFTER BEING EMPTIED. DO NOT USE CUTTING TORCH

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EQUIPMENT OR ANY OTHER FLAME OR OTHER SOURCES OF IGNITION ON ANY EMPTY CONTAINER.

PROTECTIVE EQUIPMENT AND PRECAUTIONS: Use standard protective equipment including self-contained breathing apparatus (SCBA).

SECTION 6 - ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES: Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas. Eliminate all sources of ignition in the vicinity of the spill or released vapor. See Section 2 for Hazards Identification. See Section 4 for First Aid Measures. See Section 5 for Fire Fighting Information. See Section 8 for Personal Protective Equipment.

SPILL CONTAINMENT AND CLEAN-UP: Eliminate potential sources of ignition. Stop leak if it can be done without risk. Dike and contain spill. Do not touch or walk through spilled material. Prevent entry into waterways, sewer, basements or confined areas. Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly. A vapor suppressing foam may be used to reduce vapors. Local, state and federal laws and/or regulations may apply to releases and disposal of this material, as well as those materials and items employed in the clean-up releases. The user/responder will need to determine which local, state and federal laws and/or regulations are applicable. The National Response Center can be reached at 1-800-424-8802.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Avoid contact with eyes and skin. Use only with adequate ventilation. Use proper bonding and/or grounding procedures. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). Keep away from ignition sources such as heat, sparks, and flames. No smoking.

CONDITIONS FOR SAFE STORAGE: DO NOT USE OR STORE near heat, sparks, or flame. USE AND STORE ONLY IN A WELL-VENTILATED AREA. Handle containers with care. Keep container closed when not in use. Store locked up.

STORAGE TEMPERATURE: -40°F to 100°F (-40°C to 38°C)

EMPTY CONTAINER WARNING: EMPTY CONTAINERS MAY CONTAIN FLAMMABLE VAPORS AND CAN BE DANGEROUS. SEE SECTION 5 FOR FIRE AND EXPLOSION HAZARD DATA.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

	CAS #	OSHA	ACGIH		NIOSH			Note
		PEL	TLV	STEL	REL	STEL	IDLH	
Ethylbenzene	100-41-4	100 ppm	20 ppm	not est.	100 ppm	125 ppm	800 ppm (LEL)	n/a
Xylene, mixed isomers	1330-20-7	100 ppm	100 ppm	150 ppm	100 ppm	150 ppm	900 ppm (LEL)	n/a
Cumene	98-82-8	50 ppm	50 ppm	not est.	50 ppm	not est.	900 ppm (LEL)	Skin
Petroleum Distillates	n/a	500 ppm	not est.	not est.	not est.	not est.	not est.	n/a

ENGINEERING CONTROLS: The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Local exhaust ventilation is recommended to control exposure.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

Eyes and Face: Eye protection such as safety glasses or chemical goggles is recommended if contact is likely.

Skin: If prolonged or repeated skin contact is likely, chemical/oil resistant clothing and gloves are recommended. Wear additional protective clothing as appropriate.

Respiratory: Wear a NIOSH/MSHA approved respirator as necessary.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Practice good housekeeping.

NOTE: These precautions are for room temperature handling.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid, straw yellow
Odor	Strong solvent
Odor Threshold	Not available
pH	Not applicable
Melting point/Freezing point	Not available
Initial Boiling Point and Boiling Range	187.7°F (86.5°C)
Flash Point	74°F (TCC) 23°C
Evaporation Rate	Not available
Flammability	Not available
Upper / lower Flammability or Explosive Limits	Not available
Vapor Pressure	Not available

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Vapor Density	Not available
Relative Density/Specific Gravity (at 60°F)	0.8400
Solubility	Not available
Partition Coefficient; n-octanol / water	Not available
Auto-ignition Temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Pour Point	<-159°F (-106°C)

SECTION 10 - STABILITY AND REACTIVITY

REACTIVITY: see Incompatible Materials below

CHEMICAL STABILITY: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

CONDITIONS TO AVOID: Flames, high energy ignition sources, and elevated temperatures.

INCOMPATIBLE MATERIALS: May react with oxygen, oxidizing agents, such as; chlorates, nitrates, peroxides, etc., amines, caustics, alkanolamines halogens, chlorine.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon oxides, products of incomplete combustion.

HAZARDOUS POLYMERIZATION:
Hazardous polymerization will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

LIKELY ROUTES OF EXPOSURE

INGESTION	INHALATION	SKIN CONTACT	EYE CONTACT	SKIN ABSORPTION
	X	X	X	X

SYMPTOMS RELATED TO PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS: Breathing of high vapor concentrations may cause dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness. The vapor or fumes from this material may cause respiratory irritation. Breathing this material at elevated concentrations causes central nervous system effects. Central nervous system effects may include headache, dizziness, nausea, vomiting, weakness, loss of coordination, blurred vision, drowsiness, confusion or disorientation. At extreme exposures, central nervous system effects may include respiratory depression, tremors, or convulsions, loss of consciousness, coma or death.

DELAYED AND IMMEDIATE EFFECTS AND CHRONIC EFFECTS FROM SHORT- AND LONG-TERM EXPOSURE: Repeated skin exposure to a component of this product may cause

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irritation, even a burn; may cause a more severe response on covered skin, such as under clothing or gloves. Inhalation exposure to a component of this product has caused fetotoxicity in the presence of maternal toxicity in animals.

NUMERICAL MEASURES OF TOXICITY

Note: the information provided below are estimates; testing of the product is not available.

Acute Oral Toxicity (ATE _{mix} estimate)	Acute Dermal Toxicity (ATE _{mix} estimate)	Acute Inhalation (ATE _{mix} estimate)
Does not meet criteria	Does not meet criteria	Does not meet criteria

SENSITIZATION: No information available.

MUTAGENICITY: No information available.

CARCINOGENICITY LISTINGS – the following chemicals are listed as indicated:

Chemical	List
Cumene	IARC, NTP
Ethylbenzene	IARC

REPRODUCTIVE TOXICITY: No information available.

TERATOGENICITY/EMBRYOTOXICITY: This product contains a component of a complex mixture (Xylenes (1330-20-7)) that has been shown to cause teratogenicity and/or embryotoxicity.

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE): Respiratory tract irritation.

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE): No information available

ASPIRATION HAZARD: Aspiration hazard identified.

SECTION 12 - ECOLOGICAL INFORMATION

ECOTOXICITY:

This material is expected to be toxic to aquatic organisms.

PERSISTENCE AND DEGRADABILITY: No information available.

BIOACCUMULATIVE POTENTIAL: No information available.

MOBILITY IN SOIL: No information available.

OTHER ADVERSE EFFECTS: No information available.

SECTION 13 - DISPOSAL CONSIDERATIONS

RCRA Information: Disposal of unused product may be subject to RCRA hazardous waste regulations (40 CFR Part 261). Disposal of the used product may also be regulated as hazardous waste due to resulting mixture characteristics, mixture components or product use. Such changes to the product may result in different and/or additional hazardous waste codes. Potential RCRA waste code based on the product as shipped: D001 IGNITABILITY.

State or local laws may impose additional regulatory requirements regarding disposal. *Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.*

EMPTY CONTAINER WARNING: EMPTY CONTAINERS MAY CONTAIN FLAMMABLE VAPORS AND CAN BE DANGEROUS. SEE SECTION 5 FOR FIRE AND EXPLOSION HAZARD DATA.

SECTION 14 - TRANSPORTATION INFORMATION

The following part numbers are classified as Limited Quantities:

8016-09, 8025-09, 8025-12, 8080-06, 18016-09, 18025-12, 18080-06

The following part numbers are regulated by DOT:

8050-02, 8055-01, 8260-01

PROPER SHIPPING NAME: Flammable Liquid, N.O.S., (Aliphatic Hydroxy Hydrocarbons)

HAZARD CLASS: 3

I.D. NUMBER: UN 1993

PACKING GROUP: III

PLACARDING: Flammable Liquid

Air shipment is not recommended.

SECTION 15 - REGULATORY INFORMATION**§14(a) Consumer Product Safety Act General Certificate of Conformity**

Power Service Products, Inc. certifies that this product meets the statutory and regulatory requirements of the US Consumer Products Safety Act, the Federal Hazardous Substances Act, and the Poison Prevention Packaging Act of 1970, as applicable. The Power Service products are manufactured in the United States in Weatherford, Texas, unless otherwise indicated on the product label. The product manufacture lot code is stamped on the product container. This Certification is based upon a reasonable testing program conducted by Power Service Products, Inc. which includes a quality control program incorporating, as necessary, confirmation of compliance by component suppliers. Third-party testing is not required to certify compliance.

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Supersedes: September 28, 2015

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Further details may be obtained by contacting the Power Service Products, Inc. EHS Manager at 1-800-643-9089.

Contents of this SDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200

TSCA STATUS:

All chemical substances found in this product comply with the Toxic Substances Control Act inventory reporting requirements.

EPA SARA TITLE III CHEMICAL LISTINGS:

Section 302 Extremely Hazardous Substances: None

Sections 311/ 312 Hazard Class:

Acute Health Effects: Yes Sudden Release of Pressure Hazard: No
Chronic Health Effects: Yes Reactivity Hazard: No
Fire Hazard: Yes

NFPA (NATIONAL FIRE PROTECTION ASSOCIATION) RATING:

HEALTH: 2

FIRE: 3

REACTIVITY: 0

Section 313:

Specific chemical information is being withheld as a Trade Secret. The following chemicals subject to the reporting requirements of EPCRA Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (40 CFR Part 372) may be present in this product at a concentration that does not exceed the specified upper weight percentage.

CAS Number	Chemical Name	Max %
100-41-4	Ethylbenzene	10.0
1330-20-7	Xylene, mixed isomers	3.0

State or local laws may impose additional regulatory requirements for components of this material. It is the responsibility solely of the Employer to maintain compliance with State and Local reporting.

CA Proposition 65

 **WARNING:** Cancer and Reproductive Harm – www.P65Warnings.ca.gov.

SECTION 16 – OTHER INFORMATION

DATE OF PREPARATION / REVISION: January 6, 2017

Revised: January 6, 2017

Supersedes: September 28, 2015

POWER SERVICE DIESEL 9•1•1

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NOTE regarding product labeling: The OSHA Hazard Communication Standard applies to hazardous chemicals known to be present in the workplace. However, the labeling and Safety Data Sheet requirements do not apply to consumer products when they are used in the workplace for the purposes intended by the manufacturer and the use results in a duration and frequency of exposure which is not greater than the range of exposures that could reasonably be experienced by consumers when used for the intended purpose. Power Service Products intends for product packaged in 1 gallon or smaller containers to be used by consumers and has labeled those containers as required under the Consumer Product Safety Commission regulations. Power Service Products intends for product packaged in containers larger than 1 gallon to be used in the workplace and has labeled those products as required by the OSHA Hazard Communication Standard. The Consumer Product Safety Commission and OSHA Hazard Communication Standard labeling requirements are different and variations between the consumer and industrial labels may occur. It is the employer's responsibility to purchase the appropriate product for use in the workplace.

The information contained herein is offered in good faith and is believed to be accurate based on the data available to us as of the date of SDS preparation. The information in this document applies to this specific product as supplied. It may not be appropriate for this product if the product is used in combination with other materials. The information in this document is not intended to constitute product performance information. Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product. No statement shall be construed as an endorsement of any product or process. The recommended industrial hygiene and safe handling procedures are believed to be valid in the context of the intended use as described in product labeling. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate. You are urged to obtain material safety data sheets for all products you buy, process, use or distribute, and are encouraged to advise those who may come in contact with such products of the information contained therein. Regulatory requirements are subject to change and may differ between locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. No warranty or guarantee is expressed or implied with respect to this product, the accuracy and sufficiency of the data or recommendations herein, or the results to be obtained from the use of this product. IN NO EVENT SHALL POWER SERVICE PRODUCTS, INC. BE LIABLE FOR ANY LOSS, CLAIM, DAMAGE OR LIABILITY OF ANY KIND, WHICH MAY ARISE FROM OR IN CONNECTION WITH THE INFORMATION CONTAINED IN THIS DOCUMENT OR FROM THE USE, HANDLING OR STORAGE OF THE PRODUCT BY THE BUYER/USER, WHETHER DIRECT, INDIRECT, OR CONSEQUENTIAL, OR FOR ANY CLAIM BY ANY THIRD PARTY, BEYOND THE PURCHASE PRICE OR REPLACEMENT OF THE PRODUCT IN CONNECTION WITH WHICH SUCH LOSS, CLAIM, DAMAGE OR LIABILITY AROSE.

THE FOREGOING LIMITATIONS APPLY REGARDLESS OF THE CAUSES OR CIRCUMSTANCES GIVING RISE TO SUCH LOSS, CLAIM, DAMAGE OR LIABILITY, EVEN IF SUCH LOSS, CLAIM, DAMAGE, OR LIABILITY IS BASED ON NEGLIGENCE OR OTHER TORTS OR BREACH OF CONTRACT.



Revised Investigation Work Plan No. 2

Appendix B - Fluid Levels

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
11/14/13	MKTF-01	03/11/15	4.00	17.42	ND	NA	5.85	6,914.82	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-01	06/09/15	4.00	17.42	ND	0.00	7.15	6,913.52	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-01	08/21/15	4.00	17.42	ND	0.00	6.23	6,914.44	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-01	11/04/15	4.00	17.42	ND	0.00	5.87	6,914.80	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-01	02/24/16	4.00	17.42	ND	0.00	5.84	6,914.83	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-01	06/10/16	4.00	17.42	ND	0.00	7.02	6,913.65	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-01	09/07/16	4.00	17.42	7.12	1.50	8.62	6,912.05	6,913.25	5 - 15	Chinle/Alluvium Interface
	MKTF-01	11/04/16	4.00	17.42	ND	0.00	5.87	6,914.80	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-01	03/14/17	4.00	17.42	4.65	0.16	4.81	6,915.86	6,915.99	5 - 15	Chinle/Alluvium Interface
	MKTF-01	06/07/17	4.00	17.42	4.89	0.53	5.42	6,915.25	6,915.67	5 - 15	Chinle/Alluvium Interface
	MKTF-01	10/03/17	4.00	17.42	6.20	0.36	6.56	6,914.11	6,914.40	5 - 15	Chinle/Alluvium Interface
	MKTF-01	11/20/17	4.00	17.42	4.62	0.33	4.95	6,915.72	6,915.98	5 - 15	Chinle/Alluvium Interface
	MKTF-01	02/07/18	4.00	17.42	5.05	0.35	5.40	6,915.27	6,915.55	5 - 15	Chinle/Alluvium Interface
	MKTF-01	04/25/18	4.00	17.35	6.22	0.30	6.52	6,914.15	6,914.39	5 - 15	Chinle/Alluvium Interface
	MKTF-01	08/15/18	4.00	17.27	6.40	0.31	6.71	6,913.96	6,914.21	5 - 15	Chinle/Alluvium Interface
	MKTF-01	11/27/18	4.00	17.42	5.50	0.37	5.87	6,914.80	6,915.10	5 - 15	Chinle/Alluvium Interface
	MKTF-01	02/19/19	4.00	17.42	4.40	0.34	4.74	6,915.93	6,916.20	5 - 15	Chinle/Alluvium Interface
	MKTF-01	05/06/19	4.00	17.42	4.39	0.35	4.74	6,915.93	6,916.21	5 - 15	Chinle/Alluvium Interface
	MKTF-01	08/30/19	4.00	17.42	4.58	0.37	4.95	6,915.72	6,916.02	5 - 15	Chinle/Alluvium Interface
	MKTF-01	11/19/19	4.00	17.42	5.14	0.31	5.45	6,915.22	6,915.47	5 - 15	Chinle/Alluvium Interface
	MKTF-01	02/24/20	4.00	17.42	4.87	0.29	5.16	6,915.51	6,915.74	5 - 15	Chinle/Alluvium Interface
	MKTF-01	06/26/20	4.00	17.42	5.50	0.21	5.71	6,914.96	6,915.13	5 - 15	Chinle/Alluvium Interface
	MKTF-01	09/15/20	4.00	17.48	5.61	0.01	5.62	6,915.05	6,915.06	5 - 15	Chinle/Alluvium Interface
	MKTF-01	11/10/20	4.00	17.48	5.61	0.28	5.89	6,914.78	6,915.00	5 - 15	Chinle/Alluvium Interface
	MKTF-01	12/03/20	4.00	17.43	5.74	0.28	6.02	6,914.65	6,914.87	5 - 15	Chinle/Alluvium Interface
	MKTF-01	01/28/21	4.00	17.43	7.60	0.48	5.69	6,912.59	6,912.97	5 - 15	Chinle/Alluvium Interface
	MKTF-01	02/28/21	4.00	17.45	5.70	0.23	3.54	6,914.74	6,914.92	5 - 15	Chinle/Alluvium Interface
	MKTF-01	03/31/21	4.00	17.45	6.09	0.24	3.94	6,914.34	6,914.53	5 - 15	Chinle/Alluvium Interface
	MKTF-01	04/26/21	4.00	17.45	5.88	0.34	3.83	6,914.45	6,914.72	5 - 15	Chinle/Alluvium Interface
	MKTF-01	05/20/21	4.00	17.45	6.41	0.36	4.38	6,913.90	6,914.19	5 - 15	Chinle/Alluvium Interface
	MKTF-01	06/01/21	4.00	17.38	5.81	0.31	3.73	6,914.55	6,914.80	5 - 15	Chinle/Alluvium Interface
	MKTF-01	07/06/21	4.00	17.38	5.74	0.44	3.79	6,914.49	6,914.84	5 - 15	Chinle/Alluvium Interface
07/22/21	MKTF-01R	08/31/21	4.00	18.00	ND	NA	3.60	6,918.22	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-01R	09/09/21	4.00	18.00	ND	NA	3.72	6,918.10	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-01R	10/27/21	4.00	18.00	ND	NA	3.92	6,917.90	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-01R	11/17/21	4.00	18.00	ND	NA	3.81	6,918.01	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-01R	12/03/21	4.00	18.10	ND	NA	3.55	6,918.27	NA	3 - 18	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-01R	01/28/22	4.00	18.10	ND	NA	3.50	6,918.32	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-01R	02/28/22	4.00	18.10	ND	NA	3.60	6,918.22	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-01R	03/01/22	4.00	18.11	ND	NA	3.56	6,918.26	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-01R	04/27/22	4.00	18.11	ND	NA	3.50	6,918.32	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-01R	05/05/22	4.00	18.11	ND	NA	3.51	6,918.33	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-01R	06/01/22	4.00	18.11	3.30	0.03	3.53	6,918.29	6918.31	3 - 18	Chinle/Alluvium Interface
	MKTF-01R	07/06/22	4.00	18.11	3.60	0.07	3.87	6,917.95	6918.01	3 - 18	Chinle/Alluvium Interface
	MKTF-01R	08/08/22	4.00	18.11	3.42	0.03	3.65	6,918.17	6918.19	3 - 18	Chinle/Alluvium Interface
	MKTF-01R	09/01/22	4.00	18.11	3.42	0.03	3.65	6,918.17	6918.19	3 - 18	Chinle/Alluvium Interface
07/22/21	MKTF-01R	10/03/22	4.00	18.11	3.45	0.03	3.68	6,918.14	6918.16	3 - 18	Chinle/Alluvium Interface
	MKTF-01R	11/02/22	4.00	18.11	3.47	0.04	3.71	6,918.11	6918.14	3 - 18	Chinle/Alluvium Interface
	MKTF-01R	12/06/22	4.00	18.11	3.49	0.06	3.75	6,918.07	6918.12	3 - 18	Chinle/Alluvium Interface
11/14/13	MKTF-02	03/11/15	4.00	20.48	ND	0.00	4.43	6,910.57	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	06/09/15	4.00	20.48	ND	0.00	5.10	6,909.90	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	08/21/15	4.00	20.48	ND	0.00	4.85	6,910.15	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	11/04/15	4.00	20.48	ND	0.00	4.80	6,910.20	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	02/24/16	4.00	20.48	ND	0.00	4.77	6,910.23	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	06/10/16	4.00	20.48	ND	0.00	5.64	6,909.36	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	09/07/16	4.00	20.48	ND	0.00	5.83	6,909.17	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	11/04/16	4.00	20.48	ND	0.00	4.80	6,910.20	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	03/16/17	4.00	20.48	ND	0.00	4.89	6,910.11	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	06/07/17	4.00	20.48	7.10	0.01	4.66	6,910.34	6,910.35	7 - 17	Chinle/Alluvium Interface
	MKTF-02	10/03/17	4.00	20.48	ND	0.00	4.22	6,910.78	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	11/20/17	4.00	20.35	ND	0.00	4.55	6,910.45	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	02/06/18	4.00	20.34	ND	0.00	4.99	6,910.01	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	04/25/18	4.00	20.36	ND	0.00	5.50	6,909.50	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	08/15/18	4.00	20.43	ND	0.00	5.95	6,909.05	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	11/27/18	4.00	20.35	ND	0.00	5.95	6,909.05	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	03/28/19	4.00	20.48	ND	0.00	3.89	6,911.11	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	05/06/19	4.00	20.48	ND	0.00	3.79	6,911.21	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	08/23/19	4.00	20.43	ND	0.00	4.60	6,910.40	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	11/19/19	4.00	20.35	ND	0.00	4.69	6,910.31	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	02/24/20	4.00	20.48	ND	0.00	4.07	6,910.93	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	06/26/20	4.00	20.48	ND	0.00	5.25	6,909.75	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	09/15/20	4.00	20.54	ND	0.00	5.43	6,909.57	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	11/10/20	4.00	20.54	ND	0.00	4.98	6,910.02	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	12/03/20	4.00	20.54	ND	0.00	5.27	6,909.73	NA	7 - 17	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-02	01/28/21	4.00	20.54	ND	NA	5.30	6,909.70	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	02/28/21	4.00	20.54	ND	NA	4.69	6,910.31	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	03/31/21	4.00	20.54	ND	NA	5.39	6,909.61	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	04/26/21	4.00	20.54	ND	NA	5.33	6,909.67	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	05/20/21	4.00	20.54	ND	NA	5.66	6,909.34	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	06/01/21	4.00	20.54	ND	NA	5.57	6,909.43	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-02	07/06/21	4.00	20.54	ND	NA	5.63	6,909.37	NA	7 - 17	Chinle/Alluvium Interface
07/22/21	MKTF-02R	08/31/21	4.00	21.50	ND	NA	13.63	6,906.83	NA	6.5 - 21.5	Chinle/Alluvium Interface
	MKTF-02R	09/17/21	4.00	21.50	ND	NA	14.11	6,906.35	NA	6.5 - 21.5	Chinle/Alluvium Interface
	MKTF-02R	10/27/21	4.00	21.50	ND	NA	10.48	6,909.98	NA	6.5 - 21.5	Chinle/Alluvium Interface
	MKTF-02R	11/17/21	4.00	21.50	ND	NA	9.01	6,911.45	NA	6.5 - 21.5	Chinle/Alluvium Interface
	MKTF-02R	12/15/21	4.00	21.49	ND	NA	7.71	6,912.75	NA	6.5 - 21.5	Chinle/Alluvium Interface
	MKTF-02R	01/10/22	4.00	21.49	ND	NA	7.68	6,912.78	NA	6.5 - 21.5	Chinle/Alluvium Interface
	MKTF-02R	02/28/22	4.00	21.49	ND	NA	7.63	6,912.83	NA	6.5 - 21.5	Chinle/Alluvium Interface
	MKTF-02R	03/02/22	4.00	21.49	ND	NA	7.73	6,912.73	NA	6.5 - 21.5	Chinle/Alluvium Interface
	MKTF-02R	04/27/22	4.00	21.49	ND	NA	7.75	6,912.71	NA	6.5 - 21.5	Chinle/Alluvium Interface
	MKTF-02R	05/05/22	4.00	21.49	ND	NA	7.76	6,912.70	NA	6.5 - 21.5	Chinle/Alluvium Interface
	MKTF-02R	06/01/22	4.00	21.50	10.17	0.02	7.72	6,912.74	6912.76	6.5 - 21.5	Chinle/Alluvium Interface
07/22/21	MKTF-02R	07/06/22	4.00	21.50	9.98	0.03	7.54	6,912.92	6912.94	6.5 - 21.5	Chinle/Alluvium Interface
	MKTF-02R	08/08/22	4.00	21.50	10.10	0.03	7.66	6,912.80	6912.82	6.5 - 21.5	Chinle/Alluvium Interface
	MKTF-02R	09/01/22	4.00	21.50	10.11	0.02	7.66	6,912.80	6912.82	6.5 - 21.5	Chinle/Alluvium Interface
	MKTF-02R	10/03/22	4.00	21.50	10.12	0.02	7.67	6,912.79	6912.81	6.5 - 21.5	Chinle/Alluvium Interface
	MKTF-02R	11/02/22	4.00	21.50	10.10	0.03	7.66	6,912.80	6912.82	6.5 - 21.5	Chinle/Alluvium Interface
	MKTF-02R	12/06/22	4.00	21.50	9.98	0.05	7.56	6,912.90	6912.94	6.5 - 21.5	Chinle/Alluvium Interface
11/07/13	MKTF-03	03/17/15	4.00	18.45	8.46	0.80	9.30	6,922.43	6,923.07	3 - 18	Chinle/Alluvium Interface
	MKTF-03	06/04/15	4.00	18.45	8.70	0.62	9.36	6,922.37	6,922.87	3 - 18	Chinle/Alluvium Interface
	MKTF-03	08/18/15	4.00	18.45	8.09	0.82	8.95	6,922.78	6,923.44	3 - 18	Chinle/Alluvium Interface
	MKTF-03	11/03/15	4.00	18.45	8.30	1.10	9.44	6,922.29	6,923.17	3 - 18	Chinle/Alluvium Interface
	MKTF-03	03/17/16	4.00	18.45	8.46	0.80	9.30	6,922.43	6,923.07	3 - 18	Chinle/Alluvium Interface
	MKTF-03	06/09/16	4.00	18.45	7.55	4.28	11.87	6,919.86	6,923.28	3 - 18	Chinle/Alluvium Interface
	MKTF-03	09/12/16	4.00	18.45	7.92	2.40	10.36	6,921.37	6,923.29	3 - 18	Chinle/Alluvium Interface
	MKTF-03	11/03/16	4.00	18.45	8.30	1.10	9.44	6,922.29	6,923.17	3 - 18	Chinle/Alluvium Interface
	MKTF-03	03/02/17	4.00	18.45	6.42	1.17	7.63	6,924.10	6,925.04	3 - 18	Chinle/Alluvium Interface
	MKTF-03	06/07/17	4.00	18.45	6.95	1.30	8.29	6,923.44	6,924.48	3 - 18	Chinle/Alluvium Interface
	MKTF-03	09/26/17	4.00	18.45	6.35	0.80	7.19	6,924.54	6,925.18	3 - 18	Chinle/Alluvium Interface
	MKTF-03	11/28/17	4.00	18.45	7.00	0.95	7.99	6,923.74	6,924.50	3 - 18	Chinle/Alluvium Interface
	MKTF-03	02/08/18	4.00	18.45	7.40	0.85	8.29	6,923.44	6,924.12	3 - 18	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-03	04/25/18	4.00	18.45	7.30	0.92	8.26	6,923.47	6,924.21	3 - 18	Chinle/Alluvium Interface
	MKTF-03	08/16/18	4.00	18.53	7.30	0.95	8.29	6,923.44	6,924.20	3 - 18	Chinle/Alluvium Interface
	MKTF-03	11/19/18	4.00	18.45	6.85	1.00	7.89	6,923.84	6,924.64	3 - 18	Chinle/Alluvium Interface
	MKTF-03	03/25/19	4.00	18.45	4.50	1.10	5.64	6,926.09	6,926.97	3 - 18	Chinle/Alluvium Interface
	MKTF-03	05/13/19	4.00	18.45	4.55	1.11	5.70	6,926.03	6,926.92	3 - 18	Chinle/Alluvium Interface
	MKTF-03	08/21/19	4.00	18.53	6.04	1.23	7.31	6,924.42	6,925.40	3 - 18	Chinle/Alluvium Interface
	MKTF-03	10/30/19	4.00	18.45	6.70	1.30	8.04	6,923.69	6,924.73	3 - 18	Chinle/Alluvium Interface
	MKTF-03	03/05/20	4.00	18.45	6.47	1.37	7.88	6,923.85	6,924.95	3 - 18	Chinle/Alluvium Interface
	MKTF-03	06/26/20	4.00	18.45	7.36	1.27	8.67	6,923.06	6,924.08	3 - 18	Chinle/Alluvium Interface
	MKTF-03	09/15/20	4.00	18.59	7.08	0.01	7.13	6,924.60	6,924.61	3 - 18	Chinle/Alluvium Interface
	MKTF-03	11/10/20	4.00	18.59	7.13	1.30	8.47	6,923.26	6,924.30	3 - 18	Chinle/Alluvium Interface
	MKTF-03	12/03/20	4.00	18.58	7.46	1.16	8.66	6,923.07	6,924.00	3 - 18	Chinle/Alluvium Interface
	MKTF-03	12/26/20	4.00	18.57	7.83	0.91	8.78	6,922.95	6,923.68	3 - 18	Chinle/Alluvium Interface
	MKTF-03	01/28/21	4.00	18.57	7.80	0.93	8.77	6,922.96	6,923.70	3 - 18	Chinle/Alluvium Interface
	MKTF-03	02/28/21	4.00	18.62	7.46	0.93	8.43	6,923.30	6,924.04	3 - 18	Chinle/Alluvium Interface
	MKTF-03	03/31/21	4.00	18.62	7.20	1.03	8.27	6,923.46	6,924.28	3 - 18	Chinle/Alluvium Interface
	MKTF-03	04/26/21	4.00	18.62	7.11	0.80	7.95	6,923.78	6,924.42	3 - 18	Chinle/Alluvium Interface
	MKTF-03	05/20/21	4.00	18.62	7.28	1.09	8.41	6,923.32	6,924.19	3 - 18	Chinle/Alluvium Interface
	MKTF-03	06/01/21	4.00	18.62	7.33	1.13	8.50	6,923.23	6,924.13	3 - 18	Chinle/Alluvium Interface
	MKTF-03	07/06/21	4.00	18.62	7.45	0.88	8.37	6,923.36	6,924.06	3 - 18	Chinle/Alluvium Interface
	MKTF-03	08/25/21	4.00	18.62	7.75	1.25	9.04	6,922.69	6,923.69	3 - 18	Chinle/Alluvium Interface
	MKTF-03	09/09/21	4.00	18.62	7.33	1.13	8.50	6,923.23	6,924.13	3 - 18	Chinle/Alluvium Interface
	MKTF-03	10/27/21	4.00	18.62	7.40	1.86	9.30	6,922.43	6,923.92	3 - 18	Chinle/Alluvium Interface
	MKTF-03	11/17/21	4.00	18.62	7.55	1.65	9.24	6,922.49	6,923.81	3 - 18	Chinle/Alluvium Interface
	MKTF-03	12/15/21	4.00	18.62	7.67	1.26	8.97	6,922.76	6,923.77	3 - 18	Chinle/Alluvium Interface
	MKTF-03	01/10/22	4.00	18.62	7.00	1.31	8.35	6,923.38	6,924.43	3 - 18	Chinle/Alluvium Interface
	MKTF-03	02/28/22	4.00	18.62	7.75	1.25	9.04	6,922.69	6,923.69	3 - 18	Chinle/Alluvium Interface
11/07/13	MKTF-03	03/02/22	4.00	18.64	7.70	1.20	8.94	6,922.79	6,923.75	3 - 18	Chinle/Alluvium Interface
	MKTF-03	04/27/22	4.00	18.62	7.70	1.20	8.94	6,922.79	6,923.75	3 - 18	Chinle/Alluvium Interface
	MKTF-03	05/05/22	4.00	18.62	7.68	1.17	8.89	6,922.84	6,923.78	3 - 18	Chinle/Alluvium Interface
	MKTF-03	06/01/22	4.00	18.64	7.63	1.15	8.82	6,922.91	6,923.83	3 - 18	Chinle/Alluvium Interface
	MKTF-03	07/06/22	4.00	18.64	8.03	0.17	8.24	6,923.49	6,923.63	3 - 18	Chinle/Alluvium Interface
	MKTF-03	08/08/22	4.00	18.64	7.60	0.17	7.81	6,923.92	6,924.06	3 - 18	Chinle/Alluvium Interface
	MKTF-03	09/01/22	4.00	18.64	7.68	0.14	7.86	6,923.87	6,923.98	3 - 18	Chinle/Alluvium Interface
	MKTF-03	10/03/22	4.00	18.64	7.41	3.22	10.67	6,921.06	6,923.64	3 - 18	Chinle/Alluvium Interface
	MKTF-03	11/02/22	4.00	18.64	7.42	3.23	10.69	6,921.04	6,923.62	3 - 18	Chinle/Alluvium Interface
	MKTF-03	12/09/22	4.00	18.64	8.02	2.45	10.51	6,921.22	6,923.18	3 - 18	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
11/12/13	MKTF-04	03/16/15	4.00	22.15	ND	0.00	10.58	6,923.32	NA	10 - 22	Chinle/Alluvium Interface
	MKTF-04	06/04/15	4.00	22.15	ND	0.00	11.33	6,922.57	NA	10 - 22	Chinle/Alluvium Interface
	MKTF-04	08/18/15	4.00	22.15	ND	0.00	10.97	6,922.93	NA	10 - 22	Chinle/Alluvium Interface
	MKTF-04	11/03/15	4.00	22.15	ND	0.00	4.56	6,929.34	NA	10 - 22	Chinle/Alluvium Interface
	MKTF-04	02/29/16	4.00	22.15	ND	0.00	11.01	6,922.89	NA	10 - 22	Chinle/Alluvium Interface
	MKTF-04	06/09/16	4.00	22.15	ND	0.00	10.63	6,923.27	NA	10 - 22	Chinle/Alluvium Interface
	MKTF-04	09/11/16	4.00	22.15	ND	0.00	10.56	6,923.34	NA	10 - 22	Chinle/Alluvium Interface
	MKTF-04	11/03/16	4.00	22.15	ND	0.00	10.73	6,923.17	NA	10 - 22	Chinle/Alluvium Interface
	MKTF-04	03/02/17	4.00	22.15	ND	0.00	8.64	6,925.26	NA	10 - 22	Chinle/Alluvium Interface
	MKTF-04	06/07/17	4.00	22.15	ND	0.00	9.61	6,924.29	NA	10 - 22	Chinle/Alluvium Interface
	MKTF-04	09/26/17	4.00	22.15	ND	0.00	9.13	6,924.77	NA	10 - 22	Chinle/Alluvium Interface
	MKTF-04	11/29/17	4.00	22.30	ND	0.00	9.63	6,924.27	NA	10 - 22	Chinle/Alluvium Interface
	MKTF-04	02/14/18	4.00	22.37	ND	0.00	10.18	6,923.72	NA	10 - 22	Chinle/Alluvium Interface
	MKTF-04	04/25/18	4.00	22.29	ND	0.00	10.03	6,923.87	NA	10 - 22	Chinle/Alluvium Interface
	MKTF-04	08/16/18	4.00	22.39	ND	0.00	10.03	6,923.87	NA	10 - 22	Chinle/Alluvium Interface
	MKTF-04	11/19/18	4.00	22.30	ND	0.00	8.72	6,925.18	NA	10 - 22	Chinle/Alluvium Interface
	MKTF-04	03/25/19	4.00	22.15	ND	0.00	6.78	6,927.12	NA	10 - 22	Chinle/Alluvium Interface
	MKTF-04	05/13/19	4.00	22.15	ND	0.00	6.88	6,927.02	NA	10 - 22	Chinle/Alluvium Interface
	MKTF-04	08/21/19	4.00	22.39	ND	0.00	8.60	6,925.30	NA	10 - 22	Chinle/Alluvium Interface
	MKTF-04	10/30/19	4.00	22.30	ND	0.00	9.26	6,924.64	NA	10 - 22	Chinle/Alluvium Interface
	MKTF-04	03/02/20	4.00	22.21	ND	0.00	8.80	6,925.10	NA	10 - 22	Chinle/Alluvium Interface
	MKTF-04	06/26/20	4.00	22.15	ND	0.00	10.08	6,923.82	NA	10 - 22	Chinle/Alluvium Interface
	MKTF-04	09/15/20	4.00	22.72	9.39	0.01	9.73	6,924.17	6924.18	10 - 22	Chinle/Alluvium Interface
	MKTF-04	11/10/20	4.00	22.72	ND	0.00	9.53	6,924.37	NA	10 - 22	Chinle/Alluvium Interface
11/12/13	MKTF-04	12/03/20	4.00	22.72	9.70	0.01	10.04	6,923.86	6923.87	10 - 22	Chinle/Alluvium Interface
	MKTF-04	01/28/21	4.00	22.72	ND	NA	10.47	6,923.43	NA	10 - 22	Chinle/Alluvium Interface
	MKTF-04	02/28/21	4.00	22.72	9.84	0.12	10.29	6,923.61	6923.71	10 - 22	Chinle/Alluvium Interface
	MKTF-04	03/31/21	4.00	22.72	9.21	0.02	9.56	6,924.34	6924.36	10 - 22	Chinle/Alluvium Interface
	MKTF-04	04/26/21	4.00	22.72	9.20	0.02	9.55	6,924.35	6924.37	10 - 22	Chinle/Alluvium Interface
	MKTF-04	05/20/21	4.00	22.72	9.28	0.10	9.71	6,924.19	6924.27	10 - 22	Chinle/Alluvium Interface
	MKTF-04	06/01/21	4.00	22.72	9.19	0.03	9.55	6,924.35	6924.37	10 - 22	Chinle/Alluvium Interface
	MKTF-04	07/06/21	4.00	22.72	ND	NA	9.49	6,924.41	NA	10 - 22	Chinle/Alluvium Interface
08/16/21	MKTF-04R	08/30/21	4.00	19.20	ND	NA	10.13	6,928.36	NA	4 - 19	Chinle/Alluvium Interface
	MKTF-04R	09/17/21	4.00	19.20	ND	NA	10.48	6,928.01	NA	4 - 19	Chinle/Alluvium Interface
	MKTF-04R	10/27/21	4.00	19.20	ND	NA	9.93	6,928.56	NA	4 - 19	Chinle/Alluvium Interface
	MKTF-04R	11/17/21	4.00	19.20	ND	NA	10.02	6,928.47	NA	4 - 19	Chinle/Alluvium Interface
08/16/21	MKTF-04R	12/03/21	4.00	19.20	ND	NA	10.18	6,928.31	NA	4 - 19	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-04R	01/10/22	4.00	19.20	ND	NA	10.23	6,928.26	NA	4 - 19	Chinle/Alluvium Interface
	MKTF-04R	02/28/22	4.00	19.20	ND	NA	10.13	6,928.36	NA	4 - 19	Chinle/Alluvium Interface
	MKTF-04R	03/02/22	4.00	19.22	ND	NA	10.24	6,928.25	NA	4 - 19	Chinle/Alluvium Interface
	MKTF-04R	04/27/22	4.00	19.22	ND	NA	9.92	6,928.57	NA	4 - 19	Chinle/Alluvium Interface
	MKTF-04R	05/05/22	4.00	19.22	ND	NA	10.15	6,928.34	NA	4 - 19	Chinle/Alluvium Interface
	MKTF-04R	06/01/22	4.00	19.20	9.64	0.02	10.19	6,928.30	6928.32	4 - 19	Chinle/Alluvium Interface
	MKTF-04R	07/06/22	4.00	19.20	9.80	0.03	10.36	6,928.13	6928.15	4 - 19	Chinle/Alluvium Interface
	MKTF-04R	08/08/22	4.00	19.20	10.03	0.02	10.58	6,927.91	6927.93	4 - 19	Chinle/Alluvium Interface
	MKTF-04R	09/01/22	4.00	19.20	9.61	0.02	10.16	6,928.33	6928.35	4 - 19	Chinle/Alluvium Interface
	MKTF-04R	10/03/22	4.00	19.20	9.72	0.03	10.28	6,928.21	6928.23	4 - 19	Chinle/Alluvium Interface
	MKTF-04R	11/02/22	4.00	19.20	9.70	0.03	10.26	6,928.23	6928.25	4 - 19	Chinle/Alluvium Interface
	MKTF-04R	12/06/22	4.00	19.20	9.50	0.05	10.08	6,928.41	6928.45	4 - 19	Chinle/Alluvium Interface
11/20/13	MKTF-05	03/16/15	4.00	17.75	15.72	0.36	13.35	6,926.14	6,926.43	4 - 14	Chinle/Alluvium Interface
	MKTF-05	06/04/15	4.00	17.75	15.77	0.63	13.67	6,925.82	6,926.32	4 - 14	Chinle/Alluvium Interface
	MKTF-05	08/18/15	4.00	17.75	15.44	0.19	12.90	6,926.59	6,926.74	4 - 14	Chinle/Alluvium Interface
	MKTF-05	11/03/15	4.00	17.75	15.47	0.84	13.58	6,925.91	6,926.58	4 - 14	Chinle/Alluvium Interface
	MKTF-05	03/16/16	4.00	17.75	15.72	0.36	13.35	6,926.14	6,926.43	4 - 14	Chinle/Alluvium Interface
	MKTF-05	06/09/16	4.00	17.75	15.34	0.53	13.14	6,926.35	6,926.77	4 - 14	Chinle/Alluvium Interface
	MKTF-05	09/11/16	4.00	17.75	14.74	3.04	15.05	6,924.44	6,926.87	4 - 14	Chinle/Alluvium Interface
	MKTF-05	11/03/16	4.00	17.75	15.47	0.84	13.58	6,925.91	6,926.58	4 - 14	Chinle/Alluvium Interface
	MKTF-05	03/02/17	4.00	17.75	13.33	0.29	10.89	6,928.60	6,928.83	4 - 14	Chinle/Alluvium Interface
	MKTF-05	06/07/17	4.00	17.75	13.79	0.46	11.52	6,927.97	6,928.34	4 - 14	Chinle/Alluvium Interface
	MKTF-05	09/26/17	4.00	17.75	13.01	0.49	10.77	6,928.72	6,929.11	4 - 14	Chinle/Alluvium Interface
	MKTF-05	11/28/17	4.00	17.75	13.98	0.77	12.02	6,927.47	6,928.09	4 - 14	Chinle/Alluvium Interface
	MKTF-05	02/08/18	4.00	17.75	14.78	0.42	12.47	6,927.02	6,927.36	4 - 14	Chinle/Alluvium Interface
	MKTF-05	04/25/18	4.00	17.70	14.96	0.23	12.46	6,927.03	6,927.21	4 - 14	Chinle/Alluvium Interface
	MKTF-05	08/16/18	4.00	17.75	14.61	0.19	12.07	6,927.42	6,927.57	4 - 14	Chinle/Alluvium Interface
	MKTF-05	11/19/18	4.00	17.75	14.62	0.21	12.10	6,927.39	6,927.56	4 - 14	Chinle/Alluvium Interface
	MKTF-05	02/19/19	4.00	17.75	13.87	0.10	11.24	6,928.25	6,928.33	4 - 14	Chinle/Alluvium Interface
	MKTF-05	05/13/19	4.00	17.75	12.95	0.17	10.39	6,929.10	6,929.24	4 - 14	Chinle/Alluvium Interface
	MKTF-05	08/30/19	4.00	17.75	13.40	0.20	10.87	6,928.62	6,928.78	4 - 14	Chinle/Alluvium Interface
	MKTF-05	10/30/19	4.00	17.75	13.90	0.30	11.47	6,928.02	6,928.26	4 - 14	Chinle/Alluvium Interface
	MKTF-05	11/12/19	4.00	17.75	11.64	5.09	14.00	6,925.49	6929.56	4 - 14	Chinle/Alluvium Interface
	MKTF-05	11/13/19	4.00	17.75	10.96	6.19	14.42	6,925.07	6930.02	4 - 14	Chinle/Alluvium Interface
	MKTF-05	11/14/19	4.00	17.75	10.78	6.39	14.44	6,925.05	6930.16	4 - 14	Chinle/Alluvium Interface
	MKTF-05	11/15/19	4.00	17.75	10.54	6.62	14.43	6,925.06	6930.36	4 - 14	Chinle/Alluvium Interface
	MKTF-05	11/19/19	4.00	17.75	10.04	7.14	14.45	6,925.04	6930.75	4 - 14	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-05	11/21/19	4.00	17.75	9.97	7.21	14.45	6,925.04	6930.81	4 - 14	Chinle/Alluvium Interface
	MKTF-05	12/02/19	4.00	17.75	10.64	6.53	14.44	6,925.05	6930.27	4 - 14	Chinle/Alluvium Interface
	MKTF-05	03/05/20	4.00	17.75	13.58	0.14	10.99	6,928.50	6928.61	4 - 14	Chinle/Alluvium Interface
	MKTF-05	06/25/20	4.00	17.75	14.06	0.75	12.07	6,927.42	6928.02	4 - 14	Chinle/Alluvium Interface
	MKTF-05	09/15/20	4.00	17.83	13.65	1.03	11.95	6,927.54	6928.36	4 - 14	Chinle/Alluvium Interface
	MKTF-05	11/10/20	4.00	17.83	14.02	0.88	12.17	6,927.32	6928.02	4 - 14	Chinle/Alluvium Interface
	MKTF-05	12/03/20	4.00	17.80	14.12	0.81	12.20	6,927.29	6927.94	4 - 14	Chinle/Alluvium Interface
	MKTF-05	01/28/21	4.00	17.80	14.94	0.19	12.40	6,927.09	6927.24	4 - 14	Chinle/Alluvium Interface
11/20/13	MKTF-05	02/28/21	4.00	17.77	14.60	0.15	12.02	6,927.47	6927.59	4 - 14	Chinle/Alluvium Interface
	MKTF-05	03/31/21	4.00	17.77	14.99	0.06	12.32	6,927.17	6927.22	4 - 14	Chinle/Alluvium Interface
	MKTF-05	04/26/21	4.00	17.77	15.03	0.14	12.44	6,927.05	6927.16	4 - 14	Chinle/Alluvium Interface
	MKTF-05	05/20/21	4.00	17.77	15.02	0.07	12.36	6,927.13	6927.19	4 - 14	Chinle/Alluvium Interface
	MKTF-05	06/01/21	4.00	17.77	14.88	0.08	12.23	6,927.26	6927.32	4 - 14	Chinle/Alluvium Interface
	MKTF-05	07/06/21	4.00	17.77	15.42	0.26	12.95	6,926.54	6926.75	4 - 14	Chinle/Alluvium Interface
	MKTF-05	08/25/21	4.00	17.77	14.50	0.60	12.37	6,927.12	6927.60	4 - 14	Chinle/Alluvium Interface
	MKTF-05	09/07/21	4.00	17.77	14.27	1.07	12.61	6,926.88	6927.74	4 - 14	Chinle/Alluvium Interface
	MKTF-05	10/27/21	4.00	17.77	14.10	0.55	11.92	6,927.57	6928.01	4 - 14	Chinle/Alluvium Interface
	MKTF-05	11/02/21	4.00	17.77	14.25	0.56	12.08	6,927.41	6927.86	4 - 14	Chinle/Alluvium Interface
	MKTF-05	12/03/21	4.00	17.77	14.50	0.60	12.37	6,927.12	6927.60	4 - 14	Chinle/Alluvium Interface
	MKTF-05	01/10/22	4.00	17.77	14.10	0.21	11.58	6,927.91	6928.08	4 - 14	Chinle/Alluvium Interface
	MKTF-05	02/28/22	4.00	17.77	14.50	0.60	12.37	6,927.12	6927.60	4 - 14	Chinle/Alluvium Interface
	MKTF-05	03/02/22	4.00	17.75	14.44	0.64	12.35	6,927.14	6927.65	4 - 14	Chinle/Alluvium Interface
	MKTF-05	04/27/22	4.00	17.75	15.36	0.08	12.71	6,926.78	6926.84	4 - 14	Chinle/Alluvium Interface
	MKTF-05	05/03/22	4.00	17.75	15.40	0.05	12.72	6,926.77	6926.81	4 - 14	Chinle/Alluvium Interface
	MKTF-05	06/01/22	4.00	17.75	15.78	0.08	13.13	6,926.36	6926.42	4 - 14	Chinle/Alluvium Interface
	MKTF-05	07/06/22	4.00	17.75	14.68	0.15	12.10	6,927.39	6927.51	4 - 14	Chinle/Alluvium Interface
	MKTF-05	08/08/22	4.00	17.75	13.88	1.48	12.63	6,926.86	6928.04	4 - 14	Chinle/Alluvium Interface
	MKTF-05	09/01/22	4.00	17.75	14.37	1.69	13.33	6,926.16	6927.51	4 - 14	Chinle/Alluvium Interface
	MKTF-05	10/03/22	4.00	17.75	14.37	1.26	12.90	6,926.59	6927.60	4 - 14	Chinle/Alluvium Interface
	MKTF-05	11/02/22	4.00	17.75	14.40	1.20	12.87	6,926.62	6927.58	4 - 14	Chinle/Alluvium Interface
	MKTF-05	12/09/22	4.00	17.75	15.23	0.53	13.03	6,926.46	6926.88	4 - 14	Chinle/Alluvium Interface
11/11/13	MKTF-06	03/16/15	4.00	23.77	18.24	1.70	17.37	6,926.87	6,928.23	8 - 20	Chinle/Alluvium Interface
	MKTF-06	06/04/15	4.00	23.77	18.56	0.84	16.83	6,927.41	6,928.08	8 - 20	Chinle/Alluvium Interface
	MKTF-06	08/15/15	4.00	23.77	17.53	0.86	15.82	6,928.42	6,929.11	8 - 20	Chinle/Alluvium Interface
	MKTF-06	11/03/15	4.00	23.77	18.04	0.74	16.21	6,928.03	6,928.62	8 - 20	Chinle/Alluvium Interface
	MKTF-06	03/16/16	4.00	23.77	18.24	1.70	17.37	6,926.87	6,928.23	8 - 20	Chinle/Alluvium Interface
	MKTF-06	06/09/16	4.00	23.77	18.02	0.94	16.39	6,927.85	6,928.60	8 - 20	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-06	09/11/16	4.00	23.77	17.40	1.08	15.91	6,928.33	6,929.19	8 - 20	Chinle/Alluvium Interface
	MKTF-06	11/03/16	4.00	23.77	18.04	0.74	16.21	6,928.03	6,928.62	8 - 20	Chinle/Alluvium Interface
	MKTF-06	03/15/17	4.00	23.77	15.95	0.10	13.48	6,930.76	6,930.84	8 - 20	Chinle/Alluvium Interface
	MKTF-06	06/12/17	4.00	23.77	16.60	0.64	14.67	6,929.57	6,930.08	8 - 20	Chinle/Alluvium Interface
	MKTF-06	09/26/17	4.00	23.77	16.01	0.71	14.15	6,930.09	6,930.66	8 - 20	Chinle/Alluvium Interface
	MKTF-06	11/28/17	4.00	23.77	16.55	1.15	15.13	6,929.11	6,930.03	8 - 20	Chinle/Alluvium Interface
	MKTF-06	02/08/18	4.00	23.77	17.14	1.38	15.95	6,928.29	6,929.39	8 - 20	Chinle/Alluvium Interface
	MKTF-06	04/25/18	4.00	23.72	17.29	1.32	16.04	6,928.20	6,929.26	8 - 20	Chinle/Alluvium Interface
	MKTF-06	08/16/18	4.00	23.79	16.83	1.17	15.43	6,928.81	6,929.75	8 - 20	Chinle/Alluvium Interface
	MKTF-06	11/19/18	4.00	23.77	16.85	1.16	15.44	6,928.80	6,929.73	8 - 20	Chinle/Alluvium Interface
	MKTF-06	02/19/19	4.00	23.77	15.79	0.76	13.98	6,930.26	6,930.87	8 - 20	Chinle/Alluvium Interface
	MKTF-06	05/13/19	4.00	23.77	15.55	0.84	13.82	6,930.42	6,931.09	8 - 20	Chinle/Alluvium Interface
	MKTF-06	08/30/19	4.00	23.79	15.82	0.78	14.03	6,930.21	6,930.83	8 - 20	Chinle/Alluvium Interface
	MKTF-06	10/30/19	4.00	23.77	16.80	1.11	15.34	6,928.90	6,929.79	8 - 20	Chinle/Alluvium Interface
	MKTF-06	11/12/19	4.00	23.77	16.52	0.96	14.91	6,929.33	6930.10	8 - 20	Chinle/Alluvium Interface
	MKTF-06	11/13/19	4.00	23.77	16.33	0.85	14.61	6,929.63	6930.31	8 - 20	Chinle/Alluvium Interface
	MKTF-06	11/14/19	4.00	23.77	16.42	0.89	14.74	6,929.50	6930.21	8 - 20	Chinle/Alluvium Interface
11/11/13	MKTF-06	11/15/19	4.00	23.77	16.35	0.85	14.63	6,929.61	6930.29	8 - 20	Chinle/Alluvium Interface
	MKTF-06	11/19/19	4.00	23.77	16.08	0.75	14.26	6,929.98	6930.58	8 - 20	Chinle/Alluvium Interface
	MKTF-06	11/21/19	4.00	23.77	15.93	1.31	14.67	6,929.57	6930.62	8 - 20	Chinle/Alluvium Interface
	MKTF-06	12/02/19	4.00	23.77	14.75	6.61	18.79	6,925.45	6930.74	8 - 20	Chinle/Alluvium Interface
	MKTF-06	03/05/20	4.00	23.77	16.89	1.71	16.03	6,928.21	6929.58	8 - 20	Chinle/Alluvium Interface
	MKTF-06	06/25/20	4.00	23.77	14.05	4.86	16.33	6,927.91	6931.79	8 - 20	Chinle/Alluvium Interface
	MKTF-06	09/15/20	4.00	23.79	16.78	1.93	16.14	6,928.10	6929.64	8 - 20	Chinle/Alluvium Interface
	MKTF-06	11/10/20	4.00	23.79	17.20	1.39	16.02	6,928.22	6929.33	8 - 20	Chinle/Alluvium Interface
	MKTF-06	12/03/20	4.00	23.79	17.38	1.11	15.92	6,928.32	6929.21	8 - 20	Chinle/Alluvium Interface
	MKTF-06	01/28/21	4.00	23.79	18.09	1.56	17.08	6,927.16	6928.41	8 - 20	Chinle/Alluvium Interface
	MKTF-06	02/28/21	4.00	23.85	17.93	0.72	16.08	6,928.16	6928.74	8 - 20	Chinle/Alluvium Interface
	MKTF-06	03/31/21	4.00	23.85	17.97	0.18	15.58	6,928.66	6928.80	8 - 20	Chinle/Alluvium Interface
	MKTF-06	04/26/21	4.00	23.85	17.88	0.07	15.38	6,928.86	6928.92	8 - 20	Chinle/Alluvium Interface
	MKTF-06	05/20/21	4.00	23.85	18.01	0.12	15.56	6,928.68	6928.78	8 - 20	Chinle/Alluvium Interface
	MKTF-06	06/01/21	4.00	23.85	18.09	0.16	15.68	6,928.56	6928.69	8 - 20	Chinle/Alluvium Interface
	MKTF-06	07/06/21	4.00	23.85	18.55	0.52	16.50	6,927.74	6928.16	8 - 20	Chinle/Alluvium Interface
	MKTF-06	08/26/21	4.00	23.85	17.75	0.85	16.03	6,928.21	6928.89	8 - 20	Chinle/Alluvium Interface
	MKTF-06	09/07/21	4.00	23.85	17.98	0.68	16.09	6,928.15	6928.69	8 - 20	Chinle/Alluvium Interface
	MKTF-06	10/27/21	4.00	23.85	17.35	1.32	16.10	6,928.14	6929.20	8 - 20	Chinle/Alluvium Interface
	MKTF-06	11/17/21	4.00	23.85	17.44	1.21	16.08	6,928.16	6929.13	8 - 20	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-06	12/03/21	4.00	23.85	18.01	0.95	16.39	6,927.85	6928.61	8 - 20	Chinle/Alluvium Interface
	MKTF-06	01/10/22	4.00	23.85	17.50	0.03	14.96	6,929.28	6929.30	8 - 20	Chinle/Alluvium Interface
	MKTF-06	02/28/22	4.00	23.85	17.75	0.69	15.87	6,928.37	6928.92	8 - 20	Chinle/Alluvium Interface
	MKTF-06	03/02/22	4.00	23.85	18.00	0.95	16.38	6,927.86	6928.62	8 - 20	Chinle/Alluvium Interface
	MKTF-06	04/27/22	4.00	23.85	18.53	1.22	17.18	6,927.06	6928.04	8 - 20	Chinle/Alluvium Interface
	MKTF-06	05/03/22	4.00	23.85	18.63	1.26	17.32	6,926.92	6927.93	8 - 20	Chinle/Alluvium Interface
	MKTF-06	06/01/22	4.00	23.86	18.80	1.30	17.53	6,926.71	6927.75	8 - 20	Chinle/Alluvium Interface
	MKTF-06	07/06/22	4.00	23.86	17.20	1.85	16.48	6,927.76	6929.24	8 - 20	Chinle/Alluvium Interface
	MKTF-06	08/08/22	4.00	23.87	17.44	1.82	16.69	6,927.55	6929.01	8 - 20	Chinle/Alluvium Interface
	MKTF-06	09/01/22	4.00	23.87	18.50	1.23	17.16	6,927.08	6928.06	8 - 20	Chinle/Alluvium Interface
	MKTF-06	10/03/22	4.00	23.88	18.54	1.27	17.24	6,927.00	6928.02	8 - 20	Chinle/Alluvium Interface
	MKTF-06	11/02/22	4.00	23.88	18.56	1.27	17.26	6,926.98	6928.00	8 - 20	Chinle/Alluvium Interface
	MKTF-06	12/06/22	4.00	23.89	17.55	1.33	16.31	6,927.93	6928.99	8 - 20	Chinle/Alluvium Interface
11/11/13	MKTF-07	03/16/15	4.00	17.62	13.10	1.13	11.45	6,932.95	6,933.85	4 - 14	Chinle/Alluvium Interface
	MKTF-07	06/04/15	4.00	17.62	12.95	1.65	11.82	6,932.58	6,933.90	4 - 14	Chinle/Alluvium Interface
	MKTF-07	08/18/15	4.00	17.62	12.71	1.13	11.06	6,933.34	6,934.24	4 - 14	Chinle/Alluvium Interface
	MKTF-07	11/03/15	4.00	17.62	12.90	1.98	12.10	6,932.30	6,933.88	4 - 14	Chinle/Alluvium Interface
	MKTF-07	03/16/16	4.00	17.62	13.10	1.13	11.45	6,932.95	6,933.85	4 - 14	Chinle/Alluvium Interface
	MKTF-07	06/09/16	4.00	17.62	12.01	2.59	11.82	6,932.58	6,934.65	4 - 14	Chinle/Alluvium Interface
	MKTF-07	09/11/16	4.00	17.62	12.20	2.41	11.83	6,932.57	6,934.50	4 - 14	Chinle/Alluvium Interface
	MKTF-07	11/03/16	4.00	17.62	12.90	1.98	12.10	6,932.30	6,933.88	4 - 14	Chinle/Alluvium Interface
	MKTF-07	03/15/17	4.00	17.62	10.63	1.97	9.82	6,934.58	6,936.16	4 - 14	Chinle/Alluvium Interface
	MKTF-07	06/12/17	4.00	17.62	10.20	1.30	8.72	6,935.68	6,936.72	4 - 14	Chinle/Alluvium Interface
	MKTF-07	09/26/17	4.00	17.62	9.80	1.30	8.32	6,936.08	6,937.12	4 - 14	Chinle/Alluvium Interface
	MKTF-07	11/28/17	4.00	17.62	10.40	1.40	9.02	6,935.38	6,936.50	4 - 14	Chinle/Alluvium Interface
	MKTF-07	02/08/18	4.00	17.62	11.33	1.22	9.77	6,934.63	6,935.61	4 - 14	Chinle/Alluvium Interface
11/11/13	MKTF-07	04/25/18	4.00	17.58	10.84	1.18	9.24	6,935.16	6,936.10	4 - 14	Chinle/Alluvium Interface
	MKTF-07	08/16/18	4.00	17.47	11.42	1.08	9.72	6,934.68	6,935.54	4 - 14	Chinle/Alluvium Interface
	MKTF-07	11/27/18	4.00	17.62	12.35	1.17	10.74	6,933.66	6,934.60	4 - 14	Chinle/Alluvium Interface
	MKTF-07	02/19/19	4.00	17.62	10.39	1.21	8.82	6,935.58	6,936.55	4 - 14	Chinle/Alluvium Interface
	MKTF-07	05/13/19	4.00	17.62	10.72	0.10	8.04	6,936.36	6,936.44	4 - 14	Chinle/Alluvium Interface
	MKTF-07	08/30/19	4.00	17.47	11.18	1.11	9.51	6,934.89	6,935.78	4 - 14	Chinle/Alluvium Interface
	MKTF-07	10/30/19	4.00	17.62	12.20	1.19	10.61	6,933.79	6,934.74	4 - 14	Chinle/Alluvium Interface
	MKTF-07	11/12/19	4.00	17.62	12.03	1.16	10.41	6,933.99	6934.92	4 - 14	Chinle/Alluvium Interface
	MKTF-07	11/13/19	4.00	17.62	11.81	1.08	10.11	6,934.29	6935.15	4 - 14	Chinle/Alluvium Interface
	MKTF-07	11/14/19	4.00	17.62	11.98	1.16	10.36	6,934.04	6934.97	4 - 14	Chinle/Alluvium Interface
	MKTF-07	11/15/19	4.00	17.62	12.00	1.16	10.38	6,934.02	6934.95	4 - 14	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-07	11/19/19	4.00	17.62	11.40	2.77	11.39	6,933.01	6935.23	4 - 14	Chinle/Alluvium Interface
	MKTF-07	11/21/19	4.00	17.62	10.83	5.72	13.77	6,930.63	6935.21	4 - 14	Chinle/Alluvium Interface
	MKTF-07	12/02/19	4.00	17.62	11.38	5.74	14.34	6,930.06	6934.65	4 - 14	Chinle/Alluvium Interface
	MKTF-07	03/05/20	4.00	17.62	12.50	1.22	10.94	6,933.46	6934.44	4 - 14	Chinle/Alluvium Interface
	MKTF-07	06/25/20	4.00	17.62	12.23	1.53	10.98	6,933.42	6934.64	4 - 14	Chinle/Alluvium Interface
	MKTF-07	09/18/20	4.00	17.43	11.42	2.35	10.99	6,933.41	6935.29	4 - 14	Chinle/Alluvium Interface
	MKTF-07	11/10/20	4.00	17.43	12.56	1.20	10.98	6,933.42	6934.38	4 - 14	Chinle/Alluvium Interface
	MKTF-07	12/03/20	4.00	17.66	12.93	0.87	11.02	6,933.38	6934.08	4 - 14	Chinle/Alluvium Interface
	MKTF-07	01/28/21	4.00	17.66	13.80	0.40	11.42	6,932.98	6933.30	4 - 14	Chinle/Alluvium Interface
	MKTF-07	02/28/21	4.00	17.86	13.51	0.21	10.94	6,933.46	6933.63	4 - 14	Chinle/Alluvium Interface
	MKTF-07	03/31/21	4.00	17.86	13.70	0.11	11.03	6,933.37	6933.46	4 - 14	Chinle/Alluvium Interface
	MKTF-07	04/26/21	4.00	17.86	13.51	0.25	10.98	6,933.42	6933.62	4 - 14	Chinle/Alluvium Interface
	MKTF-07	05/20/21	4.00	17.86	13.68	0.13	11.03	6,933.37	6933.47	4 - 14	Chinle/Alluvium Interface
	MKTF-07	06/01/21	4.00	17.86	13.52	0.11	10.85	6,933.55	6933.64	4 - 14	Chinle/Alluvium Interface
	MKTF-07	07/06/21	4.00	17.86	13.35	0.34	10.91	6,933.49	6933.76	4 - 14	Chinle/Alluvium Interface
	MKTF-07	08/02/21	4.00	17.86	13.39	0.46	11.07	6,933.33	6933.70	4 - 14	Chinle/Alluvium Interface
	MKTF-07	09/07/21	4.00	17.86	13.26	0.42	10.90	6,933.50	6933.84	4 - 14	Chinle/Alluvium Interface
	MKTF-07	10/27/21	4.00	17.86	13.45	0.19	10.86	6,933.54	6933.69	4 - 14	Chinle/Alluvium Interface
	MKTF-07	11/02/21	4.00	17.86	13.46	0.19	10.87	6,933.53	6933.68	4 - 14	Chinle/Alluvium Interface
	MKTF-07	12/03/21	4.00	17.86	13.89	0.14	11.25	6,933.15	6933.26	4 - 14	Chinle/Alluvium Interface
	MKTF-07	01/10/22	4.00	17.86	14.47	0.04	11.73	6,932.67	6932.70	4 - 14	Chinle/Alluvium Interface
	MKTF-07	02/28/22	4.00	17.86	ND	NA	11.33	6,933.07	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-07	03/02/22	4.00	17.86	13.92	0.08	11.22	6,933.18	6933.24	4 - 14	Chinle/Alluvium Interface
	MKTF-07	04/27/22	4.00	17.86	14.83	0.03	12.08	6,932.32	6932.34	4 - 14	Chinle/Alluvium Interface
	MKTF-07	05/03/22	4.00	17.86	14.90	0.03	12.15	6,932.25	6932.27	4 - 14	Chinle/Alluvium Interface
	MKTF-07	06/01/22	4.00	17.85	15.12	0.03	12.37	6,932.03	6932.05	4 - 14	Chinle/Alluvium Interface
	MKTF-07	07/06/22	4.00	17.85	15.08	0.03	12.33	6,932.07	6932.09	4 - 14	Chinle/Alluvium Interface
	MKTF-07	08/08/22	4.00	17.85	14.80	0.05	12.07	6,932.33	6932.37	4 - 14	Chinle/Alluvium Interface
	MKTF-07	09/01/22	4.00	17.85	14.76	0.12	12.10	6,932.30	6932.40	4 - 14	Chinle/Alluvium Interface
	MKTF-07	10/03/22	4.00	17.85	14.70	0.55	12.47	6,931.93	6932.37	4 - 14	Chinle/Alluvium Interface
	MKTF-07	11/02/22	4.00	17.85	14.75	0.46	12.43	6,931.97	6932.34	4 - 14	Chinle/Alluvium Interface
	MKTF-07	12/09/22	4.00	17.85	15.06	0.35	12.63	6,931.77	6932.05	4 - 14	Chinle/Alluvium Interface
11/11/13	MKTF-08	03/16/15	4.00	21.98	14.25	0.25	11.43	6,932.59	6,932.79	8 - 18	Chinle/Alluvium Interface
	MKTF-08	06/04/15	4.00	21.98	14.35	0.56	11.84	6,932.18	6,932.63	8 - 18	Chinle/Alluvium Interface
	MKTF-08	08/18/15	4.00	21.98	13.79	0.96	11.68	6,932.34	6,933.11	8 - 18	Chinle/Alluvium Interface
11/11/13	MKTF-08	11/08/15	4.00	21.98	13.84	1.48	12.25	6,931.77	6,932.95	8 - 18	Chinle/Alluvium Interface
	MKTF-08	03/16/16	4.00	21.98	14.25	0.25	11.43	6,932.59	6,932.79	8 - 18	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-08	06/09/16	4.00	21.98	13.48	0.70	11.11	6,932.91	6,933.47	8 - 18	Chinle/Alluvium Interface
	MKTF-08	09/11/16	4.00	21.98	13.63	0.66	11.22	6,932.80	6,933.33	8 - 18	Chinle/Alluvium Interface
	MKTF-08	11/08/16	4.00	21.98	13.84	1.48	12.25	6,931.77	6,932.95	8 - 18	Chinle/Alluvium Interface
	MKTF-08	03/15/17	4.00	21.98	11.99	0.61	9.53	6,934.49	6,934.98	8 - 18	Chinle/Alluvium Interface
	MKTF-08	06/12/17	4.00	21.98	11.98	0.42	9.33	6,934.69	6,935.03	8 - 18	Chinle/Alluvium Interface
	MKTF-08	09/26/17	4.00	21.98	12.15	0.45	9.53	6,934.49	6,934.85	8 - 18	Chinle/Alluvium Interface
	MKTF-08	11/28/17	4.00	21.98	12.68	0.52	10.13	6,933.89	6,934.31	8 - 18	Chinle/Alluvium Interface
	MKTF-08	02/08/18	4.00	21.98	13.29	0.34	10.56	6,933.46	6,933.73	8 - 18	Chinle/Alluvium Interface
	MKTF-08	04/25/18	4.00	21.94	13.00	0.33	10.26	6,933.76	6,934.02	8 - 18	Chinle/Alluvium Interface
	MKTF-08	08/16/18	4.00	21.98	12.96	0.39	10.28	6,933.74	6,934.05	8 - 18	Chinle/Alluvium Interface
	MKTF-08	11/27/18	4.00	21.98	13.41	0.39	10.73	6,933.29	6,933.60	8 - 18	Chinle/Alluvium Interface
	MKTF-08	02/19/19	4.00	21.98	11.35	0.65	8.93	6,935.09	6,935.61	8 - 18	Chinle/Alluvium Interface
	MKTF-08	05/13/19	4.00	21.98	11.95	0.48	9.36	6,934.66	6,935.04	8 - 18	Chinle/Alluvium Interface
	MKTF-08	08/30/19	4.00	21.98	12.50	0.40	9.83	6,934.19	6,934.51	8 - 18	Chinle/Alluvium Interface
	MKTF-08	10/30/19	4.00	21.98	13.54	0.45	10.92	6,933.10	6,933.46	8 - 18	Chinle/Alluvium Interface
	MKTF-08	11/21/19	4.00	21.98	13.47	0.38	10.78	6,933.24	6,933.54	8 - 18	Chinle/Alluvium Interface
	MKTF-08	12/02/19	4.00	21.98	13.72	0.41	11.06	6,932.96	6,933.29	8 - 18	Chinle/Alluvium Interface
	MKTF-08	03/05/20	4.00	21.98	14.03	0.34	11.30	6,932.72	6,932.99	8 - 18	Chinle/Alluvium Interface
	MKTF-08	06/25/20	4.00	21.98	14.00	0.40	11.33	6,932.69	6,933.01	8 - 18	Chinle/Alluvium Interface
	MKTF-08	09/18/20	4.00	22.00	13.76	0.39	11.08	6,932.94	6,933.25	8 - 18	Chinle/Alluvium Interface
	MKTF-08	11/10/20	4.00	22.00	14.23	0.46	11.62	6,932.40	6,932.77	8 - 18	Chinle/Alluvium Interface
	MKTF-08	12/03/20	4.00	22.01	14.36	0.40	11.69	6,932.33	6,932.65	8 - 18	Chinle/Alluvium Interface
	MKTF-08	01/28/21	4.00	22.01	14.84	0.31	12.08	6,931.94	6,932.19	8 - 18	Chinle/Alluvium Interface
	MKTF-08	02/28/21	4.00	22.00	14.76	0.13	11.82	6,932.20	6,932.30	8 - 18	Chinle/Alluvium Interface
	MKTF-08	03/31/21	4.00	22.00	14.60	0.10	11.63	6,932.39	6,932.47	8 - 18	Chinle/Alluvium Interface
	MKTF-08	04/26/21	4.00	22.00	14.64	0.11	11.68	6,932.34	6,932.43	8 - 18	Chinle/Alluvium Interface
	MKTF-08	05/20/21	4.00	22.00	14.63	0.08	11.64	6,932.38	6,932.44	8 - 18	Chinle/Alluvium Interface
	MKTF-08	06/01/21	4.00	22.00	14.71	0.08	11.72	6,932.30	6,932.36	8 - 18	Chinle/Alluvium Interface
	MKTF-08	07/06/21	4.00	22.00	14.97	0.36	12.26	6,931.76	6,932.05	8 - 18	Chinle/Alluvium Interface
	MKTF-08	08/02/21	4.00	22.00	14.93	0.16	12.02	6,932.00	6,932.13	8 - 18	Chinle/Alluvium Interface
	MKTF-08	09/07/21	4.00	22.00	14.77	0.22	11.92	6,932.10	6,932.28	8 - 18	Chinle/Alluvium Interface
	MKTF-08	10/27/21	4.00	22.00	14.75	0.35	12.03	6,931.99	6,932.27	8 - 18	Chinle/Alluvium Interface
	MKTF-08	11/02/21	4.00	22.00	14.73	0.48	12.14	6,931.88	6,932.26	8 - 18	Chinle/Alluvium Interface
	MKTF-08	12/03/21	4.00	22.00	15.03	0.34	12.30	6,931.72	6,931.99	8 - 18	Chinle/Alluvium Interface
	MKTF-08	01/10/22	4.00	22.00	15.20	0.15	12.28	6,931.74	6,931.86	8 - 18	Chinle/Alluvium Interface
	MKTF-08	02/28/22	4.00	22.00	14.75	0.05	11.73	6,932.29	6,932.33	8 - 18	Chinle/Alluvium Interface
	MKTF-08	03/02/22	4.00	22.00	15.00	0.33	12.26	6,931.76	6,932.02	8 - 18	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-08	04/27/22	4.00	22.00	15.71	0.29	12.93	6,931.09	6931.32	8 - 18	Chinle/Alluvium Interface
	MKTF-08	05/03/22	4.00	22.00	15.78	0.38	13.09	6,930.93	6931.23	8 - 18	Chinle/Alluvium Interface
	MKTF-08	06/01/22	4.00	22.03	15.90	0.78	13.61	6,930.41	6931.03	8 - 18	Chinle/Alluvium Interface
	MKTF-08	07/06/22	4.00	22.03	15.76	0.39	13.08	6,930.94	6931.25	8 - 18	Chinle/Alluvium Interface
	MKTF-08	08/08/22	4.00	22.03	15.47	0.68	13.08	6,930.94	6931.48	8 - 18	Chinle/Alluvium Interface
	MKTF-08	09/01/22	4.00	22.03	15.36	1.42	13.71	6,930.31	6931.45	8 - 18	Chinle/Alluvium Interface
	MKTF-08	10/03/22	4.00	22.03	14.94	3.44	15.31	6,928.71	6931.46	8 - 18	Chinle/Alluvium Interface
11/11/13	MKTF-08	11/02/22	4.00	22.03	14.95	3.43	15.31	6,928.71	6931.45	8 - 18	Chinle/Alluvium Interface
	MKTF-08	12/06/22	4.00	22.03	15.31	3.00	15.24	6,928.78	6931.18	8 - 18	Chinle/Alluvium Interface
11/11/13	MKTF-09	03/16/15	4.00	22.70	ND	0.00	11.55	6,932.02	NA	7 - 19	Chinle/Alluvium Interface
	MKTF-09	06/04/15	4.00	22.70	ND	0.00	11.75	6,931.82	NA	7 - 19	Chinle/Alluvium Interface
	MKTF-09	08/18/15	4.00	22.70	ND	0.00	11.56	6,932.01	NA	7 - 19	Chinle/Alluvium Interface
	MKTF-09	11/03/15	4.00	22.70	ND	0.00	11.36	6,932.21	NA	7 - 19	Chinle/Alluvium Interface
	MKTF-09	02/29/16	4.00	22.70	ND	0.00	11.22	6,932.35	NA	7 - 19	Chinle/Alluvium Interface
	MKTF-09	06/09/16	4.00	22.70	ND	0.00	10.99	6,932.58	NA	7 - 19	Chinle/Alluvium Interface
	MKTF-09	09/11/16	4.00	22.70	ND	0.00	11.27	6,932.30	NA	7 - 19	Chinle/Alluvium Interface
	MKTF-09	11/03/16	4.00	22.70	ND	0.00	11.36	6,932.21	NA	7 - 19	Chinle/Alluvium Interface
	MKTF-09	03/15/17	4.00	22.70	ND	0.00	9.71	6,933.86	NA	7 - 19	Chinle/Alluvium Interface
	MKTF-09	06/12/17	4.00	22.70	ND	0.00	9.71	6,933.86	NA	7 - 19	Chinle/Alluvium Interface
	MKTF-09	09/28/17	4.00	22.70	ND	0.00	9.76	6,933.81	NA	7 - 19	Chinle/Alluvium Interface
	MKTF-09	11/29/17	4.00	22.75	ND	0.00	10.22	6,933.35	NA	7 - 19	Chinle/Alluvium Interface
	MKTF-09	02/14/18	4.00	22.74	ND	0.00	10.83	6,932.74	NA	7 - 19	Chinle/Alluvium Interface
	MKTF-09	04/25/18	4.00	22.69	ND	0.00	10.49	6,933.08	NA	7 - 19	Chinle/Alluvium Interface
	MKTF-09	08/16/18	4.00	22.74	ND	0.00	10.56	6,933.01	NA	7 - 19	Chinle/Alluvium Interface
	MKTF-09	11/27/18	4.00	22.75	ND	0.00	10.88	6,932.69	NA	7 - 19	Chinle/Alluvium Interface
	MKTF-09	03/25/19	4.00	22.70	ND	0.00	8.17	6,935.40	NA	7 - 19	Chinle/Alluvium Interface
	MKTF-09	05/13/19	4.00	22.70	ND	0.00	9.34	6,934.23	NA	7 - 19	Chinle/Alluvium Interface
	MKTF-09	08/28/19	4.00	22.74	ND	0.00	10.35	6,933.22	NA	7 - 19	Chinle/Alluvium Interface
	MKTF-09	11/18/19	4.00	22.75	ND	0.00	11.04	6,932.53	NA	7 - 19	Chinle/Alluvium Interface
	MKTF-09	03/02/20	4.00	22.76	ND	0.00	11.30	6,932.27	NA	7 - 19	Chinle/Alluvium Interface
	MKTF-09	06/25/20	4.00	22.77	ND	0.00	11.62	6,931.95	NA	7 - 19	Chinle/Alluvium Interface
	MKTF-09	09/18/20	4.00	22.41	14.19	0.01	11.27	6,932.30	6932.31	7 - 19	Chinle/Alluvium Interface
	MKTF-09	11/10/20	4.00	22.41	14.61	0.01	11.69	6,931.88	6931.89	7 - 19	Chinle/Alluvium Interface
	MKTF-09	12/03/20	4.00	22.78	14.75	0.01	11.83	6,931.74	6931.75	7 - 19	Chinle/Alluvium Interface
	MKTF-09	01/28/21	4.00	22.78	ND	NA	12.18	6,931.39	NA	7 - 19	Chinle/Alluvium Interface
	MKTF-09	02/28/21	4.00	22.70	14.76	0.13	11.96	6,931.61	6931.71	7 - 19	Chinle/Alluvium Interface
	MKTF-09	03/31/21	4.00	22.70	14.85	0.02	11.94	6,931.63	6931.65	7 - 19	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-09	04/26/21	4.00	22.70	14.79	0.05	11.91	6,931.66	6931.70	7 - 19	Chinle/Alluvium Interface
	MKTF-09	05/20/21	4.00	22.70	14.98	0.18	12.23	6,931.34	6931.48	7 - 19	Chinle/Alluvium Interface
	MKTF-09	06/01/21	4.00	22.70	14.92	0.03	12.02	6,931.55	6931.57	7 - 19	Chinle/Alluvium Interface
	MKTF-09	07/06/21	4.00	22.70	15.20	0.02	12.29	6,931.28	6931.30	7 - 19	Chinle/Alluvium Interface
	MKTF-09	08/26/21	4.00	22.70	15.11	0.04	12.22	6,931.35	6931.38	7 - 19	Chinle/Alluvium Interface
	MKTF-09	09/07/21	4.00	22.70	15.18	0.03	12.28	6,931.29	6931.31	7 - 19	Chinle/Alluvium Interface
	MKTF-09	10/27/21	4.00	22.70	ND	NA	12.07	6,931.50	NA	7 - 19	Chinle/Alluvium Interface
	MKTF-09	11/17/21	4.00	22.70	ND	NA	12.14	6,931.43	NA	7 - 19	Chinle/Alluvium Interface
	MKTF-09	12/03/21	4.00	22.70	15.09	0.04	12.20	6,931.37	6931.40	7 - 19	Chinle/Alluvium Interface
	MKTF-09	01/10/22	4.00	22.70	15.28	0.03	12.38	6,931.19	6931.21	7 - 19	Chinle/Alluvium Interface
	MKTF-09	02/28/22	4.00	22.70	15.12	0.16	12.35	6,931.22	6931.35	7 - 19	Chinle/Alluvium Interface
	MKTF-09	03/02/22	4.00	22.70	15.11	0.04	12.22	6,931.35	6931.38	7 - 19	Chinle/Alluvium Interface
	MKTF-09	04/27/22	4.00	22.70	ND	NA	13.12	6,930.45	NA	7 - 19	Chinle/Alluvium Interface
	MKTF-09	05/05/22	4.00	22.70	ND	NA	13.08	6,930.49	NA	7 - 19	Chinle/Alluvium Interface
	MKTF-09	06/01/22	4.00	22.70	15.13	0.03	12.23	6,931.34	6931.36	7 - 19	Chinle/Alluvium Interface
	MKTF-09	07/06/22	4.00	22.70	15.77	0.03	12.87	6,930.70	6930.72	7 - 19	Chinle/Alluvium Interface
11/11/13	MKTF-09	08/08/22	4.00	22.70	16.02	0.03	13.12	6,930.45	6930.47	7 - 19	Chinle/Alluvium Interface
	MKTF-09	09/01/22	4.00	22.70	15.20	0.04	12.31	6,931.26	6931.29	7 - 19	Chinle/Alluvium Interface
	MKTF-09	10/03/22	4.00	22.70	15.15	0.05	12.27	6,931.30	6931.34	7 - 19	Chinle/Alluvium Interface
	MKTF-09	11/02/22	4.00	22.70	15.12	0.07	12.26	6,931.31	6931.37	7 - 19	Chinle/Alluvium Interface
	MKTF-09	12/06/22	4.00	22.70	15.32	0.08	12.47	6,931.10	6931.16	7 - 19	Chinle/Alluvium Interface
10/31/13	MKTF-10	03/16/15	4.00	15.99	ND	0.00	9.31	6,928.20	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	06/04/15	4.00	15.99	ND	0.00	9.17	6,928.34	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	08/18/15	4.00	15.99	ND	0.00	9.07	6,928.44	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	11/03/15	4.00	15.99	ND	0.00	9.19	6,928.32	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	02/29/16	4.00	15.99	ND	0.00	8.95	6,928.56	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	06/09/16	4.00	15.99	ND	0.00	8.55	6,928.96	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	09/11/16	4.00	15.99	ND	0.00	8.80	6,928.71	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	11/03/16	4.00	15.99	ND	0.00	9.19	6,928.32	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	03/02/17	4.00	15.99	ND	0.00	7.82	6,929.69	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	06/07/17	4.00	15.99	ND	0.00	7.37	6,930.14	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	09/27/17	4.00	15.99	ND	0.00	7.13	6,930.38	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	11/29/17	4.00	15.99	ND	0.00	7.35	6,930.16	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	02/14/18	4.00	16.10	ND	0.00	7.65	6,929.86	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	04/25/18	4.00	16.05	ND	0.00	7.40	6,930.11	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	08/16/18	4.00	16.28	ND	0.00	7.43	6,930.08	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	11/19/18	4.00	15.99	ND	0.00	7.60	6,929.91	NA	7 - 17	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-10	03/25/19	4.00	15.99	ND	0.00	6.05	6,931.46	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	05/13/19	4.00	15.99	ND	0.00	6.58	6,930.93	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	08/21/19	4.00	16.28	ND	0.00	8.00	6,929.51	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	10/30/19	4.00	15.99	ND	0.00	7.63	6,929.88	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	03/02/20	4.00	15.99	ND	0.00	8.02	6,929.49	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	06/25/20	4.00	15.99	ND	0.00	7.42	6,930.09	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	09/18/20	4.00	16.41	7.52	0.01	7.88	6,929.63	6929.64	7 - 17	Chinle/Alluvium Interface
	MKTF-10	11/10/20	4.00	16.41	ND	0.00	8.14	6,929.37	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	12/03/20	4.00	16.50	ND	0.00	8.15	6,929.36	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	01/28/21	4.00	16.50	ND	NA	8.26	6,929.25	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	02/28/21	4.00	16.50	ND	NA	8.24	6,929.27	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	03/31/21	4.00	16.50	ND	NA	8.09	6,929.42	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	04/26/21	4.00	16.50	ND	NA	8.38	6,929.13	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	05/20/21	4.00	16.50	ND	NA	8.27	6,929.24	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	06/01/21	4.00	16.50	ND	NA	8.04	6,929.47	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	07/06/21	4.00	16.50	ND	NA	8.79	6,928.72	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	08/26/21	4.00	16.50	ND	NA	8.45	6,929.06	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	09/09/21	4.00	16.50	ND	NA	8.55	6,928.96	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	10/27/21	4.00	16.50	ND	NA	8.35	6,929.16	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	11/17/21	4.00	16.50	ND	NA	8.49	6,929.02	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	12/15/21	4.00	16.60	ND	NA	8.69	6,928.82	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	01/10/22	4.00	16.60	ND	NA	10.06	6,927.45	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	02/28/22	4.00	16.60	ND	NA	9.90	6,927.61	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	03/01/22	4.00	16.61	ND	NA	8.65	6,928.86	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	04/27/22	4.00	16.61	ND	NA	9.22	6,928.29	NA	7 - 17	Chinle/Alluvium Interface
10/31/13	MKTF-10	05/05/22	4.00	16.61	ND	NA	9.80	6,927.71	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	06/01/22	4.00	16.61	ND	NA	8.65	6,928.86	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-10	07/06/22	4.00	16.61	8.11	0.25	8.71	6,928.80	6929.00	7 - 17	Chinle/Alluvium Interface
	MKTF-10	08/08/22	4.00	16.61	7.83	0.27	8.45	6,929.06	6929.28	7 - 17	Chinle/Alluvium Interface
	MKTF-10	09/01/22	4.00	16.61	8.09	0.12	8.56	6,928.95	6929.05	7 - 17	Chinle/Alluvium Interface
	MKTF-10	10/03/22	4.00	16.61	8.13	0.12	8.60	6,928.91	6929.01	7 - 17	Chinle/Alluvium Interface
	MKTF-10	11/02/22	4.00	16.61	8.15	0.08	8.58	6,928.93	6928.99	7 - 17	Chinle/Alluvium Interface
	MKTF-10	12/06/22	4.00	16.61	8.20	0.09	8.64	6,928.87	6928.94	7 - 17	Chinle/Alluvium Interface
10/31/13	MKTF-11	03/16/15	4.00	18.14	ND	0.00	9.07	6,922.54	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	06/04/15	4.00	18.14	ND	0.00	9.27	6,922.34	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	08/18/15	4.00	18.14	ND	0.00	8.72	6,922.89	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	11/03/15	4.00	18.14	ND	0.00	8.90	6,922.71	NA	8 - 18	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-11	02/29/16	4.00	18.14	ND	0.00	9.07	6,922.54	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	06/09/16	4.00	18.14	ND	0.00	8.93	6,922.68	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	09/11/16	4.00	18.14	ND	0.00	8.97	6,922.64	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	11/03/16	4.00	18.14	ND	0.00	8.90	6,922.71	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	03/02/17	4.00	18.14	ND	0.00	7.23	6,924.38	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	06/07/17	4.00	18.14	ND	0.00	7.66	6,923.95	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	09/26/17	4.00	18.14	ND	0.00	6.97	6,924.64	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	11/29/17	4.00	18.14	ND	0.00	8.27	6,923.34	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	02/08/18	4.00	18.31	ND	0.00	8.14	6,923.47	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	04/25/18	4.00	18.39	ND	0.00	8.12	6,923.49	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	08/16/18	4.00	18.48	ND	0.00	7.75	6,923.86	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	11/19/18	4.00	18.14	ND	0.00	7.47	6,924.14	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	03/25/19	4.00	18.14	ND	0.00	5.23	6,926.38	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	05/13/19	4.00	18.14	ND	0.00	5.51	6,926.10	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	08/21/19	4.00	18.48	ND	0.00	6.49	6,925.12	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	10/30/19	4.00	18.14	ND	0.00	7.33	6,924.28	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	03/02/20	4.00	18.14	ND	0.00	8.16	6,923.45	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	06/26/20	4.00	18.14	7.67	0.01	7.95	6,923.66	6923.67	8 - 18	Chinle/Alluvium Interface
	MKTF-11	09/18/20	4.00	18.45	7.59	0.01	7.87	6,923.74	6923.75	8 - 18	Chinle/Alluvium Interface
	MKTF-11	11/10/20	4.00	18.45	ND	0.00	7.88	6,923.73	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	12/03/20	4.00	18.45	7.89	0.02	8.18	6,923.43	6923.45	8 - 18	Chinle/Alluvium Interface
	MKTF-11	01/28/21	4.00	18.45	ND	NA	8.15	6,923.46	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	02/28/21	4.00	18.53	ND	NA	8.11	6,923.50	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	03/31/21	4.00	18.53	ND	NA	7.90	6,923.71	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	04/26/21	4.00	18.53	ND	NA	7.97	6,923.64	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	05/20/21	4.00	18.53	ND	NA	7.94	6,923.67	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	06/01/21	4.00	18.53	ND	NA	7.83	6,923.78	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	07/06/21	4.00	18.53	ND	NA	8.57	6,923.04	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	08/26/21	4.00	18.53	ND	NA	8.45	6,923.16	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	09/09/21	4.00	18.53	ND	NA	8.86	6,922.75	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	10/27/21	4.00	18.53	ND	NA	8.42	6,923.19	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	11/17/21	4.00	18.53	ND	NA	8.46	6,923.15	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	12/15/21	4.00	18.53	ND	NA	8.69	6,922.92	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	01/10/22	4.00	18.53	ND	NA	8.79	6,922.82	NA	8 - 18	Chinle/Alluvium Interface
10/31/13	MKTF-11	02/28/22	4.00	18.53	ND	NA	8.71	6,922.90	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	03/02/22	4.00	18.53	ND	NA	8.11	6,923.50	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	04/27/22	4.00	18.53	ND	NA	8.55	6,923.06	NA	8 - 18	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-11	05/05/22	4.00	18.53	ND	NA	8.71	6,922.90	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	06/01/22	4.00	18.50	ND	NA	9.07	6,922.54	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	07/06/22	4.00	18.49	ND	NA	8.80	6,922.81	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	08/08/22	4.00	18.48	ND	NA	9.23	6,922.38	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	09/01/22	4.00	18.46	ND	NA	8.96	6,922.65	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	10/03/22	4.00	18.45	ND	NA	9.01	6,922.60	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	11/02/22	4.00	18.43	ND	NA	9.01	6,922.60	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-11	12/06/22	4.00	18.42	8.77	0.05	9.09	6,922.52	6922.56	8 - 18	Chinle/Alluvium Interface
11/07/13	MKTF-12	03/12/15	4.00	25.60	19.13	1.81	18.53	6,921.17	6,922.62	12 - 22	Chinle/Alluvium Interface
	MKTF-12	06/09/15	4.00	25.60	19.47	2.18	19.24	6,920.46	6,922.20	12 - 22	Chinle/Alluvium Interface
	MKTF-12	08/18/15	4.00	25.60	19.46	0.53	17.58	6,922.12	6,922.54	12 - 22	Chinle/Alluvium Interface
	MKTF-12	11/03/15	4.00	25.60	19.66	0.61	17.86	6,921.84	6,922.33	12 - 22	Chinle/Alluvium Interface
	MKTF-12	03/12/16	4.00	25.60	19.13	1.81	18.53	6,921.17	6,922.62	12 - 22	Chinle/Alluvium Interface
	MKTF-12	06/10/16	4.00	25.60	18.23	1.32	17.14	6,922.56	6,923.62	12 - 22	Chinle/Alluvium Interface
	MKTF-12	09/10/16	4.00	25.60	19.23	0.32	17.14	6,922.56	6,922.82	12 - 22	Chinle/Alluvium Interface
	MKTF-12	11/03/16	4.00	25.60	19.66	0.61	17.86	6,921.84	6,922.33	12 - 22	Chinle/Alluvium Interface
	MKTF-12	03/15/17	4.00	25.60	17.75	0.06	15.40	6,924.30	6,924.35	12 - 22	Chinle/Alluvium Interface
	MKTF-12	06/07/17	4.00	25.60	18.60	0.19	16.38	6,923.32	6,923.47	12 - 22	Chinle/Alluvium Interface
	MKTF-12	10/03/17	4.00	25.60	17.30	0.13	15.02	6,924.68	6,924.78	12 - 22	Chinle/Alluvium Interface
	MKTF-12	11/27/17	4.00	25.60	18.43	0.13	16.15	6,923.55	6,923.65	12 - 22	Chinle/Alluvium Interface
	MKTF-12	02/07/18	4.00	25.60	19.11	0.17	16.87	6,922.83	6,922.97	12 - 22	Chinle/Alluvium Interface
	MKTF-12	04/26/18	4.00	25.58	19.11	0.12	16.82	6,922.88	6,922.98	12 - 22	Chinle/Alluvium Interface
	MKTF-12	08/15/18	4.00	25.60	19.01	0.19	16.79	6,922.91	6,923.06	12 - 22	Chinle/Alluvium Interface
	MKTF-12	11/27/18	4.00	25.60	18.40	0.14	16.13	6,923.57	6,923.68	12 - 22	Chinle/Alluvium Interface
	MKTF-12	03/26/19	4.00	25.60	16.65	0.35	14.59	6,925.11	6,925.39	12 - 22	Chinle/Alluvium Interface
	MKTF-12	05/09/19	4.00	25.60	17.25	0.10	14.94	6,924.76	6,924.84	12 - 22	Chinle/Alluvium Interface
	MKTF-12	08/20/19	4.00	25.60	17.92	0.09	15.60	6,924.10	6,924.17	12 - 22	Chinle/Alluvium Interface
	MKTF-12	10/28/19	4.00	25.60	18.35	0.12	16.06	6,923.64	6,923.74	12 - 22	Chinle/Alluvium Interface
	MKTF-12	11/12/19	4.00	25.60	18.14	0.08	15.81	6,923.89	6923.95	12 - 22	Chinle/Alluvium Interface
	MKTF-12	11/13/19	4.00	25.60	18.02	0.10	15.71	6,923.99	6924.07	12 - 22	Chinle/Alluvium Interface
	MKTF-12	11/14/19	4.00	25.60	18.11	0.08	15.78	6,923.92	6923.98	12 - 22	Chinle/Alluvium Interface
	MKTF-12	11/15/19	4.00	25.60	18.10	0.08	15.77	6,923.93	6923.99	12 - 22	Chinle/Alluvium Interface
	MKTF-12	11/19/19	4.00	25.60	18.00	0.09	15.68	6,924.02	6924.09	12 - 22	Chinle/Alluvium Interface
	MKTF-12	11/21/19	4.00	25.60	18.04	0.16	15.79	6,923.91	6924.04	12 - 22	Chinle/Alluvium Interface
	MKTF-12	12/02/19	4.00	25.60	17.70	0.05	15.34	6,924.36	6924.40	12 - 22	Chinle/Alluvium Interface
	MKTF-12	02/27/20	4.00	25.60	17.84	0.08	15.51	6,924.19	6924.25	12 - 22	Chinle/Alluvium Interface
	MKTF-12	06/29/20	4.00	25.60	19.13	0.12	16.84	6,922.86	6922.96	12 - 22	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-12	09/18/20	4.00	25.82	18.64	0.01	16.24	6,923.46	6923.47	12 - 22	Chinle/Alluvium Interface
	MKTF-12	11/10/20	4.00	25.82	17.97	0.03	15.59	6,924.11	6924.13	12 - 22	Chinle/Alluvium Interface
	MKTF-12	12/03/20	4.00	25.89	18.90	0.16	16.65	6,923.05	6923.18	12 - 22	Chinle/Alluvium Interface
	MKTF-12	01/28/21	4.00	25.89	19.46	0.17	17.22	6,922.48	6922.62	12 - 22	Chinle/Alluvium Interface
	MKTF-12	02/28/21	4.00	25.85	18.82	0.10	16.51	6,923.19	6923.27	12 - 22	Chinle/Alluvium Interface
	MKTF-12	03/31/21	4.00	25.85	18.59	0.04	16.22	6,923.48	6923.51	12 - 22	Chinle/Alluvium Interface
11/07/13	MKTF-12	04/26/21	4.00	25.85	18.49	0.11	16.19	6,923.51	6923.60	12 - 22	Chinle/Alluvium Interface
	MKTF-12	05/20/21	4.00	25.85	18.70	0.03	16.32	6,923.38	6923.40	12 - 22	Chinle/Alluvium Interface
	MKTF-12	06/01/21	4.00	25.85	19.03	0.05	16.67	6,923.03	6923.07	12 - 22	Chinle/Alluvium Interface
	MKTF-12	07/06/21	4.00	25.85	18.98	0.05	16.62	6,923.08	6923.12	12 - 22	Chinle/Alluvium Interface
	MKTF-12	08/26/21	4.00	25.85	19.12	0.10	16.81	6,922.89	6922.97	12 - 22	Chinle/Alluvium Interface
	MKTF-12	09/09/21	4.00	25.85	19.01	0.08	16.68	6,923.02	6923.08	12 - 22	Chinle/Alluvium Interface
	MKTF-12	10/27/21	4.00	25.85	19.00	0.03	16.62	6,923.08	6923.10	12 - 22	Chinle/Alluvium Interface
	MKTF-12	11/17/21	4.00	25.85	18.98	0.10	16.67	6,923.03	6923.11	12 - 22	Chinle/Alluvium Interface
	MKTF-12	12/03/21	4.00	25.85	19.09	0.11	16.79	6,922.91	6923.00	12 - 22	Chinle/Alluvium Interface
	MKTF-12	01/10/22	4.00	25.85	18.89	0.21	16.69	6,923.01	6923.18	12 - 22	Chinle/Alluvium Interface
	MKTF-12	02/28/22	4.00	25.85	19.12	0.08	16.79	6,922.91	6922.97	12 - 22	Chinle/Alluvium Interface
	MKTF-12	03/02/22	4.00	25.88	19.12	0.07	16.78	6,922.92	6922.98	12 - 22	Chinle/Alluvium Interface
	MKTF-12	04/27/22	4.00	25.88	19.50	0.05	17.14	6,922.56	6922.60	12 - 22	Chinle/Alluvium Interface
	MKTF-12	05/05/22	4.00	25.88	19.33	0.08	17.00	6,922.70	6922.76	12 - 22	Chinle/Alluvium Interface
	MKTF-12	06/01/22	4.00	25.90	19.20	0.07	16.86	6,922.84	6922.90	12 - 22	Chinle/Alluvium Interface
	MKTF-12	07/06/22	4.00	25.92	16.81	0.08	14.48	6,925.22	6925.28	12 - 22	Chinle/Alluvium Interface
	MKTF-12	08/08/22	4.00	25.94	17.88	0.07	15.54	6,924.16	6924.22	12 - 22	Chinle/Alluvium Interface
	MKTF-12	09/01/22	4.00	25.96	19.43	0.07	17.09	6,922.61	6922.67	12 - 22	Chinle/Alluvium Interface
	MKTF-12	10/03/22	4.00	25.98	19.60	0.15	17.34	6,922.36	6922.48	12 - 22	Chinle/Alluvium Interface
	MKTF-12	11/02/22	4.00	26.00	19.63	0.13	17.35	6,922.35	6922.45	12 - 22	Chinle/Alluvium Interface
	MKTF-12	12/06/22	4.00	26.02	19.95	0.16	17.70	6,922.00	6922.13	12 - 22	Chinle/Alluvium Interface
11/12/13	MKTF-13	03/12/15	4.00	21.25	13.75	2.07	14.31	6,919.36	6,921.02	8 - 18	Chinle/Alluvium Interface
	MKTF-13	06/09/15	4.00	21.25	14.22	1.65	14.36	6,919.31	6,920.63	8 - 18	Chinle/Alluvium Interface
	MKTF-13	08/21/15	4.00	21.25	13.94	1.68	14.11	6,919.56	6,920.90	8 - 18	Chinle/Alluvium Interface
	MKTF-13	11/03/15	4.00	21.25	14.22	1.33	14.04	6,919.63	6,920.69	8 - 18	Chinle/Alluvium Interface
	MKTF-13	03/12/16	4.00	21.25	13.75	2.07	14.31	6,919.36	6,921.02	8 - 18	Chinle/Alluvium Interface
	MKTF-13	06/10/16	4.00	21.25	12.99	1.20	12.68	6,920.99	6,921.95	8 - 18	Chinle/Alluvium Interface
	MKTF-13	09/10/16	4.00	21.25	13.88	0.98	13.35	6,920.32	6,921.10	8 - 18	Chinle/Alluvium Interface
	MKTF-13	11/03/16	4.00	21.25	14.22	1.33	14.04	6,919.63	6,920.69	8 - 18	Chinle/Alluvium Interface
	MKTF-13	03/15/17	4.00	21.25	ND	0.00	11.09	6,922.58	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-13	06/07/17	4.00	21.25	13.35	0.06	11.90	6,921.77	6,921.82	8 - 18	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-13	10/03/17	4.00	21.25	11.91	0.03	10.43	6,923.24	6,923.26	8 - 18	Chinle/Alluvium Interface
	MKTF-13	11/27/17	4.00	21.25	13.14	0.01	11.64	6,922.03	6,922.04	8 - 18	Chinle/Alluvium Interface
	MKTF-13	02/07/18	4.00	21.25	13.77	0.01	12.27	6,921.40	6,921.41	8 - 18	Chinle/Alluvium Interface
	MKTF-13	04/26/18	4.00	21.66	ND	0.00	12.24	6,921.43	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-13	08/15/18	4.00	21.55	ND	0.00	12.17	6,921.50	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-13	11/27/18	4.00	21.25	ND	0.00	11.21	6,922.46	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-13	03/26/19	4.00	21.25	ND	0.00	9.39	6,924.28	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-13	05/09/19	4.00	21.25	ND	0.00	10.09	6,923.58	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-13	08/20/19	4.00	21.55	ND	0.00	10.94	6,922.73	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-13	10/28/19	4.00	21.25	ND	0.00	11.44	6,922.23	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-13	11/12/19	4.00	21.25	ND	0.00	11.31	6,922.36	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-13	11/13/19	4.00	21.25	ND	0.00	11.24	6,922.43	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-13	11/14/19	4.00	21.25	ND	0.00	11.34	6,922.33	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-13	11/15/19	4.00	21.25	ND	0.00	11.29	6,922.38	NA	8 - 18	Chinle/Alluvium Interface
11/12/13	MKTF-13	11/19/19	4.00	21.25	ND	0.00	11.20	6,922.47	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-13	11/21/19	4.00	21.25	ND	0.00	11.24	6,922.43	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-13	12/02/19	4.00	21.25	ND	0.00	10.89	6,922.78	NA	8 - 18	Chinle/Alluvium Interface
	MKTF-13	02/27/20	4.00	21.25	11.13	6.18	15.80	6,917.87	6922.81	8 - 18	Chinle/Alluvium Interface
	MKTF-13	06/29/20	4.00	21.25	12.67	5.54	16.70	6,916.97	6921.40	8 - 18	Chinle/Alluvium Interface
	MKTF-13	09/18/20	4.00	22.13	12.55	4.37	15.41	6,918.26	6921.76	8 - 18	Chinle/Alluvium Interface
	MKTF-13	11/10/20	4.00	22.13	11.98	4.38	14.85	6,918.82	6922.32	8 - 18	Chinle/Alluvium Interface
	MKTF-13	12/03/20	4.00	21.92	12.84	3.81	15.14	6,918.53	6921.58	8 - 18	Chinle/Alluvium Interface
	MKTF-13	01/28/21	4.00	21.92	13.25	4.01	15.75	6,917.92	6921.13	8 - 18	Chinle/Alluvium Interface
	MKTF-13	02/28/21	4.00	21.75	12.60	4.30	15.39	6,918.28	6921.72	8 - 18	Chinle/Alluvium Interface
	MKTF-13	03/31/21	4.00	21.75	12.21	4.44	15.14	6,918.53	6922.08	8 - 18	Chinle/Alluvium Interface
	MKTF-13	04/26/21	4.00	21.75	12.25	4.08	14.82	6,918.85	6922.11	8 - 18	Chinle/Alluvium Interface
	MKTF-13	05/20/21	4.00	21.75	12.11	4.59	15.19	6,918.48	6922.15	8 - 18	Chinle/Alluvium Interface
	MKTF-13	06/01/21	4.00	21.75	11.93	3.74	14.16	6,919.51	6922.50	8 - 18	Chinle/Alluvium Interface
	MKTF-13	07/06/21	4.00	21.75	13.85	3.65	15.99	6,917.68	6920.60	8 - 18	Chinle/Alluvium Interface
	MKTF-13	08/09/21	4.00	21.75	12.80	4.38	15.67	6,918.00	6921.50	8 - 18	Chinle/Alluvium Interface
	MKTF-13	09/07/21	4.00	21.75	13.00	3.60	15.09	6,918.58	6921.46	8 - 18	Chinle/Alluvium Interface
	MKTF-13	10/27/21	4.00	21.75	13.05	2.91	14.45	6,919.22	6921.55	8 - 18	Chinle/Alluvium Interface
	MKTF-13	11/02/21	4.00	21.75	13.11	2.84	14.44	6,919.23	6921.50	8 - 18	Chinle/Alluvium Interface
	MKTF-13	12/03/21	4.00	21.75	13.47	2.35	14.31	6,919.36	6921.24	8 - 18	Chinle/Alluvium Interface
	MKTF-13	01/10/22	4.00	21.75	10.83	3.95	13.27	6,920.40	6923.56	8 - 18	Chinle/Alluvium Interface
	MKTF-13	02/28/22	4.00	21.75	10.80	3.95	13.24	6,920.43	6923.59	8 - 18	Chinle/Alluvium Interface
	MKTF-13	03/01/22	4.00	21.75	13.44	2.34	14.27	6,919.40	6921.27	8 - 18	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-13	04/27/22	4.00	21.75	13.97	1.07	13.53	6,920.14	6921.00	8 - 18	Chinle/Alluvium Interface
	MKTF-13	05/03/22	4.00	21.75	14.04	1.03	13.56	6,920.11	6920.93	8 - 18	Chinle/Alluvium Interface
	MKTF-13	06/01/22	4.00	21.75	13.79	1.36	13.64	6,920.03	6921.12	8 - 18	Chinle/Alluvium Interface
	MKTF-13	07/06/22	4.00	21.75	14.12	1.54	14.15	6,919.52	6920.75	8 - 18	Chinle/Alluvium Interface
	MKTF-13	08/08/22	4.00	21.75	13.62	1.75	13.86	6,919.81	6921.21	8 - 18	Chinle/Alluvium Interface
	MKTF-13	09/01/22	4.00	21.75	13.60	1.51	13.60	6,920.07	6921.28	8 - 18	Chinle/Alluvium Interface
	MKTF-13	10/03/22	4.00	21.75	13.38	1.65	13.52	6,920.15	6921.47	8 - 18	Chinle/Alluvium Interface
	MKTF-13	11/02/22	4.00	21.75	13.40	1.60	13.49	6,920.18	6921.46	8 - 18	Chinle/Alluvium Interface
	MKTF-13	12/09/22	4.00	21.75	14.88	0.82	14.19	6,919.48	6920.14	8 - 18	Chinle/Alluvium Interface
11/12/13	MKTF-14	03/12/15	4.00	17.46	7.60	0.55	5.78	6,919.87	6,920.31	4 - 14	Chinle/Alluvium Interface
	MKTF-14	06/09/15	4.00	17.46	8.00	0.37	6.00	6,919.65	6,919.95	4 - 14	Chinle/Alluvium Interface
	MKTF-14	08/21/15	4.00	17.46	7.61	0.42	5.66	6,919.99	6,920.33	4 - 14	Chinle/Alluvium Interface
	MKTF-14	11/03/15	4.00	17.46	7.71	0.39	5.73	6,919.92	6,920.23	4 - 14	Chinle/Alluvium Interface
	MKTF-14	03/12/16	4.00	17.46	7.60	0.55	5.78	6,919.87	6,920.31	4 - 14	Chinle/Alluvium Interface
	MKTF-14	06/10/16	4.00	17.46	7.13	2.33	7.09	6,918.56	6,920.42	4 - 14	Chinle/Alluvium Interface
	MKTF-14	09/10/16	4.00	17.46	7.31	1.69	6.63	6,919.02	6,920.37	4 - 14	Chinle/Alluvium Interface
	MKTF-14	11/03/16	4.00	17.46	7.71	0.39	5.73	6,919.92	6,920.23	4 - 14	Chinle/Alluvium Interface
	MKTF-14	03/08/17	4.00	17.46	5.77	0.98	4.38	6,921.27	6,922.05	4 - 14	Chinle/Alluvium Interface
	MKTF-14	06/07/17	4.00	17.46	6.68	0.84	5.15	6,920.50	6,921.17	4 - 14	Chinle/Alluvium Interface
	MKTF-14	10/03/17	4.00	17.46	5.70	0.41	3.74	6,921.91	6,922.24	4 - 14	Chinle/Alluvium Interface
	MKTF-14	11/27/17	4.00	17.46	6.56	0.37	4.56	6,921.09	6,921.39	4 - 14	Chinle/Alluvium Interface
	MKTF-14	02/07/18	4.00	17.46	6.98	0.41	5.02	6,920.63	6,920.96	4 - 14	Chinle/Alluvium Interface
	MKTF-14	04/26/18	4.00	17.43	7.01	0.38	5.02	6,920.63	6,920.93	4 - 14	Chinle/Alluvium Interface
11/12/13	MKTF-14	08/15/18	4.00	17.45	6.95	0.35	4.93	6,920.72	6,921.00	4 - 14	Chinle/Alluvium Interface
	MKTF-14	11/27/18	4.00	17.46	6.26	0.39	4.28	6,921.37	6,921.68	4 - 14	Chinle/Alluvium Interface
	MKTF-14	03/25/19	4.00	17.46	3.89	0.36	1.88	6,923.77	6,924.06	4 - 14	Chinle/Alluvium Interface
	MKTF-14	05/09/19	4.00	17.46	4.65	0.39	2.67	6,922.98	6,923.29	4 - 14	Chinle/Alluvium Interface
	MKTF-14	08/20/19	4.00	17.45	5.64	0.28	3.55	6,922.10	6,922.32	4 - 14	Chinle/Alluvium Interface
	MKTF-14	10/28/19	4.00	17.46	6.02	0.37	4.02	6,921.63	6,921.93	4 - 14	Chinle/Alluvium Interface
	MKTF-14	02/27/20	4.00	17.46	5.35	0.30	3.28	6,922.37	6922.61	4 - 14	Chinle/Alluvium Interface
	MKTF-14	06/29/20	4.00	17.46	6.38	2.20	6.21	6,919.44	6921.20	4 - 14	Chinle/Alluvium Interface
	MKTF-14	09/18/20	4.00	17.32	6.18	1.98	5.79	6,919.86	6921.44	4 - 14	Chinle/Alluvium Interface
	MKTF-14	11/10/20	4.00	17.32	5.98	0.30	3.91	6,921.74	6921.98	4 - 14	Chinle/Alluvium Interface
	MKTF-14	12/03/20	4.00	17.55	6.79	0.27	4.69	6,920.96	6921.18	4 - 14	Chinle/Alluvium Interface
	MKTF-14	01/28/21	4.00	17.55	7.11	0.30	5.04	6,920.61	6920.85	4 - 14	Chinle/Alluvium Interface
	MKTF-14	02/28/21	4.00	17.55	6.64	0.34	4.61	6,921.04	6921.31	4 - 14	Chinle/Alluvium Interface
	MKTF-14	03/31/21	4.00	17.55	6.14	0.12	3.89	6,921.76	6921.86	4 - 14	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-14	04/26/21	4.00	17.55	6.11	0.07	3.81	6,921.84	6921.90	4 - 14	Chinle/Alluvium Interface
	MKTF-14	05/20/21	4.00	17.55	6.20	0.11	3.94	6,921.71	6921.80	4 - 14	Chinle/Alluvium Interface
	MKTF-14	06/01/21	4.00	17.55	5.81	0.16	3.60	6,922.05	6922.18	4 - 14	Chinle/Alluvium Interface
	MKTF-14	07/21/21	4.00	17.55	6.23	0.45	4.31	6,921.34	6921.70	4 - 14	Chinle/Alluvium Interface
	MKTF-14	08/25/21	4.00	17.55	7.00	0.17	4.80	6,920.85	6920.99	4 - 14	Chinle/Alluvium Interface
	MKTF-14	09/07/21	4.00	17.55	7.02	0.17	4.82	6,920.83	6920.97	4 - 14	Chinle/Alluvium Interface
	MKTF-14	10/27/21	4.00	17.55	6.93	0.02	4.58	6,921.07	6921.09	4 - 14	Chinle/Alluvium Interface
	MKTF-14	11/02/21	4.00	17.55	ND	NA	4.64	6,921.01	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-14	12/03/21	4.00	17.55	7.17	0.22	5.02	6,920.63	6920.81	4 - 14	Chinle/Alluvium Interface
	MKTF-14	01/10/22	4.00	17.55	7.20	0.24	5.07	6,920.58	6920.77	4 - 14	Chinle/Alluvium Interface
	MKTF-14	02/28/22	4.00	17.55	7.12	0.30	5.05	6,920.60	6920.84	4 - 14	Chinle/Alluvium Interface
	MKTF-14	03/01/22	4.00	17.55	7.15	0.21	4.99	6,920.66	6920.83	4 - 14	Chinle/Alluvium Interface
	MKTF-14	04/27/22	4.00	17.55	7.28	0.23	5.14	6,920.51	6920.69	4 - 14	Chinle/Alluvium Interface
	MKTF-14	05/02/22	4.00	17.55	7.29	0.25	5.17	6,920.48	6920.68	4 - 14	Chinle/Alluvium Interface
	MKTF-14	06/01/22	4.00	17.58	7.25	0.45	5.33	6,920.32	6920.68	4 - 14	Chinle/Alluvium Interface
	MKTF-14	07/06/22	4.00	17.59	6.09	0.26	3.98	6,921.67	6921.88	4 - 14	Chinle/Alluvium Interface
	MKTF-14	08/08/22	4.00	17.61	6.97	0.01	4.61	6,921.04	6921.05	4 - 14	Chinle/Alluvium Interface
	MKTF-14	09/01/22	4.00	17.62	7.18	0.11	4.92	6,920.73	6920.82	4 - 14	Chinle/Alluvium Interface
	MKTF-14	10/03/22	4.00	17.64	6.98	0.16	4.77	6,920.88	6921.01	4 - 14	Chinle/Alluvium Interface
	MKTF-14	11/02/22	4.00	17.65	7.01	0.14	4.78	6,920.87	6920.98	4 - 14	Chinle/Alluvium Interface
	MKTF-14	12/09/22	4.00	17.67	7.41	0.14	5.18	6,920.47	6920.58	4 - 14	Chinle/Alluvium Interface
10/29/13	MKTF-15	03/16/15	2.00	19.48	13.17	0.75	14.18	6,929.56	6,930.16	9 - 19	Chinle/Alluvium Interface
	MKTF-15	06/04/15	2.00	19.48	13.20	0.58	14.04	6,929.70	6,930.16	9 - 19	Chinle/Alluvium Interface
	MKTF-15	08/18/15	2.00	19.48	13.09	0.25	13.60	6,930.14	6,930.34	9 - 19	Chinle/Alluvium Interface
	MKTF-15	11/03/15	2.00	19.48	12.90	0.65	13.81	6,929.93	6,930.45	9 - 19	Chinle/Alluvium Interface
	MKTF-15	03/16/16	2.00	19.48	13.17	0.75	14.18	6,929.56	6,930.16	9 - 19	Chinle/Alluvium Interface
10/29/13	MKTF-15	06/09/16	2.00	19.48	12.60	0.22	13.08	6,930.66	6,930.84	9 - 19	Chinle/Alluvium Interface
	MKTF-15	09/11/16	2.00	19.48	ND	0.00	13.26	6,930.48	NA	9 - 19	Chinle/Alluvium Interface
	MKTF-15	11/03/16	2.00	19.48	12.90	0.65	13.81	6,929.93	6,930.45	9 - 19	Chinle/Alluvium Interface
	MKTF-15	03/02/17	2.00	19.48	ND	0.00	12.41	6,931.33	NA	9 - 19	Chinle/Alluvium Interface
	MKTF-15	06/07/17	2.00	19.48	ND	0.00	12.19	6,931.55	NA	9 - 19	Chinle/Alluvium Interface
	MKTF-15	09/26/17	2.00	19.48	12.00	0.10	12.36	6,931.38	6,931.46	9 - 19	Chinle/Alluvium Interface
	MKTF-15	11/29/17	2.00	19.48	ND	0.00	12.39	6,931.35	NA	9 - 19	Chinle/Alluvium Interface
	MKTF-15	02/08/18	2.00	19.48	12.40	0.07	12.73	6,931.01	6,931.07	9 - 19	Chinle/Alluvium Interface
	MKTF-15	04/25/18	2.00	19.40	ND	0.00	12.46	6,931.28	NA	9 - 19	Chinle/Alluvium Interface
	MKTF-15	08/16/18	2.00	19.50	ND	0.00	12.66	6,931.08	NA	9 - 19	Chinle/Alluvium Interface
	MKTF-15	11/19/18	2.00	19.48	12.57	0.13	12.96	6,930.78	6,930.88	9 - 19	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-15	03/25/19	2.00	19.48	10.98	0.02	11.26	6,932.48	6,932.50	9 - 19	Chinle/Alluvium Interface
	MKTF-15	05/13/19	2.00	19.48	ND	0.00	11.85	6,931.89	NA	9 - 19	Chinle/Alluvium Interface
	MKTF-15	08/21/19	2.00	19.50	12.02	0.01	12.29	6,931.45	NA	9 - 19	Chinle/Alluvium Interface
	MKTF-15	10/30/19	2.00	19.48	12.65	0.05	12.96	6,930.78	6,930.82	9 - 19	Chinle/Alluvium Interface
	MKTF-15	02/03/20	2.00	19.48	13.02	0.09	13.37	6,930.37	6,930.44	9 - 19	Chinle/Alluvium Interface
	MKTF-15	06/26/20	2.00	19.48	13.11	0.06	13.43	6,930.31	6,930.36	9 - 19	Chinle/Alluvium Interface
	MKTF-15	09/18/20	2.00	19.18	13.00	0.03	13.29	6,930.45	6,930.47	9 - 19	Chinle/Alluvium Interface
	MKTF-15	11/10/20	2.00	19.18	13.25	0.25	13.76	6,929.98	6,930.18	9 - 19	Chinle/Alluvium Interface
	MKTF-15	12/03/20	2.00	19.52	13.39	0.21	13.86	6,929.88	6,930.05	9 - 19	Chinle/Alluvium Interface
	MKTF-15	01/28/21	2.00	19.52	13.54	0.21	14.01	6,929.73	6,929.90	9 - 19	Chinle/Alluvium Interface
	MKTF-15	02/28/21	2.00	19.53	13.45	0.07	13.78	6,929.96	6,930.02	9 - 19	Chinle/Alluvium Interface
	MKTF-15	03/31/21	2.00	19.53	13.39	0.03	13.68	6,930.06	6,930.08	9 - 19	Chinle/Alluvium Interface
	MKTF-15	04/26/21	2.00	19.53	13.11	0.21	13.58	6,930.16	6,930.33	9 - 19	Chinle/Alluvium Interface
	MKTF-15	05/20/21	2.00	19.53	13.51	0.07	13.84	6,929.90	6,929.96	9 - 19	Chinle/Alluvium Interface
	MKTF-15	06/01/21	2.00	19.53	13.43	0.04	13.73	6,930.01	6,930.04	9 - 19	Chinle/Alluvium Interface
	MKTF-15	07/21/21	2.00	19.53	13.30	0.76	14.32	6,929.42	6,930.03	9 - 19	Chinle/Alluvium Interface
	MKTF-15	08/25/21	2.00	19.53	13.40	0.75	14.41	6,929.33	6,929.93	9 - 19	Chinle/Alluvium Interface
	MKTF-15	09/07/21	2.00	19.53	13.29	0.62	14.17	6,929.57	6,930.07	9 - 19	Chinle/Alluvium Interface
	MKTF-15	10/27/21	2.00	19.53	13.35	0.45	14.06	6,929.68	6,930.04	9 - 19	Chinle/Alluvium Interface
	MKTF-15	11/17/21	2.00	19.53	13.34	0.50	14.10	6,929.64	6,930.04	9 - 19	Chinle/Alluvium Interface
	MKTF-15	12/03/21	2.00	19.53	13.27	0.69	14.22	6,929.52	6,930.07	9 - 19	Chinle/Alluvium Interface
	MKTF-15	01/10/22	2.00	19.53	13.12	0.76	14.14	6,929.60	6,930.21	9 - 19	Chinle/Alluvium Interface
	MKTF-15	02/28/22	2.00	19.53	13.12	0.75	14.13	6,929.61	6,930.21	9 - 19	Chinle/Alluvium Interface
	MKTF-15	03/02/22	2.00	19.55	13.30	0.70	14.26	6,929.48	6,930.04	9 - 19	Chinle/Alluvium Interface
	MKTF-15	04/27/22	2.00	19.55	13.40	1.95	15.61	6,928.13	6,929.69	9 - 19	Chinle/Alluvium Interface
	MKTF-15	05/05/22	2.00	19.55	13.33	1.09	14.68	6,929.06	6,929.93	9 - 19	Chinle/Alluvium Interface
	MKTF-15	06/01/22	2.00	19.61	13.21	0.64	14.11	6,929.63	6,930.14	9 - 19	Chinle/Alluvium Interface
	MKTF-15	07/06/22	2.00	19.63	11.95	0.61	12.82	6,930.92	6,931.41	9 - 19	Chinle/Alluvium Interface
	MKTF-15	08/08/22	2.00	19.66	12.33	0.57	13.16	6,930.58	6,931.04	9 - 19	Chinle/Alluvium Interface
	MKTF-15	09/01/22	2.00	19.69	13.54	1.16	14.96	6,928.78	6,929.71	9 - 19	Chinle/Alluvium Interface
	MKTF-15	10/03/22	2.00	19.72	13.69	0.80	14.75	6,928.99	6,929.63	9 - 19	Chinle/Alluvium Interface
	MKTF-15	11/02/22	2.00	19.75	13.70	0.75	14.71	6,929.03	6,929.63	9 - 19	Chinle/Alluvium Interface
	MKTF-15	12/06/22	2.00	19.78	13.96	0.63	14.85	6,928.89	6,929.39	9 - 19	Chinle/Alluvium Interface
11/07/13	MKTF-16	03/16/15	2.00	14.10	ND	0.00	11.35	6,939.65	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	06/08/15	2.00	14.10	ND	0.00	9.28	6,941.72	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	08/23/15	2.00	14.10	ND	0.00	10.21	6,940.79	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	11/03/15	2.00	14.10	ND	0.00	9.91	6,941.09	NA	4 - 14	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-16	02/29/16	2.00	14.10	ND	0.00	10.32	6,940.68	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	06/08/16	2.00	14.10	ND	0.00	10.00	6,941.00	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	09/11/16	2.00	14.10	ND	0.00	10.07	6,940.93	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	11/03/16	2.00	14.10	ND	0.00	9.91	6,941.09	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	03/14/17	2.00	14.10	ND	0.00	7.87	6,943.13	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	06/07/17	2.00	14.10	ND	0.00	8.08	6,942.92	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	09/26/17	2.00	14.10	ND	0.00	8.42	6,942.58	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	11/28/17	2.00	14.10	ND	0.00	8.64	6,942.36	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	02/14/18	2.00	14.10	ND	0.00	9.22	6,941.78	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	04/25/18	2.00	13.96	ND	0.00	8.77	6,942.23	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	08/16/18	2.00	14.08	ND	0.00	8.97	6,942.03	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	11/29/18	2.00	14.10	ND	0.00	9.96	6,941.04	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	02/20/19	2.00	14.10	ND	0.00	7.47	6,943.53	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	05/13/19	2.00	14.10	ND	0.00	8.77	6,942.23	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	08/21/19	2.00	14.08	ND	0.00	9.64	6,941.36	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	10/30/19	2.00	14.10	ND	0.00	10.31	6,940.69	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	02/05/20	2.00	14.10	ND	0.00	10.10	6,940.90	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	06/26/20	2.00	14.10	ND	0.00	9.96	6,941.04	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	09/18/20	2.00	10.92	9.18	0.01	9.61	6,941.39	6,941.40	4 - 14	Chinle/Alluvium Interface
	MKTF-16	11/10/20	2.00	10.92	ND	0.00	7.62	6,943.38	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	12/08/20	2.00	10.95	ND	0.00	10.12	6,940.88	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	01/28/21	2.00	10.95	ND	NA	6.57	6,944.43	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	02/28/21	2.00	10.95	ND	NA	9.26	6,941.74	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	03/31/21	2.00	10.95	ND	NA	9.73	6,941.27	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	04/26/21	2.00	10.95	ND	NA	9.93	6,941.07	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	05/20/21	2.00	10.95	ND	NA	9.82	6,941.18	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	06/01/21	2.00	10.95	ND	NA	9.70	6,941.30	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	06/23/21	2.00	10.95	ND	NA	DRY	NA	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	07/21/21	2.00	10.95	ND	NA	11.26	6,939.74	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	08/25/21	2.00	10.95	ND	NA	10.90	6,940.10	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	09/08/21	2.00	10.95	ND	NA	9.12	6,941.88	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	10/27/21	2.00	10.95	ND	NA	9.40	6,941.60	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	11/17/21	2.00	10.95	ND	NA	9.00	6,942.00	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	12/27/21	2.00	10.92	ND	NA	8.87	6,942.13	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	01/10/22	2.00	10.92	ND	NA	8.82	6,942.18	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	02/28/22	2.00	10.92	ND	NA	9.05	6,941.95	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	03/02/22	2.00	10.92	ND	NA	8.84	6,942.16	NA	4 - 14	Chinle/Alluvium Interface

**APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-16	04/27/22	2.00	10.92	ND	NA	10.24	6,940.76	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	05/05/22	2.00	10.92	ND	NA	9.06	6,941.94	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	06/01/22	2.00	10.94	ND	NA	8.25	6,942.75	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	07/06/22	2.00	10.95	ND	NA	8.29	6,942.71	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	08/08/22	2.00	10.96	ND	NA	8.46	6,942.54	NA	4 - 14	Chinle/Alluvium Interface
11/07/13	MKTF-16	09/01/22	2.00	10.97	ND	NA	8.22	6,942.78	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	10/03/22	2.00	10.98	ND	NA	8.28	6,942.72	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	11/02/22	2.00	10.99	ND	NA	8.26	6,942.74	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-16	12/06/22	2.00	11.00	ND	NA	10.74	6,940.26	NA	4 - 14	Chinle/Alluvium Interface
11/14/13	MKTF-17	03/12/15	2.00	24.11	ND	0.00	12.84	6,932.95	NA	14 - 24	Chinle/Alluvium Interface
	MKTF-17	06/08/15	2.00	24.11	ND	0.00	13.43	6,932.36	NA	14 - 24	Chinle/Alluvium Interface
	MKTF-17	08/18/15	2.00	24.11	ND	0.00	12.01	6,933.78	NA	14 - 24	Chinle/Alluvium Interface
	MKTF-17	11/03/15	2.00	24.11	ND	0.00	12.37	6,933.42	NA	14 - 24	Chinle/Alluvium Interface
	MKTF-17	02/25/16	2.00	24.11	ND	0.00	11.85	6,933.94	NA	14 - 24	Chinle/Alluvium Interface
	MKTF-17	06/10/16	2.00	24.11	ND	0.00	11.33	6,934.46	NA	14 - 24	Chinle/Alluvium Interface
	MKTF-17	09/12/16	2.00	24.11	ND	0.00	12.43	6,933.36	NA	14 - 24	Chinle/Alluvium Interface
	MKTF-17	11/03/16	2.00	24.11	ND	0.00	12.37	6,933.42	NA	14 - 24	Chinle/Alluvium Interface
	MKTF-17	03/08/17	2.00	24.11	ND	0.00	8.23	6,937.56	NA	14 - 24	Chinle/Alluvium Interface
	MKTF-17	06/14/17	2.00	24.11	ND	0.00	10.01	6,935.78	NA	14 - 24	Chinle/Alluvium Interface
	MKTF-17	09/26/17	2.00	24.11	ND	0.00	9.36	6,936.43	NA	14 - 24	Chinle/Alluvium Interface
	MKTF-17	11/30/17	2.00	24.65	ND	0.00	13.71	6,932.08	NA	14 - 24	Chinle/Alluvium Interface
	MKTF-17	02/15/18	2.00	24.68	ND	0.00	11.68	6,934.11	NA	14 - 24	Chinle/Alluvium Interface
	MKTF-17	04/26/18	2.00	24.55	ND	0.00	12.31	6,933.48	NA	14 - 24	Chinle/Alluvium Interface
	MKTF-17	08/15/18	2.00	24.68	ND	0.00	12.53	6,933.26	NA	14 - 24	Chinle/Alluvium Interface
	MKTF-17	11/27/18	2.00	24.65	ND	0.00	13.68	6,932.11	NA	14 - 24	Chinle/Alluvium Interface
	MKTF-17	03/25/19	2.00	24.11	ND	0.00	10.73	6,935.06	NA	14 - 24	Chinle/Alluvium Interface
	MKTF-17	05/09/19	2.00	24.11	ND	0.00	14.08	6,931.71	NA	14 - 24	Chinle/Alluvium Interface
	MKTF-17	08/19/19	2.00	24.68	ND	0.00	10.82	6,934.97	NA	14 - 24	Chinle/Alluvium Interface
	MKTF-17	10/28/19	2.00	24.65	ND	0.00	9.03	6,936.76	NA	14 - 24	Chinle/Alluvium Interface
	MKTF-17	10/29/19	2.00	24.65	ND	0.00	15.23	6,930.56	NA	14 - 24	Chinle/Alluvium Interface
	MKTF-17	11/12/19	2.00	24.65	ND	0.00	11.89	6,933.90	NA	14 - 24	Chinle/Alluvium Interface
	MKTF-17	11/19/19	2.00	24.65	12.35	1.60	13.98	6,931.81	6,933.09	14 - 24	Chinle/Alluvium Interface
	MKTF-17	11/21/19	2.00	24.65	12.42	2.88	15.33	6,930.46	6,932.76	14 - 24	Chinle/Alluvium Interface
	MKTF-17	12/02/19	2.00	24.65	13.17	4.88	18.08	6,927.71	6,931.61	14 - 24	Chinle/Alluvium Interface
	MKTF-17	02/03/20	2.00	24.11	11.44	5.41	16.88	6,928.91	6,933.24	14 - 24	Chinle/Alluvium Interface
	MKTF-17	06/29/20	2.00	24.11	10.19	5.31	15.53	6,930.26	6,934.51	14 - 24	Chinle/Alluvium Interface
	MKTF-17	09/14/20	2.00	24.67	10.00	5.37	15.40	6,930.39	6,934.69	14 - 24	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-17	11/10/20	2.00	24.67	11.39	0.20	11.62	6,934.17	6,934.33	14 - 24	Chinle/Alluvium Interface
	MKTF-17	12/04/20	2.00	24.66	11.28	0.19	11.50	6,934.29	6,934.44	14 - 24	Chinle/Alluvium Interface
	MKTF-17	01/28/21	2.00	24.65	11.88	0.02	11.93	6,933.86	6,933.88	14 - 24	Chinle/Alluvium Interface
	MKTF-17	02/28/21	2.00	24.70	11.88	0.02	11.93	6,933.86	6,933.88	14 - 24	Chinle/Alluvium Interface
	MKTF-17	03/31/21	2.00	24.70	12.06	0.03	12.12	6,933.67	6,933.69	14 - 24	Chinle/Alluvium Interface
	MKTF-17	04/26/21	2.00	24.70	14.97	0.02	15.02	6,930.77	6,930.79	14 - 24	Chinle/Alluvium Interface
	MKTF-17	05/20/21	2.00	24.70	15.03	0.03	15.09	6,930.70	6,930.72	14 - 24	Chinle/Alluvium Interface
	MKTF-17	06/01/21	2.00	24.70	15.10	0.05	15.18	6,930.61	6,930.65	14 - 24	Chinle/Alluvium Interface
	MKTF-17	07/21/21	2.00	24.70	12.16	0.03	12.22	6,933.57	6,933.59	14 - 24	Chinle/Alluvium Interface
08/14/21	MKTF-17R	08/30/21	2.00	24.70	ND	NA	12.34	6,938.27	NA	10 - 25	Chinle/Alluvium Interface
	MKTF-17R	09/17/21	2.00	24.70	ND	NA	12.46	6,938.15	NA	10 - 25	Chinle/Alluvium Interface
	MKTF-17R	10/27/21	2.00	24.70	ND	NA	12.32	6,938.29	NA	10 - 25	Chinle/Alluvium Interface
	MKTF-17R	11/02/21	2.00	24.70	ND	NA	12.32	6,938.29	NA	10 - 25	Chinle/Alluvium Interface
	MKTF-17R	12/03/21	2.00	20.50	ND	NA	12.80	6,937.81	NA	10 - 25	Chinle/Alluvium Interface
	MKTF-17R	01/10/22	2.00	20.50	ND	NA	12.72	6,937.89	NA	10 - 25	Chinle/Alluvium Interface
	MKTF-17R	02/28/22	2.00	20.50	ND	NA	12.71	6,937.90	NA	10 - 25	Chinle/Alluvium Interface
	MKTF-17R	03/01/22	2.00	20.50	ND	NA	12.76	6,937.85	NA	10 - 25	Chinle/Alluvium Interface
	MKTF-17R	04/27/22	2.00	20.50	ND	NA	13.82	6,936.79	NA	10 - 25	Chinle/Alluvium Interface
	MKTF-17R	05/04/22	2.00	20.50	12.98	0.47	13.86	6,936.75	6,937.13	10 - 25	Chinle/Alluvium Interface
	MKTF-17R	06/01/22	2.00	20.50	13.23	0.20	13.84	6,936.77	6,936.93	10 - 25	Chinle/Alluvium Interface
	MKTF-17R	07/06/22	2.00	20.50	13.24	0.23	13.88	6,936.73	6,936.91	10 - 25	Chinle/Alluvium Interface
	MKTF-17R	08/08/22	2.00	20.50	13.01	0.17	13.59	6,937.02	6,937.16	10 - 25	Chinle/Alluvium Interface
	MKTF-17R	09/01/22	2.00	20.50	12.93	0.20	13.54	6,937.07	6,937.23	10 - 25	Chinle/Alluvium Interface
	MKTF-17R	10/03/22	2.00	20.50	12.62	0.15	13.18	6,937.43	6,937.55	10 - 25	Chinle/Alluvium Interface
	MKTF-17R	11/02/22	2.00	20.50	12.62	0.17	13.20	6,937.41	6,937.55	10 - 25	Chinle/Alluvium Interface
	MKTF-17R	12/06/22	2.00	20.50	12.50	0.10	13.01	6,937.60	6,937.68	10 - 25	Chinle/Alluvium Interface
11/15/13	MKTF-18	03/17/15	2.00	25.38	ND	0.00	9.24	6,941.73	NA	17 - 27	Chinle/Alluvium Interface
	MKTF-18	06/08/15	2.00	25.38	ND	0.00	9.18	6,941.79	NA	17 - 27	Chinle/Alluvium Interface
	MKTF-18	08/18/15	2.00	25.38	ND	0.00	9.15	6,941.82	NA	17 - 27	Chinle/Alluvium Interface
	MKTF-18	11/03/15	2.00	25.38	ND	0.00	8.84	6,942.13	NA	17 - 27	Chinle/Alluvium Interface
	MKTF-18	02/26/16	2.00	25.38	ND	0.00	8.66	6,942.31	NA	17 - 27	Chinle/Alluvium Interface
	MKTF-18	06/10/16	2.00	25.38	ND	0.00	12.17	6,938.80	NA	17 - 27	Chinle/Alluvium Interface
	MKTF-18	09/12/16	2.00	25.38	ND	0.00	8.07	6,942.90	NA	17 - 27	Chinle/Alluvium Interface
	MKTF-18	11/03/16	2.00	25.38	ND	0.00	8.84	6,942.13	NA	17 - 27	Chinle/Alluvium Interface
	MKTF-18	03/01/17	2.00	25.38	ND	0.00	8.13	6,942.84	NA	17 - 27	Chinle/Alluvium Interface
	MKTF-18	06/14/17	2.00	25.38	ND	0.00	6.62	6,944.35	NA	17 - 27	Chinle/Alluvium Interface
	MKTF-18	09/27/17	2.00	25.38	6.35	0.02	6.69	6,944.28	6,944.30	17 - 27	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-18	11/30/17	2.00	25.38	6.29	0.01	6.62	6,944.35	6,944.36	17 - 27	Chinle/Alluvium Interface
	MKTF-18	02/15/18	2.00	26.80	ND	0.00	6.79	6,944.18	NA	17 - 27	Chinle/Alluvium Interface
	MKTF-18	04/26/18	2.00	26.70	ND	0.00	8.54	6,942.43	NA	17 - 27	Chinle/Alluvium Interface
	MKTF-18	08/16/18	2.00	27.45	ND	0.00	7.44	6,943.53	NA	17 - 27	Chinle/Alluvium Interface
	MKTF-18	11/27/18	2.00	25.38	ND	0.00	8.26	6,942.71	NA	17 - 27	Chinle/Alluvium Interface
	MKTF-18	03/25/19	2.00	25.38	ND	0.00	7.64	6,943.33	NA	17 - 27	Chinle/Alluvium Interface
	MKTF-18	05/16/19	2.00	25.38	ND	0.00	7.86	6,943.11	NA	17 - 27	Chinle/Alluvium Interface
	MKTF-18	08/19/19	2.00	27.45	7.71	0.01	8.04	6,942.93	6,942.94	17 - 27	Chinle/Alluvium Interface
	MKTF-18	10/28/19	2.00	25.38	ND	0.00	8.11	6,942.86	NA	17 - 27	Chinle/Alluvium Interface
	MKTF-18	10/29/19	2.00	25.38	ND	0.00	8.62	6,942.35	NA	17 - 27	Chinle/Alluvium Interface
	MKTF-18	11/12/19	2.00	25.38	ND	0.00	8.51	6,942.46	NA	17 - 27	Chinle/Alluvium Interface
	MKTF-18	02/05/20	2.00	25.38	ND	0.00	9.42	6,941.55	NA	17 - 27	Chinle/Alluvium Interface
	MKTF-18	06/30/20	2.00	25.38	ND	0.00	9.30	6,941.67	NA	17 - 27	Chinle/Alluvium Interface
	MKTF-18	09/18/20	2.00	21.73	8.49	0.01	8.82	6,942.15	6,942.16	17 - 27	Chinle/Alluvium Interface
	MKTF-18	11/10/20	2.00	21.73	ND	0.00	9.06	6,941.91	NA	17 - 27	Chinle/Alluvium Interface
	MKTF-18	12/04/20	2.00	25.50	ND	0.00	9.12	6,941.85	NA	17 - 27	Chinle/Alluvium Interface
	MKTF-18	01/28/21	2.00	25.50	ND	NA	9.60	6,941.37	NA	17 - 27	Chinle/Alluvium Interface
	MKTF-18	02/28/21	2.00	27.55	ND	NA	9.40	6,941.57	NA	17 - 27	Chinle/Alluvium Interface
11/15/13	MKTF-18	03/31/21	2.00	27.55	ND	NA	9.62	6,941.35	NA	17 - 27	Chinle/Alluvium Interface
	MKTF-18	04/26/21	2.00	27.55	ND	NA	9.55	6,941.42	NA	17 - 27	Chinle/Alluvium Interface
	MKTF-18	05/20/21	2.00	27.55	ND	NA	9.57	6,941.40	NA	17 - 27	Chinle/Alluvium Interface
	MKTF-18	06/01/21	2.00	27.55	ND	NA	9.53	6,941.44	NA	17 - 27	Chinle/Alluvium Interface
	MKTF-18	07/21/21	2.00	27.55	ND	NA	11.24	6,939.73	NA	17 - 27	Chinle/Alluvium Interface
08/14/21	MKTF-18R	08/30/21	2.00	25.55	ND	NA	10.00	6,945.29	NA	10 - 25	Chinle/Alluvium Interface
	MKTF-18R	09/17/21	2.00	25.55	ND	NA	10.35	6,944.94	NA	10 - 25	Chinle/Alluvium Interface
	MKTF-18R	10/27/21	2.00	25.55	ND	NA	10.32	6,944.97	NA	10 - 25	Chinle/Alluvium Interface
	MKTF-18R	11/17/21	2.00	25.55	ND	NA	10.41	6,944.88	NA	10 - 25	Chinle/Alluvium Interface
	MKTF-18R	12/03/21	2.00	25.50	ND	NA	10.62	6,944.67	NA	10 - 25	Chinle/Alluvium Interface
	MKTF-18R	01/10/22	2.00	25.50	ND	NA	10.75	6,944.54	NA	10 - 25	Chinle/Alluvium Interface
	MKTF-18R	02/28/22	2.00	25.50	ND	NA	10.75	6,944.54	NA	10 - 25	Chinle/Alluvium Interface
	MKTF-18R	03/01/22	2.00	25.50	ND	NA	10.59	6,944.70	NA	10 - 25	Chinle/Alluvium Interface
	MKTF-18R	04/27/22	2.00	25.50	ND	NA	11.20	6,944.09	NA	10 - 25	Chinle/Alluvium Interface
	MKTF-18R	05/05/22	2.00	25.50	ND	NA	11.33	6,943.96	NA	10 - 25	Chinle/Alluvium Interface
	MKTF-18R	06/01/22	2.00	25.47	ND	NA	11.55	6,943.74	NA	10 - 25	Chinle/Alluvium Interface
	MKTF-18R	07/06/22	2.00	25.46	ND	NA	11.19	6,944.10	NA	10 - 25	Chinle/Alluvium Interface
	MKTF-18R	08/08/22	2.00	25.45	ND	NA	11.76	6,943.53	NA	10 - 25	Chinle/Alluvium Interface
	MKTF-18R	09/01/22	2.00	25.43	ND	NA	11.27	6,944.02	NA	10 - 25	Chinle/Alluvium Interface

**APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-18R	10/03/22	2.00	25.42	ND	NA	11.34	6,943.95	NA	10 - 25	Chinle/Alluvium Interface
	MKTF-18R	11/02/22	2.00	25.40	ND	NA	11.32	6,943.97	NA	10 - 25	Chinle/Alluvium Interface
	MKTF-18R	12/05/22	2.00	25.39	ND	NA	11.12	6,944.17	NA	10 - 25	Chinle/Alluvium Interface
11/05/13	MKTF-19	03/12/15	2.00	17.47	ND	0.00	12.13	6,932.76	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-19	06/08/15	2.00	17.47	ND	0.00	12.69	6,932.20	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-19	08/18/15	2.00	17.47	ND	0.00	13.98	6,930.91	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-19	11/03/15	2.00	17.47	ND	0.00	13.17	6,931.72	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-19	02/25/16	2.00	17.47	ND	0.00	12.84	6,932.05	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-19	06/10/16	2.00	17.47	ND	0.00	12.12	6,932.77	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-19	09/12/16	2.00	17.47	ND	0.00	11.47	6,933.42	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-19	11/03/16	2.00	17.47	ND	0.00	13.06	6,931.83	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-19	03/08/17	2.00	17.47	ND	0.00	10.04	6,934.85	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-19	06/14/17	2.00	17.47	ND	0.00	10.80	6,934.09	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-19	09/26/17	2.00	17.47	ND	0.00	11.22	6,933.67	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-19	11/30/17	2.00	18.20	ND	0.00	11.92	6,932.97	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-19	02/15/18	2.00	18.45	ND	0.00	12.22	6,932.67	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-19	04/26/18	2.00	18.19	ND	0.00	12.27	6,932.62	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-19	08/15/18	2.00	19.30	ND	0.00	12.42	6,932.47	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-19	11/27/18	2.00	18.20	ND	0.00	12.59	6,932.30	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-19	03/25/19	2.00	17.47	ND	0.00	11.62	6,933.27	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-19	05/09/19	2.00	17.47	ND	0.00	11.53	6,933.36	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-19	08/19/19	2.00	19.30	ND	0.00	11.28	6,933.61	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-19	10/28/19	2.00	18.20	ND	0.00	11.13	6,933.76	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-19	10/29/19	2.00	18.20	ND	0.00	15.98	6,928.91	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-19	11/12/19	2.00	18.20	ND	0.00	11.07	6,933.82	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-19	11/19/19	2.00	18.20	ND	0.00	11.12	6,933.77	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-19	11/21/19	2.00	18.20	ND	0.00	11.27	6,933.62	NA	10 - 20	Chinle/Alluvium Interface
11/05/13	MKTF-19	12/02/19	2.00	18.20	11.63	0.87	12.72	6,932.17	6,932.87	10 - 20	Chinle/Alluvium Interface
	MKTF-19	02/03/20	2.00	17.47	11.35	1.05	12.62	6,932.27	6,933.11	10 - 20	Chinle/Alluvium Interface
	MKTF-19	06/29/20	2.00	17.47	12.08	1.21	13.51	6,931.38	6,932.35	10 - 20	Chinle/Alluvium Interface
	MKTF-19	09/14/20	2.00	19.24	11.95	0.02	12.19	6,932.70	6,932.72	10 - 20	Chinle/Alluvium Interface
	MKTF-19	11/10/20	2.00	19.24	12.22	1.33	13.77	6,931.12	6,932.18	10 - 20	Chinle/Alluvium Interface
	MKTF-19	12/04/20	2.00	19.38	12.18	1.24	13.64	6,931.25	6,932.24	10 - 20	Chinle/Alluvium Interface
	MKTF-19	01/28/21	2.00	19.38	12.22	1.24	13.68	6,931.21	6,932.20	10 - 20	Chinle/Alluvium Interface
	MKTF-19	02/28/21	2.00	19.44	12.45	1.14	13.81	6,931.08	6,931.99	10 - 20	Chinle/Alluvium Interface
	MKTF-19	03/31/21	2.00	19.44	12.60	1.23	14.05	6,930.84	6,931.82	10 - 20	Chinle/Alluvium Interface
	MKTF-19	04/26/21	2.00	19.44	12.54	1.53	14.29	6,930.60	6,931.82	10 - 20	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-19	05/20/21	2.00	19.44	12.28	1.42	13.92	6,930.97	6,932.11	10 - 20	Chinle/Alluvium Interface
	MKTF-19	06/01/21	2.00	19.44	12.55	1.22	13.99	6,930.90	6,931.88	10 - 20	Chinle/Alluvium Interface
	MKTF-19	07/21/21	2.00	19.44	12.52	0.78	13.52	6,931.37	6,931.99	10 - 20	Chinle/Alluvium Interface
	MKTF-19	08/25/21	2.00	19.44	13.10	1.22	14.54	6,930.35	6,931.33	10 - 20	Chinle/Alluvium Interface
	MKTF-19	09/08/21	2.00	19.44	13.05	1.06	14.33	6,930.56	6,931.41	10 - 20	Chinle/Alluvium Interface
	MKTF-19	10/27/21	2.00	19.44	13.08	1.27	14.57	6,930.32	6,931.34	10 - 20	Chinle/Alluvium Interface
	MKTF-19	11/17/21	2.00	19.44	13.09	1.13	14.44	6,930.45	6,931.35	10 - 20	Chinle/Alluvium Interface
	MKTF-19	12/03/21	2.00	19.44	12.98	1.05	14.25	6,930.64	6,931.48	10 - 20	Chinle/Alluvium Interface
	MKTF-19	01/10/22	2.00	19.44	13.11	0.06	13.39	6,931.50	6,931.55	10 - 20	Chinle/Alluvium Interface
	MKTF-19	02/28/22	2.00	19.44	13.10	1.22	14.54	6,930.35	6,931.33	10 - 20	Chinle/Alluvium Interface
	MKTF-19	03/02/22	2.00	19.46	13.00	1.10	14.32	6,930.57	6,931.45	10 - 20	Chinle/Alluvium Interface
	MKTF-19	04/27/22	2.00	19.46	13.74	1.09	15.05	6,929.84	6,930.71	10 - 20	Chinle/Alluvium Interface
	MKTF-19	05/05/22	2.00	19.46	13.31	1.02	14.55	6,930.34	6,931.16	10 - 20	Chinle/Alluvium Interface
	MKTF-19	06/01/22	2.00	19.45	12.96	0.92	14.10	6,930.79	6,931.53	10 - 20	Chinle/Alluvium Interface
	MKTF-19	07/06/22	2.00	19.45	12.41	0.59	13.22	6,931.67	6,932.14	10 - 20	Chinle/Alluvium Interface
	MKTF-19	08/08/22	2.00	19.44	12.05	1.17	13.44	6,931.45	6,932.39	10 - 20	Chinle/Alluvium Interface
	MKTF-19	09/01/22	2.00	19.44	13.03	0.97	14.22	6,930.67	6,931.45	10 - 20	Chinle/Alluvium Interface
	MKTF-19	10/03/22	2.00	19.43	13.71	2.35	16.28	6,928.61	6,930.49	10 - 20	Chinle/Alluvium Interface
	MKTF-19	11/02/22	2.00	19.43	13.70	2.34	16.26	6,928.63	6,930.50	10 - 20	Chinle/Alluvium Interface
	MKTF-19	12/06/22	2.00	19.42	15.12	0.32	15.66	6,929.23	6,929.49	10 - 20	Chinle/Alluvium Interface
02/10/14	MKTF-20	03/16/15	4.00	9.89	ND	0.00	7.37	6,944.52	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	06/08/15	4.00	9.89	ND	0.00	8.00	6,943.89	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	08/23/15	4.00	9.89	ND	0.00	7.90	6,943.99	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	11/09/15	4.00	9.89	ND	0.00	7.89	6,944.00	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	02/29/16	4.00	9.89	ND	0.00	7.92	6,943.97	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	06/08/16	4.00	9.89	ND	0.00	7.34	6,944.55	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	09/11/16	4.00	9.89	ND	0.00	7.76	6,944.13	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	11/09/16	4.00	9.89	ND	0.00	7.89	6,944.00	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	03/14/17	4.00	9.89	ND	0.00	5.81	6,946.08	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	06/12/17	4.00	9.89	ND	0.00	5.68	6,946.21	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	09/26/17	4.00	9.89	ND	0.00	6.34	6,945.55	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	11/28/17	4.00	9.58	ND	0.00	6.64	6,945.25	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	02/14/18	4.00	9.55	ND	0.00	7.56	6,944.33	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	04/25/18	4.00	9.50	ND	0.00	7.01	6,944.88	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	08/16/18	4.00	9.56	ND	0.00	7.31	6,944.58	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	11/29/18	4.00	9.58	ND	0.00	7.63	6,944.26	NA	2 - 10	Chinle/Alluvium Interface
02/10/14	MKTF-20	02/20/19	4.00	8.83	ND	0.00	6.40	6,945.49	NA	2 - 10	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-20	05/13/19	4.00	8.83	ND	0.00	7.25	6,944.64	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	08/20/19	4.00	8.83	ND	0.00	8.14	6,943.75	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	11/04/19	4.00	8.83	ND	0.00	7.79	6,944.10	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	02/05/20	4.00	8.83	ND	0.00	9.13	6,942.76	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	06/26/20	4.00	8.83	ND	0.00	8.78	6,943.11	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	09/15/20	4.00	9.62	8.54	0.81	9.46	6,942.43	6,943.08	2 - 10	Chinle/Alluvium Interface
	MKTF-20	11/10/20	4.00	9.62	8.10	0.80	9.01	6,942.88	6,943.52	2 - 10	Chinle/Alluvium Interface
	MKTF-20	12/08/20	4.00	9.60	8.76	0.19	9.06	6,942.83	6,942.98	2 - 10	Chinle/Alluvium Interface
	MKTF-20	01/28/21	4.00	9.60	8.99	0.61	9.71	6,942.18	6,942.67	2 - 10	Chinle/Alluvium Interface
	MKTF-20	02/28/21	4.00	9.61	ND	NA	DRY	NA	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	03/31/21	4.00	9.61	8.95	0.28	9.34	6,942.55	6,942.77	2 - 10	Chinle/Alluvium Interface
	MKTF-20	04/26/21	4.00	9.61	9.14	0.29	9.54	6,942.35	6,942.58	2 - 10	Chinle/Alluvium Interface
	MKTF-20	05/20/21	4.00	9.61	8.90	0.27	9.28	6,942.61	6,942.83	2 - 10	Chinle/Alluvium Interface
	MKTF-20	06/01/21	4.00	9.61	9.01	0.29	9.41	6,942.48	6,942.71	2 - 10	Chinle/Alluvium Interface
	MKTF-20	07/07/21	4.00	9.61	ND	NA	DRY	NA	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	08/02/21	4.00	9.61	ND	NA	9.04	6,942.85	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	09/08/21	4.00	9.61	ND	NA	DRY	NA	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	10/27/21	4.00	9.61	ND	NA	DRY	NA	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	11/02/21	4.00	9.61	ND	NA	9.02	6,942.87	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	12/03/21	4.00	9.60	ND	NA	9.53	6,942.36	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	01/10/22	4.00	9.60	ND	NA	9.62	6,942.27	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	02/28/22	4.00	9.60	ND	NA	9.60	6,942.29	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	03/02/22	4.00	9.60	ND	NA	DRY	NA	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	04/27/22	4.00	9.60	ND	NA	DRY	NA	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	05/05/22	4.00	9.60	ND	NA	DRY	NA	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	06/01/22	4.00	9.60	ND	NA	DRY	NA	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	07/06/22	4.00	9.60	ND	NA	8.41	6,943.48	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	08/08/22	4.00	9.60	ND	NA	8.90	6,942.99	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	09/01/22	4.00	9.60	ND	NA	8.90	6,942.99	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	10/03/22	4.00	9.60	ND	NA	DRY	NA	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	11/02/22	4.00	9.60	ND	NA	DRY	NA	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-20	12/06/22	4.00	9.60	ND	NA	DRY	NA	NA	2 - 10	Chinle/Alluvium Interface
02/10/14	MKTF-21	03/16/15	4.00	9.89	ND	0.00	7.73	6,944.95	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	06/10/15	4.00	9.89	ND	0.00	8.07	6,944.61	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	08/23/15	4.00	9.89	ND	0.00	7.73	6,944.95	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	11/09/15	4.00	9.89	ND	0.00	7.57	6,945.11	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	02/29/16	4.00	9.89	ND	0.00	7.35	6,945.33	NA	2 - 10	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-21	06/08/16	4.00	9.89	ND	0.00	7.09	6,945.59	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	09/11/16	4.00	9.89	ND	0.00	7.73	6,944.95	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	11/09/16	4.00	9.89	ND	0.00	7.57	6,945.11	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	03/14/17	4.00	9.89	ND	0.00	5.61	6,947.07	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	06/21/17	4.00	9.89	ND	0.00	5.20	6,947.48	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	09/26/17	4.00	9.89	ND	0.00	5.80	6,946.88	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	11/28/17	4.00	8.81	ND	0.00	6.36	6,946.32	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	02/14/18	4.00	8.80	ND	0.00	6.99	6,945.69	NA	2 - 10	Chinle/Alluvium Interface
02/10/14	MKTF-21	04/25/18	4.00	8.75	ND	0.00	6.43	6,946.25	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	08/16/18	4.00	8.80	ND	0.00	6.16	6,946.52	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	11/29/18	4.00	8.81	ND	0.00	7.63	6,945.05	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	02/20/19	4.00	8.81	ND	0.00	5.73	6,946.95	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	05/13/19	4.00	8.81	ND	0.00	6.81	6,945.87	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	08/20/19	4.00	8.81	ND	0.00	7.33	6,945.35	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	10/30/19	4.00	8.81	ND	0.00	8.43	6,944.25	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	02/05/20	4.00	8.83	ND	0.00	8.36	6,944.32	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	06/26/20	4.00	8.83	8.17	0.03	8.31	6,944.37	6944.39	2 - 10	Chinle/Alluvium Interface
	MKTF-21	09/15/20	4.00	8.84	7.08	0.01	7.20	6,945.48	6945.49	2 - 10	Chinle/Alluvium Interface
	MKTF-21	11/10/20	4.00	8.84	ND	0.00	6.52	6,946.16	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	12/04/20	4.00	8.80	8.04	0.01	8.16	6,944.52	6944.53	2 - 10	Chinle/Alluvium Interface
	MKTF-21	12/03/21	4.00	9.60	ND	0.00	9.53	6,942.36	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	02/28/21	4.00	8.87	ND	NA	7.92	6,944.76	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	03/31/21	4.00	8.87	ND	NA	7.84	6,944.84	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	04/26/21	4.00	8.87	ND	NA	7.39	6,945.29	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	05/20/21	4.00	8.87	ND	NA	7.51	6,945.17	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	06/01/21	4.00	8.87	ND	NA	7.09	6,945.59	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	07/07/21	4.00	8.87	ND	NA	8.07	6,944.61	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	08/02/21	4.00	8.87	ND	NA	8.75	6,943.93	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	09/08/21	4.00	8.87	ND	NA	8.91	6,943.77	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	10/27/21	4.00	8.87	ND	NA	8.36	6,944.32	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	11/17/21	4.00	8.87	ND	NA	8.53	6,944.15	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	12/03/21	4.00	8.87	ND	NA	8.96	6,943.72	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	01/10/22	4.00	8.87	ND	NA	8.93	6,943.75	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	02/28/22	4.00	8.87	ND	NA	8.96	6,943.72	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	03/02/22	4.00	8.87	ND	NA	DRY	NA	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	04/27/22	4.00	8.87	ND	NA	8.37	6,944.31	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	05/05/22	4.00	8.87	ND	NA	8.95	6,943.73	NA	2 - 10	Chinle/Alluvium Interface

**APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-21	06/01/22	4.00	8.87	ND	NA	8.96	6,943.72	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	07/06/22	4.00	8.87	ND	NA	8.43	6,944.25	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	08/08/22	4.00	8.87	ND	NA	8.74	6,943.94	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	09/01/22	4.00	8.87	ND	NA	9.01	6,943.67	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	10/03/22	4.00	8.87	ND	NA	DRY	NA	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	11/02/22	4.00	8.87	ND	NA	DRY	NA	NA	2 - 10	Chinle/Alluvium Interface
	MKTF-21	12/06/22	4.00	8.87	ND	NA	DRY	NA	NA	2 - 10	Chinle/Alluvium Interface
11/08/13	MKTF-22	03/12/15	2.00	35.25	ND	0.00	23.52	6,916.24	NA	22 - 32	Chinle/Alluvium Interface
	MKTF-22	06/09/15	2.00	35.25	ND	0.00	23.63	6,916.13	NA	22 - 32	Chinle/Alluvium Interface
	MKTF-22	08/20/15	2.00	36.25	ND	0.00	23.65	6,916.11	NA	22 - 32	Chinle/Alluvium Interface
	MKTF-22	11/09/15	2.00	35.25	ND	0.00	23.50	6,916.26	NA	22 - 32	Chinle/Alluvium Interface
	MKTF-22	02/25/16	2.00	35.25	ND	0.00	23.58	6,916.18	NA	22 - 32	Chinle/Alluvium Interface
	MKTF-22	06/10/16	2.00	35.25	ND	0.00	23.51	6,916.25	NA	22 - 32	Chinle/Alluvium Interface
	MKTF-22	09/10/16	2.00	36.25	ND	0.00	23.58	6,916.18	NA	22 - 32	Chinle/Alluvium Interface
	MKTF-22	11/09/16	2.00	35.25	ND	0.00	23.50	6,916.26	NA	22 - 32	Chinle/Alluvium Interface
	MKTF-22	03/08/17	2.00	35.25	ND	0.00	22.55	6,917.21	NA	22 - 32	Chinle/Alluvium Interface
	MKTF-22	06/07/17	2.00	35.25	ND	0.00	22.76	6,917.00	NA	22 - 32	Chinle/Alluvium Interface
11/08/13	MKTF-22	10/03/17	2.00	35.25	ND	0.00	22.64	6,917.12	NA	22 - 32	Chinle/Alluvium Interface
	MKTF-22	11/27/17	2.00	35.60	ND	0.00	22.63	6,917.13	NA	22 - 32	Chinle/Alluvium Interface
	MKTF-22	02/07/18	2.00	35.60	ND	0.00	22.95	6,916.81	NA	22 - 32	Chinle/Alluvium Interface
	MKTF-22	04/26/18	2.00	35.51	ND	0.00	22.85	6,916.91	NA	22 - 32	Chinle/Alluvium Interface
	MKTF-22	08/15/18	2.00	35.62	ND	0.00	23.25	6,916.51	NA	22 - 32	Chinle/Alluvium Interface
	MKTF-22	11/27/18	2.00	35.60	ND	0.00	23.02	6,916.74	NA	22 - 32	Chinle/Alluvium Interface
	MKTF-22	03/25/19	2.00	35.25	ND	0.00	21.88	6,917.88	NA	22 - 32	Chinle/Alluvium Interface
	MKTF-22	05/09/19	2.00	35.25	ND	0.00	22.09	6,917.67	NA	22 - 32	Chinle/Alluvium Interface
	MKTF-22	08/20/19	2.00	35.62	ND	0.00	22.40	6,917.36	NA	22 - 32	Chinle/Alluvium Interface
	MKTF-22	10/24/19	2.00	35.60	ND	0.00	22.85	6,916.91	NA	22 - 32	Chinle/Alluvium Interface
	MKTF-22	02/27/20	2.00	35.25	24.48	1.05	22.98	6,916.78	6917.62	22 - 32	Chinle/Alluvium Interface
	MKTF-22	06/29/20	2.00	35.25	24.57	3.14	25.16	6,914.60	6917.11	22 - 32	Chinle/Alluvium Interface
	MKTF-22	09/14/20	2.00	35.09	24.98	2.70	25.13	6,914.63	6916.79	22 - 32	Chinle/Alluvium Interface
	MKTF-22	11/10/20	2.00	35.09	24.94	2.35	24.74	6,915.02	6916.90	22 - 32	Chinle/Alluvium Interface
	MKTF-22	12/04/20	2.00	35.09	25.10	2.45	25.00	6,914.76	6916.72	22 - 32	Chinle/Alluvium Interface
	MKTF-22	01/28/21	2.00	35.09	25.28	2.69	25.42	6,914.34	6916.49	22 - 32	Chinle/Alluvium Interface
	MKTF-22	02/28/21	2.00	35.66	25.17	2.68	25.30	6,914.46	6916.60	22 - 32	Chinle/Alluvium Interface
	MKTF-22	03/31/21	2.00	35.66	25.77	1.48	24.70	6,915.06	6916.24	22 - 32	Chinle/Alluvium Interface
	MKTF-22	04/26/21	2.00	35.66	26.01	0.22	23.68	6,916.08	6916.26	22 - 32	Chinle/Alluvium Interface
	MKTF-22	05/20/21	2.00	35.66	25.15	1.83	24.43	6,915.33	6916.79	22 - 32	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-22	06/01/21	2.00	35.66	26.10	2.10	25.65	6,914.11	6915.79	22 - 32	Chinle/Alluvium Interface
	MKTF-22	07/21/21	2.00	35.66	25.27	2.88	25.60	6,914.16	6916.46	22 - 32	Chinle/Alluvium Interface
	MKTF-22	08/25/21	2.00	35.66	25.59	2.04	25.08	6,914.68	6916.31	22 - 32	Chinle/Alluvium Interface
	MKTF-22	09/09/21	2.00	35.66	25.64	1.97	25.06	6,914.70	6916.28	22 - 32	Chinle/Alluvium Interface
	MKTF-22	10/27/21	2.00	35.66	25.55	1.99	24.99	6,914.77	6916.36	22 - 32	Chinle/Alluvium Interface
	MKTF-22	11/02/21	2.00	35.66	25.53	2.05	25.03	6,914.73	6916.37	22 - 32	Chinle/Alluvium Interface
	MKTF-22	12/03/21	2.00	35.66	25.45	2.07	24.97	6,914.79	6916.45	22 - 32	Chinle/Alluvium Interface
	MKTF-22	01/10/22	2.00	35.66	25.24	2.13	24.82	6,914.94	6916.64	22 - 32	Chinle/Alluvium Interface
	MKTF-22	02/28/22	2.00	35.66	25.32	1.18	23.95	6,915.81	6916.75	22 - 32	Chinle/Alluvium Interface
	MKTF-22	03/02/22	2.00	35.68	25.41	2.08	24.94	6,914.82	6916.48	22 - 32	Chinle/Alluvium Interface
	MKTF-22	04/27/22	2.00	35.68	25.96	0.25	23.66	6,916.10	6916.30	22 - 32	Chinle/Alluvium Interface
	MKTF-22	05/04/22	2.00	35.68	25.86	0.97	24.28	6,915.48	6916.26	22 - 32	Chinle/Alluvium Interface
	MKTF-22	06/01/22	2.00	35.70	25.65	2.28	25.38	6,914.38	6916.20	22 - 32	Chinle/Alluvium Interface
	MKTF-22	07/06/22	2.00	35.71	25.47	1.95	24.87	6,914.89	6916.45	22 - 32	Chinle/Alluvium Interface
	MKTF-22	08/08/22	2.00	35.72	25.43	1.61	24.49	6,915.27	6916.56	22 - 32	Chinle/Alluvium Interface
	MKTF-22	09/01/22	2.00	35.73	25.51	2.28	25.24	6,914.52	6916.34	22 - 32	Chinle/Alluvium Interface
	MKTF-22	10/03/22	2.00	35.74	25.36	2.44	25.25	6,914.51	6916.46	22 - 32	Chinle/Alluvium Interface
	MKTF-22	11/02/22	2.00	35.75	25.35	2.40	25.20	6,914.56	6916.48	22 - 32	Chinle/Alluvium Interface
	MKTF-22	12/06/22	2.00	35.76	25.76	1.81	25.02	6,914.74	6916.19	22 - 32	Chinle/Alluvium Interface
11/04/13	MKTF-23	03/12/15	2.00	20.36	ND	0.00	12.04	6,915.19	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-23	06/09/15	2.00	20.36	ND	0.00	11.07	6,916.16	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-23	08/21/15	2.00	21.36	ND	0.00	12.01	6,915.22	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-23	11/09/15	2.00	20.36	ND	0.00	11.86	6,915.37	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-23	02/25/16	2.00	20.36	ND	0.00	11.92	6,915.31	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-23	06/10/16	2.00	20.36	ND	0.00	11.89	6,915.34	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-23	09/10/16	2.00	21.36	15.04	0.11	12.40	6,914.83	6,914.92	7 - 17	Chinle/Alluvium Interface
11/04/13	MKTF-23	11/09/16	2.00	20.36	ND	0.00	11.86	6,915.37	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-23	03/08/17	2.00	20.36	ND	0.00	11.45	6,915.78	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-23	06/07/17	2.00	20.36	14.20	0.70	12.15	6,915.08	6,915.64	7 - 17	Chinle/Alluvium Interface
	MKTF-23	10/03/17	2.00	20.36	14.19	0.06	11.50	6,915.73	6,915.78	7 - 17	Chinle/Alluvium Interface
	MKTF-23	11/27/17	2.00	20.36	13.93	0.01	11.19	6,916.04	6,916.05	7 - 17	Chinle/Alluvium Interface
	MKTF-23	02/07/18	2.00	20.36	14.11	0.09	11.45	6,915.78	6,915.85	7 - 17	Chinle/Alluvium Interface
	MKTF-23	04/26/18	2.00	20.27	14.07	0.02	11.34	6,915.89	6,915.91	7 - 17	Chinle/Alluvium Interface
	MKTF-23	08/15/18	2.00	20.38	15.48	0.10	12.83	6,914.40	6,914.48	7 - 17	Chinle/Alluvium Interface
	MKTF-23	11/27/18	2.00	20.36	14.20	0.04	11.49	6,915.74	6,915.77	7 - 17	Chinle/Alluvium Interface
	MKTF-23	03/25/19	2.00	20.36	ND	ND	9.80	6,917.43	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-23	05/09/19	2.00	20.36	12.95	0.07	10.27	6,916.96	6,917.02	7 - 17	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-23	08/20/19	2.00	20.38	13.47	0.03	10.75	6,916.48	6,916.50	7 - 17	Chinle/Alluvium Interface
	MKTF-23	10/28/19	2.00	20.36	ND	0.00	11.20	6,916.03	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-23	02/27/20	2.00	20.36	ND	0.00	10.67	6,916.56	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-23	06/29/20	2.00	20.36	ND	0.00	10.50	6,916.73	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-23	09/19/20	2.00	20.02	15.42	0.02	12.69	6,914.54	6,914.56	7 - 17	Chinle/Alluvium Interface
	MKTF-23	11/10/20	2.00	20.02	ND	0.00	11.48	6,915.75	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-23	12/04/20	2.00	20.39	14.15	0.01	11.41	6,915.82	6,915.83	7 - 17	Chinle/Alluvium Interface
	MKTF-23	12/28/20	2.00	20.76	ND	0.00	11.34	6,915.89	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-23	01/28/21	2.00	20.76	14.22	0.01	11.48	6,915.75	6,915.76	7 - 17	Chinle/Alluvium Interface
	MKTF-23	02/28/21	2.00	20.41	14.38	0.01	11.64	6,915.59	6,915.60	7 - 17	Chinle/Alluvium Interface
	MKTF-23	03/31/21	2.00	20.41	ND	NA	11.46	6,915.77	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-23	04/26/21	2.00	20.41	ND	NA	11.15	6,916.08	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-23	05/20/21	2.00	20.41	ND	NA	11.44	6,915.79	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-23	06/01/21	2.00	20.41	ND	NA	11.23	6,916.00	NA	7 - 17	Chinle/Alluvium Interface
	MKTF-23	07/21/21	2.00	20.41	14.75	0.01	12.01	6,915.22	6,915.23	7 - 17	Chinle/Alluvium Interface
	MKTF-23	08/25/21	2.00	20.41	14.38	0.02	11.65	6,915.58	6,915.60	7 - 17	Chinle/Alluvium Interface
	MKTF-23	09/08/21	2.00	20.41	14.44	0.03	11.72	6,915.51	6,915.53	7 - 17	Chinle/Alluvium Interface
	MKTF-23	10/27/21	2.00	20.41	14.22	0.02	11.49	6,915.74	6,915.76	7 - 17	Chinle/Alluvium Interface
	MKTF-23	11/17/21	2.00	20.41	14.21	0.04	11.50	6,915.73	6,915.76	7 - 17	Chinle/Alluvium Interface
	MKTF-23	12/03/21	2.00	20.41	14.29	0.05	11.59	6,915.64	6,915.68	7 - 17	Chinle/Alluvium Interface
	MKTF-23	01/10/22	2.00	20.41	14.44	0.10	11.79	6,915.44	6,915.52	7 - 17	Chinle/Alluvium Interface
	MKTF-23	02/28/22	2.00	20.41	14.40	0.12	11.77	6,915.46	6,915.56	7 - 17	Chinle/Alluvium Interface
	MKTF-23	03/01/22	2.00	20.40	14.27	0.05	11.57	6,915.66	6,915.70	7 - 17	Chinle/Alluvium Interface
	MKTF-23	04/27/22	2.00	20.40	14.31	0.04	11.60	6,915.63	6,915.66	7 - 17	Chinle/Alluvium Interface
	MKTF-23	05/05/22	2.00	20.40	14.29	0.04	11.58	6,915.65	6,915.68	7 - 17	Chinle/Alluvium Interface
	MKTF-23	06/01/22	2.00	20.43	14.30	0.05	11.60	6,915.63	6,915.67	7 - 17	Chinle/Alluvium Interface
	MKTF-23	07/06/22	2.00	20.44	14.98	0.04	12.27	6,914.96	6,914.99	7 - 17	Chinle/Alluvium Interface
	MKTF-23	08/08/22	2.00	20.46	15.10	0.05	12.40	6,914.83	6,914.87	7 - 17	Chinle/Alluvium Interface
	MKTF-23	09/01/22	2.00	20.47	14.15	0.05	11.45	6,915.78	6,915.82	7 - 17	Chinle/Alluvium Interface
	MKTF-23	10/03/22	2.00	20.49	14.19	0.07	11.51	6,915.72	6,915.78	7 - 17	Chinle/Alluvium Interface
	MKTF-23	11/02/22	2.00	20.50	14.20	0.08	11.53	6,915.70	6,915.76	7 - 17	Chinle/Alluvium Interface
	MKTF-23	12/06/22	2.00	20.52	14.31	0.09	11.65	6,915.58	6,915.65	7 - 17	Chinle/Alluvium Interface
10/29/13	MKTF-24	03/11/15	2.00	30.47	ND	0.00	18.89	6,907.18	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	06/10/15	2.00	30.47	ND	0.00	19.00	6,907.07	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	08/20/15	2.00	31.47	ND	0.00	18.88	6,907.19	NA	18 - 28	Chinle/Alluvium Interface
10/29/13	MKTF-24	11/04/15	2.00	30.47	ND	0.00	19.07	6,907.00	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	02/22/16	2.00	30.47	ND	0.00	18.69	6,907.38	NA	18 - 28	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-24	06/08/16	2.00	30.47	ND	0.00	18.58	6,907.49	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	09/07/16	2.00	31.47	ND	0.00	20.04	6,906.03	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	11/04/16	2.00	30.47	ND	0.00	19.07	6,907.00	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	03/06/17	2.00	30.47	ND	0.00	17.96	6,908.11	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	06/05/17	2.00	30.47	ND	0.00	18.42	6,907.65	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	10/03/17	2.00	30.47	ND	0.00	18.87	6,907.20	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	11/20/17	2.00	30.82	ND	0.00	18.88	6,907.19	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	02/06/18	2.00	30.83	ND	0.00	18.95	6,907.12	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	04/25/18	2.00	30.78	ND	0.00	19.11	6,906.96	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	08/15/18	2.00	30.85	ND	0.00	20.00	6,906.07	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	11/14/18	2.00	30.82	ND	0.00	20.65	6,905.42	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	02/25/19	2.00	30.47	ND	0.00	19.78	6,906.29	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	05/06/19	2.00	30.47	ND	0.00	18.88	6,907.19	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	08/23/19	2.00	30.85	ND	0.00	19.40	6,906.67	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	10/22/19	2.00	30.82	ND	0.00	20.56	6,905.51	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	02/24/20	2.00	30.47	ND	0.00	19.52	6,906.55	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	06/26/20	2.00	30.47	ND	0.00	20.15	6,905.92	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	09/15/20	2.00	31.13	ND	0.00	20.70	6,905.37	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	11/10/20	2.00	31.13	ND	0.00	20.67	6,905.40	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	12/04/20	2.00	31.18	ND	0.00	20.57	6,905.50	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	01/28/21	2.00	31.23	ND	NA	20.61	6,905.46	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	02/27/21	2.00	31.47	ND	NA	20.32	6,905.75	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	03/31/21	2.00	31.47	ND	NA	20.51	6,905.56	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	04/26/21	2.00	31.47	ND	NA	21.51	6,904.56	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	05/20/21	2.00	31.47	ND	NA	20.56	6,905.51	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	06/01/21	2.00	31.47	ND	NA	20.75	6,905.32	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	07/21/21	2.00	31.47	ND	NA	18.51	6,907.56	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	08/26/21	2.00	31.47	ND	NA	21.03	6,905.04	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	09/08/21	2.00	31.40	ND	NA	21.35	6,904.72	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	10/27/21	2.00	31.40	ND	NA	21.05	6,905.02	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	11/17/21	2.00	31.40	ND	NA	21.00	6,905.07	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	12/15/21	2.00	31.42	ND	NA	20.90	6,905.17	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	01/10/22	2.00	31.42	ND	NA	20.57	6,905.50	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	02/28/22	2.00	31.42	ND	NA	20.55	6,905.52	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	03/02/22	2.00	31.40	ND	NA	20.95	6,905.12	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	04/27/22	2.00	31.40	ND	NA	21.26	6,904.81	NA	18 - 28	Chinle/Alluvium Interface
	MKTF-24	05/05/22	2.00	31.40	ND	NA	20.90	6,905.17	NA	18 - 28	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-24	06/01/22	2.00	31.40	23.41	0.02	20.78	6,905.29	6905.31	18 - 28	Chinle/Alluvium Interface
	MKTF-24	07/06/22	2.00	31.40	23.02	0.09	20.46	6,905.61	6905.68	19 - 28	Chinle/Alluvium Interface
	MKTF-24	08/08/22	2.00	31.40	22.28	0.08	19.71	6,906.36	6906.42	20 - 28	Chinle/Alluvium Interface
	MKTF-24	09/01/22	2.00	31.40	23.53	0.02	20.90	6,905.17	6905.19	21 - 28	Chinle/Alluvium Interface
	MKTF-24	10/03/22	2.00	31.40	23.58	0.04	20.97	6,905.10	6905.13	22 - 28	Chinle/Alluvium Interface
	MKTF-24	11/02/22	2.00	31.40	23.60	0.03	20.98	6,905.09	6905.11	23 - 28	Chinle/Alluvium Interface
	MKTF-24	12/06/22	2.00	31.40	23.77	0.05	21.17	6,904.90	6904.94	24 - 28	Chinle/Alluvium Interface
10/30/13	MKTF-25	03/11/15	2.00	19.43	ND	0.00	8.01	6,905.34	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	06/10/15	2.00	19.43	ND	0.00	8.20	6,905.15	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	08/21/15	2.00	20.43	ND	0.00	7.76	6,905.59	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	11/05/15	2.00	19.43	ND	0.00	8.36	6,904.99	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	02/23/16	2.00	19.43	ND	0.00	7.99	6,905.36	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	06/09/16	2.00	19.43	ND	0.00	8.38	6,904.97	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	09/08/16	2.00	20.43	ND	0.00	9.33	6,904.02	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	11/05/16	2.00	19.43	ND	0.00	8.36	6,904.99	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	03/06/17	2.00	19.43	ND	0.00	6.68	6,906.67	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	06/05/17	2.00	19.43	ND	0.00	7.39	6,905.96	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	09/25/17	2.00	19.43	ND	0.00	8.20	6,905.15	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	11/21/17	2.00	19.80	ND	0.00	8.27	6,905.08	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	02/05/18	2.00	19.55	ND	0.00	8.36	6,904.99	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	04/25/18	2.00	19.50	ND	0.00	8.34	6,905.01	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	08/15/18	2.00	19.78	ND	0.00	9.52	6,903.83	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	11/14/18	2.00	19.80	ND	0.00	10.51	6,902.84	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	02/14/19	2.00	19.43	ND	0.00	10.29	6,903.06	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	05/06/19	2.00	19.43	ND	0.00	9.16	6,904.19	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	08/23/19	2.00	19.78	ND	0.00	10.28	6,903.07	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	08/27/19	2.00	20.78	ND	0.00	10.39	6,902.96	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	10/22/19	2.00	19.80	ND	0.00	10.88	6,902.47	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	02/26/20	2.00	19.43	ND	0.00	10.10	6,903.25	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	06/26/20	2.00	19.43	ND	0.00	10.49	6,902.86	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	09/15/20	2.00	20.09	ND	0.00	11.06	6,902.29	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	11/10/20	2.00	20.09	ND	0.00	10.91	6,902.44	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	12/04/20	2.00	20.38	ND	0.00	10.78	6,902.57	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	01/28/21	2.00	20.38	ND	NA	10.70	6,902.65	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	02/27/21	2.00	20.09	ND	NA	10.62	6,902.73	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	03/31/21	2.00	20.09	ND	NA	10.57	6,902.78	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	04/26/21	2.00	20.09	ND	NA	11.30	6,902.05	NA	6 - 16	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-25	05/20/21	2.00	20.09	ND	NA	10.48	6,902.87	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	06/01/21	2.00	20.09	ND	NA	10.72	6,902.63	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	07/21/21	2.00	20.09	ND	NA	10.04	6,903.31	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	08/26/21	2.00	20.09	ND	NA	11.30	6,902.05	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	09/08/21	2.00	20.09	ND	NA	11.61	6,901.74	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	10/27/21	2.00	20.09	ND	NA	11.07	6,902.28	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	11/17/21	2.00	20.09	ND	NA	11.04	6,902.31	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	12/16/21	2.00	20.07	ND	NA	10.88	6,902.47	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	01/10/22	2.00	20.07	ND	NA	10.71	6,902.64	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	02/28/22	2.00	20.07	ND	NA	10.66	6,902.69	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	03/02/22	2.00	20.08	ND	NA	10.86	6,902.49	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	04/27/22	2.00	20.08	ND	NA	11.30	6,902.05	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	05/05/22	2.00	20.08	ND	NA	11.17	6,902.18	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-25	06/01/22	2.00	20.08	13.63	0.02	10.81	6,902.54	6902.56	6 - 16	Chinle/Alluvium Interface
	MKTF-25	07/06/22	2.00	20.08	13.46	0.04	10.66	6,902.69	6902.72	6 - 16	Chinle/Alluvium Interface
	MKTF-25	08/08/22	2.00	20.08	13.60	0.03	10.79	6,902.56	6902.58	6 - 16	Chinle/Alluvium Interface
10/30/13	MKTF-25	09/01/22	2.00	20.08	13.57	0.02	10.75	6,902.60	6902.62	6 - 16	Chinle/Alluvium Interface
	MKTF-25	10/03/22	2.00	20.08	13.63	0.03	10.82	6,902.53	6902.55	6 - 16	Chinle/Alluvium Interface
	MKTF-25	11/02/22	2.00	20.08	13.63	0.03	10.82	6,902.53	6902.55	6 - 16	Chinle/Alluvium Interface
	MKTF-25	12/06/22	2.00	20.08	13.64	0.04	10.84	6,902.51	6902.54	6 - 16	Chinle/Alluvium Interface
10/30/13	MKTF-26	03/11/15	2.00	17.15	ND	0.00	5.24	6,907.31	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-26	06/10/15	2.00	17.15	ND	0.00	5.81	6,906.74	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-26	08/20/15	2.00	18.15	ND	0.00	5.78	6,906.77	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-26	11/04/15	2.00	17.15	ND	0.00	5.64	6,906.91	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-26	02/22/16	2.00	17.15	ND	0.00	5.41	6,907.14	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-26	06/09/16	2.00	17.15	ND	0.00	6.84	6,905.71	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-26	09/07/16	2.00	18.15	9.44	1.37	8.05	6,904.50	6,905.60	4 - 14	Chinle/Alluvium Interface
	MKTF-26	11/04/16	2.00	17.15	ND	0.00	5.64	6,906.91	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-26	03/06/17	2.00	17.15	7.44	0.75	5.43	6,907.12	6,907.72	4 - 14	Chinle/Alluvium Interface
	MKTF-26	06/05/17	2.00	17.15	8.03	0.96	6.23	6,906.32	6,907.09	4 - 14	Chinle/Alluvium Interface
	MKTF-26	10/03/17	2.00	17.15	7.77	0.83	5.84	6,906.71	6,907.37	4 - 14	Chinle/Alluvium Interface
	MKTF-26	11/20/17	2.00	17.15	8.09	0.84	6.17	6,906.38	6,907.05	4 - 14	Chinle/Alluvium Interface
	MKTF-26	02/07/18	2.00	17.15	8.53	0.83	6.60	6,905.95	6,906.61	4 - 14	Chinle/Alluvium Interface
	MKTF-26	04/25/18	2.00	17.05	8.56	0.81	6.61	6,905.94	6,906.59	4 - 14	Chinle/Alluvium Interface
	MKTF-26	08/15/18	2.00	17.17	8.73	0.84	6.81	6,905.74	6,906.41	4 - 14	Chinle/Alluvium Interface
	MKTF-26	11/14/18	2.00	17.15	8.45	1.45	7.14	6,905.41	6,906.57	4 - 14	Chinle/Alluvium Interface
	MKTF-26	02/14/19	2.00	17.15	8.38	0.77	6.39	6,906.16	6,906.78	4 - 14	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-26	05/06/19	2.00	17.15	7.80	0.85	5.89	6,906.66	6,907.34	4 - 14	Chinle/Alluvium Interface
	MKTF-26	08/23/19	2.00	17.17	8.22	0.83	6.29	6,906.26	6,906.92	4 - 14	Chinle/Alluvium Interface
	MKTF-26	10/22/19	2.00	17.15	8.63	0.73	6.60	6,905.95	6,906.53	4 - 14	Chinle/Alluvium Interface
	MKTF-26	02/26/20	2.00	17.15	8.35	0.76	6.35	6,906.20	6906.81	4 - 14	Chinle/Alluvium Interface
	MKTF-26	06/26/20	2.00	17.15	8.61	0.89	6.74	6,905.81	6906.52	4 - 14	Chinle/Alluvium Interface
	MKTF-26	09/15/20	2.00	16.85	8.81	0.75	6.80	6,905.75	6906.35	4 - 14	Chinle/Alluvium Interface
	MKTF-26	11/10/20	2.00	16.85	8.65	0.71	6.60	6,905.95	6906.52	4 - 14	Chinle/Alluvium Interface
	MKTF-26	12/04/20	2.00	17.16	7.67	1.72	6.63	6,905.92	6907.30	4 - 14	Chinle/Alluvium Interface
	MKTF-26	01/28/21	2.00	17.16	8.93	0.27	6.44	6,906.11	6906.33	4 - 14	Chinle/Alluvium Interface
	MKTF-26	02/27/21	2.00	16.90	8.88	0.17	6.29	6,906.26	6906.40	4 - 14	Chinle/Alluvium Interface
	MKTF-26	03/31/21	2.00	16.90	9.00	0.11	6.35	6,906.20	6906.29	4 - 14	Chinle/Alluvium Interface
	MKTF-26	04/26/21	2.00	16.90	8.81	0.11	6.16	6,906.39	6906.48	4 - 14	Chinle/Alluvium Interface
	MKTF-26	05/20/21	2.00	16.90	9.02	0.12	6.38	6,906.17	6906.27	4 - 14	Chinle/Alluvium Interface
	MKTF-26	06/01/21	2.00	16.90	9.10	0.09	6.43	6,906.12	6906.19	4 - 14	Chinle/Alluvium Interface
	MKTF-26	07/07/21	2.00	16.90	ND	NA	6.58	6,905.97	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-26	08/26/21	2.00	16.90	8.98	0.02	6.24	6,906.31	6906.33	4 - 14	Chinle/Alluvium Interface
	MKTF-26	09/09/21	2.00	16.90	9.02	0.02	6.28	6,906.27	6906.29	4 - 14	Chinle/Alluvium Interface
	MKTF-26	10/27/21	2.00	16.90	8.90	0.02	6.16	6,906.39	6906.41	4 - 14	Chinle/Alluvium Interface
	MKTF-26	11/02/21	2.00	16.90	ND	NA	6.12	6,906.43	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-26	12/09/21	2.00	16.90	8.77	0.19	6.20	6,906.35	6906.50	4 - 14	Chinle/Alluvium Interface
	MKTF-26	01/10/22	2.00	16.90	ND	NA	6.06	6,906.49	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-26	02/28/22	2.00	16.90	ND	NA	6.05	6,906.50	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-26	03/02/22	2.00	16.90	8.79	0.18	6.21	6,906.34	6906.48	4 - 14	Chinle/Alluvium Interface
	MKTF-26	04/27/22	2.00	16.90	8.85	0.10	6.19	6,906.36	6906.44	4 - 14	Chinle/Alluvium Interface
	MKTF-26	05/05/22	2.00	16.90	8.84	0.12	6.20	6,906.35	6906.45	4 - 14	Chinle/Alluvium Interface
10/30/13	MKTF-26	06/01/22	2.00	16.90	8.96	0.02	6.22	6,906.33	6906.35	4 - 14	Chinle/Alluvium Interface
	MKTF-26	07/06/22	2.00	16.90	8.65	0.03	5.92	6,906.63	6906.65	4 - 14	Chinle/Alluvium Interface
	MKTF-26	08/08/22	2.00	16.90	8.68	0.02	5.94	6,906.61	6906.63	4 - 14	Chinle/Alluvium Interface
	MKTF-26	09/01/22	2.00	16.90	8.96	0.04	6.24	6,906.31	6906.34	4 - 14	Chinle/Alluvium Interface
	MKTF-26	10/03/22	2.00	16.90	8.98	0.06	6.28	6,906.27	6906.32	4 - 14	Chinle/Alluvium Interface
	MKTF-26	11/02/22	2.00	16.90	9.00	0.07	6.31	6,906.24	6906.30	4 - 14	Chinle/Alluvium Interface
	MKTF-26	12/06/22	2.00	16.90	9.03	0.07	6.34	6,906.21	6906.27	4 - 14	Chinle/Alluvium Interface
10/30/13	MKTF-27	03/11/15	2.00	14.72	ND	0.00	4.56	6,910.80	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	06/09/15	2.00	14.72	ND	0.00	4.90	6,910.46	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	08/20/15	2.00	15.72	ND	0.00	5.31	6,910.05	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	11/04/15	2.00	14.72	ND	0.00	4.99	6,910.37	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	02/22/16	2.00	14.72	ND	0.00	4.66	6,910.70	NA	1 - 12	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-27	06/08/16	2.00	14.72	ND	0.00	4.97	6,910.39	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	09/07/16	2.00	15.72	ND	0.00	5.52	6,909.84	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	11/04/16	2.00	14.72	ND	0.00	4.99	6,910.37	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	03/06/17	2.00	14.72	ND	0.00	3.48	6,911.88	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	06/05/17	2.00	14.72	ND	0.00	3.78	6,911.58	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	10/03/17	2.00	14.72	ND	0.00	3.36	6,912.00	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	11/20/17	2.00	14.72	ND	0.00	3.44	6,911.92	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	02/06/18	2.00	14.72	ND	0.00	3.71	6,911.65	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	04/25/18	2.00	14.62	ND	0.00	3.80	6,911.56	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	08/15/18	2.00	14.72	ND	0.00	3.61	6,911.75	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	11/14/18	2.00	14.72	ND	0.00	3.77	6,911.59	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	02/25/19	2.00	14.72	ND	0.00	1.21	6,914.15	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	05/06/19	2.00	14.72	ND	0.00	3.19	6,912.17	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	08/21/19	2.00	14.72	ND	0.00	3.12	6,912.24	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	10/30/19	2.00	14.72	ND	0.00	3.60	6,911.76	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	02/24/20	2.00	14.72	ND	0.00	1.07	6,914.29	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	06/30/20	2.00	14.72	ND	0.00	4.16	6,911.20	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	09/15/20	2.00	14.72	ND	0.00	3.67	6,911.69	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	11/10/20	2.00	14.72	ND	0.00	4.18	6,911.18	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	12/04/20	2.00	14.74	ND	0.00	3.93	6,911.43	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	01/28/21	2.00	14.74	ND	NA	4.08	6,911.28	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	02/28/21	2.00	14.76	ND	NA	2.97	6,912.39	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	03/31/21	2.00	14.76	ND	NA	3.94	6,911.42	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	04/26/21	2.00	14.76	ND	NA	3.64	6,911.72	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	05/20/21	2.00	14.76	ND	NA	3.98	6,911.38	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	06/01/21	2.00	14.76	ND	NA	4.15	6,911.21	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	07/21/21	2.00	14.76	ND	NA	3.21	6,912.15	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	08/26/21	2.00	14.76	ND	NA	4.04	6,911.32	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	09/09/21	2.00	14.76	ND	NA	4.46	6,910.90	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	10/27/21	2.00	14.76	ND	NA	3.98	6,911.38	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	11/17/21	2.00	14.76	ND	NA	4.01	6,911.35	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	12/13/21	2.00	14.76	ND	NA	4.07	6,911.29	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	01/10/22	2.00	14.76	ND	NA	4.33	6,911.03	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	02/28/22	2.00	14.76	ND	NA	4.31	6,911.05	NA	1 - 12	Chinle/Alluvium Interface
10/30/13	MKTF-27	03/01/22	2.00	14.75	ND	NA	4.04	6,911.32	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	04/27/22	2.00	14.75	ND	NA	3.86	6,911.50	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	05/05/22	2.00	14.75	ND	NA	4.07	6,911.29	NA	1 - 12	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-27	06/01/22	2.00	14.74	ND	NA	4.58	6,910.78	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	07/06/22	2.00	14.73	ND	NA	4.55	6,910.81	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	08/08/22	2.00	14.72	ND	NA	4.42	6,910.94	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	09/01/22	2.00	14.71	ND	NA	4.81	6,910.55	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	10/03/22	2.00	14.70	ND	NA	4.90	6,910.46	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	11/02/22	2.00	14.69	ND	NA	6.48	6,908.88	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-27	12/08/22	2.00	14.68	ND	NA	4.27	6,911.09	NA	1 - 12	Chinle/Alluvium Interface
	MKTF-28	08/20/15	2.00	17.16	ND	0.00	3.57	6,915.10	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	11/04/15	2.00	16.16	ND	0.00	2.89	6,915.78	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	02/23/16	2.00	16.16	ND	0.00	2.47	6,916.20	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	06/08/16	2.00	16.16	ND	0.00	2.43	6,916.24	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	09/08/16	2.00	17.16	ND	0.00	3.55	6,915.12	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	11/04/16	2.00	16.16	ND	0.00	2.89	6,915.78	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	03/06/17	2.00	16.16	ND	0.00	1.83	6,916.84	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	06/05/17	2.00	16.16	ND	0.00	5.05	6,913.62	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	10/03/17	2.00	16.16	ND	0.00	1.43	6,917.24	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	11/20/17	2.00	16.13	ND	0.00	5.05	6,913.62	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	02/06/18	2.00	16.13	ND	0.00	3.88	6,914.79	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	04/25/18	2.00	16.04	ND	0.00	4.13	6,914.54	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	08/15/18	2.00	16.15	ND	0.00	1.60	6,917.07	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	11/14/18	2.00	16.13	ND	0.00	3.27	6,915.40	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	02/25/19	2.00	16.16	ND	0.00	2.06	6,916.61	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	05/06/19	2.00	16.16	ND	0.00	6.42	6,912.25	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	08/21/19	2.00	16.15	ND	0.00	0.97	6,917.70	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	10/22/19	2.00	16.13	ND	0.00	3.53	6,915.14	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	02/24/20	2.00	16.16	ND	0.00	1.68	6,916.99	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	06/30/20	2.00	16.16	ND	0.00	1.99	6,916.68	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	09/15/20	2.00	16.17	ND	0.00	1.74	6,916.93	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	11/10/20	2.00	16.17	ND	0.00	5.96	6,912.71	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	12/04/20	2.00	16.16	ND	0.00	4.28	6,914.39	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	01/28/21	2.00	16.16	ND	NA	6.89	6,911.78	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	02/28/21	2.00	16.16	ND	NA	5.33	6,913.34	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	03/31/21	2.00	16.16	ND	NA	5.66	6,913.01	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	04/26/21	2.00	16.16	ND	NA	5.62	6,913.05	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	05/20/21	2.00	16.16	ND	NA	5.09	6,913.58	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	06/01/21	2.00	16.16	ND	NA	5.02	6,913.65	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	07/21/21	2.00	16.16	ND	NA	5.70	6,912.97	NA	3 - 13	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-28	08/26/21	2.00	16.16	ND	NA	6.15	6,912.52	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	09/09/21	2.00	16.16	ND	NA	5.55	6,913.12	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	10/27/21	2.00	16.16	ND	NA	8.05	6,910.62	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	11/17/21	2.00	16.16	ND	NA	5.64	6,913.03	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	12/13/21	2.00	16.16	ND	NA	4.72	6,913.95	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	01/10/22	2.00	16.16	ND	NA	4.65	6,914.02	NA	3 - 13	Chinle/Alluvium Interface
04/02/14	MKTF-28	02/28/22	2.00	16.16	ND	NA	4.67	6,914.00	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	03/01/22	2.00	16.17	ND	NA	4.68	6,913.99	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	04/27/22	2.00	16.17	ND	NA	4.51	6,914.16	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	05/05/22	2.00	16.17	ND	NA	4.89	6,913.78	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	06/01/22	2.00	16.16	ND	NA	6.01	6,912.66	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	07/06/22	2.00	16.15	ND	NA	5.98	6,912.69	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	08/08/22	2.00	16.14	ND	NA	5.90	6,912.77	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	09/01/22	2.00	16.13	ND	NA	6.05	6,912.62	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	10/03/22	2.00	16.12	ND	NA	6.18	6,912.49	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	11/03/22	2.00	16.11	ND	NA	6.13	6,912.54	NA	3 - 13	Chinle/Alluvium Interface
	MKTF-28	12/08/22	2.00	16.10	ND	NA	7.40	6,911.27	NA	3 - 13	Chinle/Alluvium Interface
04/02/14	MKTF-29	03/11/15	2.00	22.84	ND	0.00	-0.75	6,899.58	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	06/10/15	2.00	22.84	ND	0.00	-0.10	6,898.93	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	08/20/15	2.00	23.84	ND	0.00	-0.49	6,899.32	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	11/04/15	2.00	22.84	ND	0.00	-0.39	6,899.22	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	02/23/16	2.00	22.84	ND	0.00	-0.87	6,899.70	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	06/09/16	2.00	22.84	ND	0.00	-0.10	6,898.93	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	09/07/16	2.00	23.84	ND	0.00	1.73	6,897.10	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	11/04/16	2.00	22.84	ND	0.00	-0.39	6,899.22	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	03/06/17	2.00	22.84	ND	0.00	-1.80	6,900.63	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	06/05/17	2.00	22.84	ND	0.00	-1.84	6,900.67	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	10/03/17	2.00	22.84	ND	0.00	-1.20	6,900.03	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	11/20/17	2.00	22.80	ND	0.00	-0.88	6,899.71	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	02/06/18	2.00	22.81	ND	0.00	-0.86	6,899.69	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	04/25/18	2.00	22.77	ND	0.00	-0.67	6,899.50	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	08/15/18	2.00	22.82	ND	0.00	1.13	6,897.70	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	11/14/18	2.00	22.80	ND	0.00	1.30	6,897.53	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	02/25/19	2.00	22.84	ND	0.00	0.94	6,897.89	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	05/06/19	2.00	22.84	ND	0.00	0.93	6,897.90	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	08/23/19	2.00	22.82	ND	0.00	3.04	6,895.79	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	10/22/19	2.00	22.80	ND	0.00	3.53	6,895.30	NA	10 - 20	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-29	02/24/20	2.00	22.84	ND	0.00	1.70	6,897.13	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	06/26/20	2.00	22.84	ND	0.00	3.63	6,895.20	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	09/15/20	2.00	22.78	ND	0.00	5.22	6,893.61	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	11/10/20	2.00	22.78	ND	0.00	4.19	6,894.64	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	12/04/20	2.00	22.85	ND	0.00	3.61	6,895.22	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	01/28/21	2.00	22.85	ND	NA	2.82	6,896.01	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	02/28/21	2.00	22.83	ND	NA	2.52	6,896.31	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	03/31/21	2.00	22.83	ND	NA	2.41	6,896.42	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	04/26/21	2.00	22.83	ND	NA	2.13	6,896.70	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	05/20/21	2.00	22.83	ND	NA	2.42	6,896.41	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	06/01/21	2.00	22.83	ND	NA	1.33	6,897.50	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	07/21/21	2.00	22.83	ND	NA	5.11	6,893.72	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	08/26/21	2.00	22.83	ND	NA	5.52	6,893.31	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	09/09/21	2.00	22.83	ND	NA	5.96	6,892.87	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	10/27/21	2.00	22.83	ND	NA	4.53	6,894.30	NA	10 - 20	Chinle/Alluvium Interface
04/02/14	MKTF-29	11/17/21	2.00	22.83	ND	NA	4.29	6,894.54	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	12/13/21	2.00	22.83	ND	NA	3.66	6,895.17	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	01/10/22	2.00	22.83	ND	NA	3.85	6,894.98	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	02/28/22	2.00	22.83	ND	NA	3.86	6,894.97	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	03/01/22	2.00	22.84	ND	NA	3.63	6,895.20	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	04/27/22	2.00	22.84	ND	NA	3.76	6,895.07	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	05/05/22	2.00	22.84	ND	NA	4.08	6,894.75	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	06/01/22	2.00	22.85	ND	NA	4.28	6,894.55	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	07/06/22	2.00	22.86	ND	NA	4.39	6,894.44	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	08/08/22	2.00	22.87	ND	NA	4.59	6,894.24	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	09/01/22	2.00	22.88	ND	NA	6.01	6,892.82	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	10/03/22	2.00	22.89	ND	NA	6.04	6,892.79	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	11/03/22	2.00	22.90	ND	NA	6.22	6,892.61	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-29	12/09/22	2.00	22.91	ND	NA	3.46	6,895.37	NA	10 - 20	Chinle/Alluvium Interface
04/01/14	MKTF-30	03/11/15	2.00	23.20	ND	0.00	12.04	6,886.06	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	06/10/15	2.00	23.20	ND	0.00	11.87	6,886.23	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	08/20/15	2.00	24.20	ND	0.00	12.59	6,885.51	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	11/04/15	2.00	23.20	ND	0.00	12.04	6,886.06	NA	10 - 20	Chinle/Alluvium Interface
04/01/14	MKTF-30	02/23/16	2.00	23.20	ND	0.00	11.70	6,886.40	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	06/09/16	2.00	23.20	ND	0.00	11.31	6,886.79	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	09/07/16	2.00	24.20	ND	0.00	12.78	6,885.32	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	11/04/16	2.00	23.20	ND	0.00	12.04	6,886.06	NA	10 - 20	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-30	03/06/17	2.00	23.20	ND	0.00	11.43	6,886.67	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	06/05/17	2.00	23.20	ND	0.00	11.17	6,886.93	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	10/03/17	2.00	23.20	ND	0.00	12.33	6,885.77	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	11/20/17	2.00	23.19	ND	0.00	12.21	6,885.89	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	02/06/18	2.00	23.20	ND	0.00	11.50	6,886.60	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	04/25/18	2.00	23.10	ND	0.00	11.09	6,887.01	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	08/15/18	2.00	23.20	ND	0.00	11.95	6,886.15	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	11/14/18	2.00	23.19	ND	0.00	12.45	6,885.65	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	03/28/19	2.00	23.20	ND	0.00	10.98	6,887.12	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	05/06/19	2.00	23.20	ND	0.00	11.11	6,886.99	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	08/23/19	2.00	23.20	ND	0.00	12.18	6,885.92	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	10/22/19	2.00	23.19	ND	0.00	13.12	6,884.98	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	02/26/20	2.00	23.20	ND	0.00	12.61	6,885.49	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	06/26/20	2.00	23.20	ND	0.00	13.49	6,884.61	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	09/15/20	2.00	23.22	ND	0.00	13.96	6,884.14	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	11/10/20	2.00	23.22	ND	0.00	14.17	6,883.93	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	12/04/20	2.00	23.22	ND	0.00	14.06	6,884.04	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	01/28/21	2.00	23.22	ND	NA	14.09	6,884.01	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	02/28/21	2.00	22.95	ND	NA	13.63	6,884.47	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	03/31/21	2.00	22.95	ND	NA	13.70	6,884.40	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	04/26/21	2.00	22.95	ND	NA	13.50	6,884.60	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	05/20/21	2.00	22.95	ND	NA	13.69	6,884.41	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	06/01/21	2.00	22.95	ND	NA	13.62	6,884.48	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	07/21/21	2.00	22.95	ND	NA	14.33	6,883.77	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	08/26/21	2.00	22.95	ND	NA	14.62	6,883.48	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	09/09/21	2.00	22.95	ND	NA	14.69	6,883.41	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	10/27/21	2.00	22.95	ND	NA	14.60	6,883.50	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	11/17/21	2.00	22.95	ND	NA	14.62	6,883.48	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	12/13/21	2.00	22.95	ND	NA	14.51	6,883.59	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	01/10/22	2.00	22.95	ND	NA	14.43	6,883.67	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	02/28/22	2.00	22.95	ND	NA	14.47	6,883.63	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	03/01/22	2.00	22.95	ND	NA	15.00	6,883.10	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	04/27/22	2.00	22.95	ND	NA	15.40	6,882.70	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	05/05/22	2.00	22.95	ND	NA	15.30	6,882.80	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	06/01/22	2.00	22.95	ND	NA	14.93	6,883.17	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	07/06/22	2.00	22.95	ND	NA	14.27	6,883.83	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	08/08/22	2.00	22.95	ND	NA	14.40	6,883.70	NA	10 - 20	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-30	09/01/22	2.00	22.95	ND	NA	14.15	6,883.95	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	10/03/22	2.00	22.95	ND	NA	14.12	6,883.98	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	11/03/22	2.00	22.95	ND	NA	14.10	6,884.00	NA	10 - 20	Chinle/Alluvium Interface
	MKTF-30	12/29/22	2.00	22.95	ND	NA	13.72	6,884.38	NA	10 - 20	Chinle/Alluvium Interface
04/01/14	MKTF-31	03/11/15	2.00	22.81	ND	0.00	5.37	6,898.89	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	06/10/15	2.00	22.81	ND	0.00	5.14	6,899.12	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	08/21/15	2.00	23.81	ND	0.00	5.48	6,898.78	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	11/04/15	2.00	22.81	ND	0.00	5.53	6,898.73	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	02/23/16	2.00	22.81	ND	0.00	5.34	6,898.92	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	06/09/16	2.00	22.81	ND	0.00	5.14	6,899.12	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	09/08/16	2.00	23.81	ND	0.00	5.87	6,898.39	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	11/04/16	2.00	22.81	ND	0.00	5.53	6,898.73	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	03/07/17	2.00	22.81	ND	0.00	5.23	6,899.03	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	06/05/17	2.00	22.81	ND	0.00	4.97	6,899.29	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	09/25/17	2.00	23.81	ND	0.00	5.68	6,898.58	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	11/21/17	2.00	19.30	ND	0.00	5.54	6,898.72	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	02/05/18	2.00	19.31	ND	0.00	5.29	6,898.97	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	04/25/18	2.00	19.26	ND	0.00	5.12	6,899.14	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	08/15/18	2.00	19.35	ND	0.00	5.64	6,898.62	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	11/14/18	2.00	19.30	ND	0.00	5.83	6,898.43	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	02/14/19	2.00	22.81	ND	0.00	5.64	6,898.62	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	05/06/19	2.00	22.81	ND	0.00	5.11	6,899.15	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	08/23/19	2.00	19.35	ND	0.00	5.69	6,898.57	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	10/22/19	2.00	19.30	ND	0.00	6.03	6,898.23	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	02/24/20	2.00	22.81	ND	0.00	5.49	6,898.77	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	06/26/20	2.00	22.81	ND	0.00	5.64	6,898.62	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	09/15/20	2.00	19.34	ND	0.00	6.14	6,898.12	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	11/10/20	2.00	19.34	ND	0.00	6.18	6,898.08	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	12/04/20	2.00	19.37	ND	0.00	6.12	6,898.14	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	01/28/21	2.00	13.37	ND	NA	6.01	6,898.25	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	02/28/21	2.00	19.36	ND	NA	5.92	6,898.34	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	03/31/21	2.00	19.36	ND	NA	6.00	6,898.26	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	04/26/21	2.00	19.36	ND	NA	5.79	6,898.47	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	05/20/21	2.00	19.36	ND	NA	5.90	6,898.36	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	06/01/21	2.00	19.36	ND	NA	5.82	6,898.44	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	07/21/21	2.00	19.36	ND	NA	6.02	6,898.24	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	08/26/21	2.00	19.36	ND	NA	6.64	6,897.62	NA	6 - 21	Chinle/Alluvium Interface

**APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-31	09/09/21	2.00	19.35	ND	NA	6.79	6,897.47	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	10/27/21	2.00	19.35	ND	NA	6.83	6,897.43	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	11/17/21	2.00	19.35	ND	NA	6.71	6,897.55	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	12/15/21	2.00	19.33	ND	NA	6.73	6,897.53	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	01/10/22	2.00	19.33	ND	NA	6.69	6,897.57	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	02/28/22	2.00	19.33	ND	NA	6.39	6,897.87	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	03/02/22	2.00	19.35	ND	NA	6.69	6,897.57	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	04/27/22	2.00	19.35	ND	NA	7.03	6,897.23	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	05/05/22	2.00	19.35	ND	NA	6.70	6,897.56	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	06/01/22	2.00	19.38	ND	NA	6.61	6,897.65	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	07/06/22	2.00	19.41	ND	NA	6.90	6,897.36	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	08/08/22	2.00	19.44	ND	NA	6.77	6,897.49	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	09/01/22	2.00	19.47	ND	NA	6.99	6,897.27	NA	6 - 21	Chinle/Alluvium Interface
04/01/14	MKTF-31	10/03/22	2.00	19.50	ND	NA	6.94	6,897.32	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	11/03/22	2.00	19.53	ND	NA	7.02	6,897.24	NA	6 - 21	Chinle/Alluvium Interface
	MKTF-31	12/08/22	2.00	19.56	ND	NA	7.04	6,897.22	NA	6 - 21	Chinle/Alluvium Interface
03/31/14	MKTF-32	03/12/15	2.00	27.75	ND	0.00	12.82	6,895.62	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-32	06/09/15	2.00	27.75	ND	0.00	12.82	6,895.62	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-32	08/21/15	2.00	28.75	ND	0.00	12.48	6,895.96	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-32	11/05/15	2.00	27.75	ND	0.00	12.17	6,896.27	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-32	02/24/16	2.00	27.75	ND	0.00	11.86	6,896.58	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-32	06/09/16	2.00	27.75	ND	0.00	11.64	6,896.80	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-32	09/09/16	2.00	28.75	ND	0.00	11.73	6,896.71	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-32	11/05/16	2.00	27.75	ND	0.00	12.17	6,896.27	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-32	03/07/17	2.00	27.75	ND	0.00	11.03	6,897.41	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-32	06/06/17	2.00	27.75	ND	0.00	11.12	6,897.32	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-32	09/25/17	2.00	28.75	ND	0.00	11.44	6,897.00	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-32	11/27/17	2.00	27.75	ND	0.00	10.90	6,897.54	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-32	02/07/18	2.00	27.75	ND	0.00	11.03	6,897.41	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-32	04/25/18	2.00	27.66	ND	0.00	10.81	6,897.63	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-32	08/15/18	2.00	27.77	ND	0.00	11.33	6,897.11	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-32	11/14/18	2.00	27.75	ND	0.00	11.43	6,897.01	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-32	02/13/19	2.00	27.75	ND	0.00	10.82	6,897.62	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-32	05/07/19	2.00	27.75	ND	0.00	10.58	6,897.86	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-32	08/20/19	2.00	27.77	ND	0.00	11.36	6,897.08	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-32	10/23/19	2.00	27.75	ND	0.00	11.34	6,897.10	NA	9 - 26	Chinle/Alluvium Interface
	MKTF-32	02/26/20	2.00	27.75	ND	0.00	11.11	6,897.33	NA	9 - 26	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-32	06/29/20	2.00	27.75	ND	0.00	11.58	6,896.86	NA	9- 26	Chinle/Alluvium Interface
	MKTF-32	09/14/20	2.00	27.46	ND	0.00	11.91	6,896.53	NA	9- 26	Chinle/Alluvium Interface
	MKTF-32	11/10/20	2.00	27.46	ND	0.00	11.64	6,896.80	NA	9- 26	Chinle/Alluvium Interface
	MKTF-32	12/04/20	2.00	27.82	ND	0.00	11.58	6,896.86	NA	9- 26	Chinle/Alluvium Interface
	MKTF-32	01/28/21	2.00	27.82	14.08	0.01	11.41	6,897.03	6897.04	9- 26	Chinle/Alluvium Interface
	MKTF-32	02/27/21	2.00	27.79	14.01	0.01	11.35	6,897.09	6897.10	9- 26	Chinle/Alluvium Interface
	MKTF-32	03/31/21	2.00	27.79	ND	NA	11.44	6,897.00	NA	9- 26	Chinle/Alluvium Interface
	MKTF-32	04/26/21	2.00	27.79	ND	NA	11.23	6,897.21	NA	9- 26	Chinle/Alluvium Interface
	MKTF-32	05/20/21	2.00	27.79	ND	NA	11.48	6,896.96	NA	9- 26	Chinle/Alluvium Interface
	MKTF-32	06/01/21	2.00	27.79	ND	NA	11.19	6,897.25	NA	9- 26	Chinle/Alluvium Interface
	MKTF-32	07/21/21	2.00	27.79	ND	NA	11.55	6,896.89	NA	9- 26	Chinle/Alluvium Interface
	MKTF-32	08/25/21	2.00	27.79	ND	NA	12.28	6,896.16	NA	9- 26	Chinle/Alluvium Interface
	MKTF-32	09/09/21	2.00	27.79	ND	NA	12.53	6,895.91	NA	9- 26	Chinle/Alluvium Interface
	MKTF-32	10/27/21	2.00	27.79	ND	NA	11.80	6,896.64	NA	9- 26	Chinle/Alluvium Interface
	MKTF-32	11/17/21	2.00	27.79	ND	NA	11.88	6,896.56	NA	9- 26	Chinle/Alluvium Interface
	MKTF-32	12/03/21	2.00	27.50	ND	NA	11.81	6,896.63	NA	9- 26	Chinle/Alluvium Interface
	MKTF-32	01/10/22	2.00	27.50	ND	NA	11.58	6,896.86	NA	9- 26	Chinle/Alluvium Interface
	MKTF-32	02/28/22	2.00	27.50	ND	NA	11.59	6,896.85	NA	9- 26	Chinle/Alluvium Interface
	MKTF-32	03/01/22	2.00	27.78	ND	NA	11.75	6,896.69	NA	9- 26	Chinle/Alluvium Interface
	MKTF-32	04/27/22	2.00	27.78	ND	NA	11.53	6,896.91	NA	9- 26	Chinle/Alluvium Interface
	MKTF-32	05/05/22	2.00	27.78	ND	NA	11.60	6,896.84	NA	9- 26	Chinle/Alluvium Interface
	MKTF-32	06/01/22	2.00	27.80	ND	NA	12.08	6,896.36	NA	9- 26	Chinle/Alluvium Interface
03/31/14	MKTF-32	07/06/22	2.00	27.82	ND	NA	12.16	6,896.28	NA	9- 26	Chinle/Alluvium Interface
	MKTF-32	08/08/22	2.00	27.84	ND	NA	12.53	6,895.91	NA	9- 26	Chinle/Alluvium Interface
	MKTF-32	09/01/22	2.00	27.86	ND	NA	11.83	6,896.61	NA	9- 26	Chinle/Alluvium Interface
	MKTF-32	10/03/22	2.00	27.88	ND	NA	12.13	6,896.31	NA	9- 26	Chinle/Alluvium Interface
	MKTF-32	11/03/22	2.00	27.90	ND	NA	12.08	6,896.36	NA	9- 26	Chinle/Alluvium Interface
	MKTF-32	12/06/22	2.00	27.92	ND	NA	7.14	6,901.30	NA	9- 26	Chinle/Alluvium Interface
04/03/14	MKTF-33	03/12/15	2.00	33.20	ND	0.00	20.16	6,916.43	NA	20 - 30	Chinle/Alluvium Interface
	MKTF-33	06/09/15	2.00	33.20	ND	0.00	20.14	6,916.45	NA	20 - 30	Chinle/Alluvium Interface
	MKTF-33	08/21/15	2.00	34.20	ND	0.00	20.16	6,916.43	NA	20 - 30	Chinle/Alluvium Interface
	MKTF-33	11/09/15	2.00	33.20	ND	0.00	20.03	6,916.56	NA	20 - 30	Chinle/Alluvium Interface
	MKTF-33	02/25/16	2.00	33.20	ND	0.00	20.04	6,916.55	NA	20 - 30	Chinle/Alluvium Interface
	MKTF-33	06/10/16	2.00	33.20	ND	0.00	20.13	6,916.46	NA	20 - 30	Chinle/Alluvium Interface
	MKTF-33	09/10/16	2.00	34.20	ND	0.00	20.04	6,916.55	NA	20 - 30	Chinle/Alluvium Interface
	MKTF-33	11/09/16	2.00	33.20	ND	0.00	20.03	6,916.56	NA	20 - 30	Chinle/Alluvium Interface
	MKTF-33	03/08/17	2.00	33.20	ND	0.00	19.00	6,917.59	NA	20 - 30	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-33	06/07/17	2.00	33.20	ND	0.00	18.91	6,917.68	NA	20 - 30	Chinle/Alluvium Interface
	MKTF-33	09/25/17	2.00	33.20	ND	0.00	19.34	6,917.25	NA	20 - 30	Chinle/Alluvium Interface
	MKTF-33	11/27/17	2.00	33.22	ND	0.00	19.11	6,917.48	NA	20 - 30	Chinle/Alluvium Interface
	MKTF-33	02/07/18	2.00	33.20	ND	0.00	19.49	6,917.10	NA	20 - 30	Chinle/Alluvium Interface
	MKTF-33	04/26/18	2.00	33.11	ND	0.00	19.39	6,917.20	NA	20 - 30	Chinle/Alluvium Interface
	MKTF-33	08/15/18	2.00	33.23	ND	0.00	19.69	6,916.90	NA	20 - 30	Chinle/Alluvium Interface
	MKTF-33	11/27/18	2.00	33.22	ND	0.00	19.56	6,917.03	NA	20 - 30	Chinle/Alluvium Interface
	MKTF-33	03/25/19	2.00	33.20	ND	0.00	18.84	6,917.75	NA	20 - 30	Chinle/Alluvium Interface
	MKTF-33	05/09/19	2.00	33.20	ND	0.00	18.88	6,917.71	NA	20 - 30	Chinle/Alluvium Interface
	MKTF-33	08/20/19	2.00	33.23	ND	0.00	19.19	6,917.40	NA	20 - 30	Chinle/Alluvium Interface
	MKTF-33	10/24/19	2.00	33.22	ND	0.00	19.34	6,917.25	NA	20 - 30	Chinle/Alluvium Interface
	MKTF-33	02/27/20	2.00	33.20	ND	0.00	19.55	6,917.04	NA	20 - 30	Chinle/Alluvium Interface
	MKTF-33	06/29/20	2.00	33.20	ND	0.00	18.01	6,918.58	NA	20 - 30	Chinle/Alluvium Interface
	MKTF-33	09/14/20	2.00	33.15	21.61	6.41	24.86	6,911.73	6916.86	20 - 30	Chinle/Alluvium Interface
	MKTF-33	11/10/20	2.00	33.15	21.65	6.16	24.65	6,911.94	6916.87	20 - 30	Chinle/Alluvium Interface
	MKTF-33	12/04/20	2.00	33.57	21.69	6.08	24.61	6,911.98	6916.84	20 - 30	Chinle/Alluvium Interface
	MKTF-33	01/28/21	2.00	33.57	22.58	3.38	22.80	6,913.79	6916.49	20 - 30	Chinle/Alluvium Interface
	MKTF-33	02/27/21	2.00	33.28	23.00	0.75	20.59	6,916.00	6916.60	20 - 30	Chinle/Alluvium Interface
	MKTF-33	03/31/21	2.00	33.28	23.19	0.22	20.25	6,916.34	6916.52	20 - 30	Chinle/Alluvium Interface
	MKTF-33	04/26/21	2.00	33.28	24.16	0.61	21.61	6,914.98	6915.47	20 - 30	Chinle/Alluvium Interface
	MKTF-33	05/20/21	2.00	33.28	23.21	0.31	20.36	6,916.23	6916.48	20 - 30	Chinle/Alluvium Interface
	MKTF-33	06/01/21	2.00	33.28	23.07	0.38	20.29	6,916.30	6916.60	20 - 30	Chinle/Alluvium Interface
	MKTF-33	07/07/21	2.00	33.28	23.35	0.05	20.24	6,916.35	6916.39	20 - 30	Chinle/Alluvium Interface
	MKTF-33	08/25/21	2.00	33.28	23.45	0.15	20.44	6,916.15	6916.27	20 - 30	Chinle/Alluvium Interface
	MKTF-33	09/09/21	2.00	33.28	23.47	0.18	20.49	6,916.10	6916.24	20 - 30	Chinle/Alluvium Interface
	MKTF-33	10/27/21	2.00	33.28	23.38	0.03	20.25	6,916.34	6916.36	20 - 30	Chinle/Alluvium Interface
	MKTF-33	11/02/21	2.00	33.28	23.35	0.02	20.21	6,916.38	6916.40	20 - 30	Chinle/Alluvium Interface
	MKTF-33	12/03/21	2.00	33.28	23.29	0.04	20.17	6,916.42	6916.45	20 - 30	Chinle/Alluvium Interface
	MKTF-33	01/10/22	2.00	33.28	23.20	0.15	20.19	6,916.40	6916.52	20 - 30	Chinle/Alluvium Interface
	MKTF-33	02/28/22	2.00	33.28	22.92	0.02	19.78	6,916.81	6916.83	20 - 30	Chinle/Alluvium Interface
	MKTF-33	03/01/22	2.00	33.10	23.25	0.04	20.13	6,916.46	6916.49	20 - 30	Chinle/Alluvium Interface
04/03/14	MKTF-33	04/27/22	2.00	33.10	23.15	0.04	20.03	6,916.56	6916.59	20 - 30	Chinle/Alluvium Interface
	MKTF-33	05/04/22	2.00	33.10	23.23	0.02	20.09	6,916.50	6916.52	20 - 30	Chinle/Alluvium Interface
	MKTF-33	06/01/22	2.00	33.12	23.40	0.06	20.30	6,916.29	6916.34	20 - 30	Chinle/Alluvium Interface
	MKTF-33	07/06/22	2.00	33.14	23.22	0.03	20.09	6,916.50	6916.52	20 - 30	Chinle/Alluvium Interface
	MKTF-33	08/08/22	2.00	33.16	23.18	0.04	20.06	6,916.53	6916.56	20 - 30	Chinle/Alluvium Interface
	MKTF-33	09/01/22	2.00	33.18	23.34	0.04	20.22	6,916.37	6916.40	20 - 30	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-33	10/03/22	2.00	33.20	23.45	0.05	20.34	6,916.25	6916.29	20 - 30	Chinle/Alluvium Interface
	MKTF-33	11/03/22	2.00	33.22	23.46	0.07	20.37	6,916.22	6916.28	20 - 30	Chinle/Alluvium Interface
	MKTF-33	12/06/22	2.00	33.24	23.48	0.07	20.39	6,916.20	6916.26	20 - 30	Chinle/Alluvium Interface
03/31/14	MKTF-34	03/12/15	2.00	27.68	ND	0.00	15.84	6,926.58	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	06/08/15	2.00	27.68	ND	0.00	15.97	6,926.45	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	08/18/15	2.00	28.68	ND	0.00	15.81	6,926.61	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	11/03/15	2.00	27.68	ND	0.00	16.07	6,926.35	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	02/25/16	2.00	27.68	ND	0.00	16.27	6,926.15	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	06/10/16	2.00	27.68	ND	0.00	15.67	6,926.75	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	09/12/16	2.00	28.68	ND	0.00	15.10	6,927.32	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	11/03/16	2.00	27.68	ND	0.00	16.07	6,926.35	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	03/01/17	2.00	27.68	ND	0.00	13.57	6,928.85	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	06/14/17	2.00	27.68	ND	0.00	14.70	6,927.72	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	09/26/17	2.00	27.68	ND	0.00	14.69	6,927.73	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	11/30/17	2.00	27.70	ND	0.00	15.10	6,927.32	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	02/15/18	2.00	27.71	ND	0.00	15.87	6,926.55	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	04/26/18	2.00	27.60	ND	0.00	15.70	6,926.72	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	08/15/18	2.00	27.70	ND	0.00	15.65	6,926.77	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	11/27/18	2.00	27.70	ND	0.00	16.02	6,926.40	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	03/25/19	2.00	27.68	ND	0.00	14.02	6,928.40	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	05/09/19	2.00	27.68	ND	0.00	15.16	6,927.26	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	08/19/19	2.00	27.70	ND	0.00	14.77	6,927.65	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	10/29/19	2.00	27.70	ND	0.00	15.10	6,927.32	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	11/12/19	2.00	27.70	ND	0.00	15.13	6,927.29	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	02/05/20	2.00	27.70	ND	0.00	14.85	6,927.57	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	06/29/20	2.00	27.70	19.04	0.02	16.13	6,926.29	6926.31	9 - 24	Chinle/Alluvium Interface
	MKTF-34	09/14/20	2.00	27.76	ND	0.00	16.16	6,926.26	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	11/10/20	2.00	27.76	ND	0.00	16.15	6,926.27	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	12/04/20	2.00	27.78	18.91	0.01	15.99	6,926.43	6,926.44	9 - 24	Chinle/Alluvium Interface
	MKTF-34	01/28/21	2.00	27.80	ND	NA	16.46	6,925.96	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	02/28/21	2.00	27.79	18.40	0.01	15.48	6,926.94	6,926.95	9 - 24	Chinle/Alluvium Interface
	MKTF-34	03/31/21	2.00	27.79	ND	NA	17.68	6,924.74	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	04/26/21	2.00	27.79	ND	NA	19.68	6,922.74	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	05/20/21	2.00	27.79	ND	NA	17.67	6,924.75	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	06/01/21	2.00	27.79	ND	NA	17.30	6,925.12	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	07/21/21	2.00	27.79	ND	NA	17.28	6,925.14	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	08/25/21	2.00	27.79	ND	NA	16.87	6,925.55	NA	9 - 24	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-34	09/09/21	2.00	27.79	ND	NA	16.97	6,925.45	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	10/27/21	2.00	27.79	ND	NA	16.45	6,925.97	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	11/17/21	2.00	27.79	ND	NA	16.51	6,925.91	NA	9 - 24	Chinle/Alluvium Interface
03/31/14	MKTF-34	12/03/21	2.00	27.79	ND	NA	16.67	6,925.75	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	01/10/22	2.00	27.79	ND	NA	16.69	6,925.73	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	02/28/22	2.00	27.79	ND	NA	16.68	6,925.74	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	03/01/22	2.00	27.72	ND	NA	15.76	6,926.66	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	04/27/22	2.00	27.72	ND	NA	15.98	6,926.44	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	05/05/22	2.00	27.72	ND	NA	16.00	6,926.42	NA	9 - 24	Chinle/Alluvium Interface
	MKTF-34	06/01/22	2.00	27.72	18.70	0.02	15.79	6,926.63	6,926.65	9 - 24	Chinle/Alluvium Interface
	MKTF-34	07/06/22	2.00	27.72	17.63	0.69	15.39	6,927.03	6,927.58	9 - 24	Chinle/Alluvium Interface
	MKTF-34	08/08/22	2.00	27.72	17.84	0.82	15.73	6,926.69	6,927.35	9 - 24	Chinle/Alluvium Interface
	MKTF-34	09/01/22	2.00	27.72	18.66	0.03	15.76	6,926.66	6,926.68	9 - 24	Chinle/Alluvium Interface
	MKTF-34	10/03/22	2.00	27.72	18.65	0.04	15.76	6,926.66	6,926.69	9 - 24	Chinle/Alluvium Interface
	MKTF-34	11/03/22	2.00	27.72	18.64	0.06	15.77	6,926.65	6,926.70	9 - 24	Chinle/Alluvium Interface
	MKTF-34	12/06/22	2.00	27.72	18.75	0.07	15.89	6,926.53	NA	9 - 24	Chinle/Alluvium Interface
11/19/14	MKTF-35	03/17/15	2.00	16.45	ND	0.00	9.18	6,942.72	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	06/04/15	2.00	16.45	ND	0.00	9.18	6,942.72	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	08/18/15	2.00	16.45	ND	0.00	9.16	6,942.74	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	11/03/15	2.00	16.45	ND	0.00	9.27	6,942.63	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	02/26/16	2.00	16.45	ND	0.00	8.65	6,943.25	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	06/10/16	2.00	16.45	ND	0.00	7.62	6,944.28	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	09/12/16	2.00	16.45	ND	0.00	6.90	6,945.00	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	11/03/16	2.00	16.45	ND	0.00	9.27	6,942.63	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	03/01/17	2.00	16.45	ND	0.00	6.43	6,945.47	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	06/14/17	2.00	16.45	ND	0.00	7.37	6,944.53	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	09/27/17	2.00	16.45	ND	0.00	7.95	6,943.95	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	11/30/17	2.00	16.45	ND	0.00	8.40	6,943.50	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	02/15/18	2.00	16.47	ND	0.00	8.95	6,942.95	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	04/26/18	2.00	16.40	ND	0.00	8.78	6,943.12	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	08/16/18	2.00	16.48	ND	0.00	8.95	6,942.95	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	11/27/18	2.00	16.45	ND	0.00	9.35	6,942.55	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	03/25/19	2.00	16.45	ND	0.00	8.79	6,943.11	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	05/16/19	2.00	16.45	ND	0.00	8.74	6,943.16	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	08/19/19	2.00	16.48	ND	0.00	8.34	6,943.56	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	10/28/19	2.00	16.45	ND	0.00	8.67	6,943.23	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	10/29/19	2.00	16.45	ND	0.00	8.65	6,943.25	NA	6 - 16	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-35	11/12/19	2.00	16.45	ND	0.00	8.85	6,943.05	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	02/05/20	2.00	16.45	ND	0.00	9.53	6,942.37	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	06/30/20	2.00	16.45	ND	0.00	9.50	6,942.40	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	09/14/20	2.00	16.23	ND	0.00	8.84	6,943.06	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	11/10/20	2.00	16.23	ND	0.00	9.11	6,942.79	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	12/04/20	2.00	16.39	9.02	0.01	9.28	6,942.62	6,942.63	6 - 16	Chinle/Alluvium Interface
	MKTF-35	01/28/21	2.00	16.39	ND	NA	9.71	6,942.19	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	02/28/21	2.00	16.55	ND	NA	9.42	6,942.48	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	03/31/21	2.00	16.55	ND	NA	9.75	6,942.15	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	04/26/21	2.00	16.55	ND	NA	10.58	6,941.32	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	05/20/21	2.00	16.55	ND	NA	9.85	6,942.05	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	06/01/21	2.00	16.55	ND	NA	9.72	6,942.18	NA	6 - 16	Chinle/Alluvium Interface
11/19/14	MKTF-35	07/21/21	2.00	16.55	ND	NA	9.72	6,942.18	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	08/25/21	2.00	16.55	ND	NA	9.91	6,941.99	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	09/09/21	2.00	16.55	ND	NA	10.06	6,941.84	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	10/27/21	2.00	16.55	ND	NA	10.12	6,941.78	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	11/17/21	2.00	16.55	ND	NA	10.24	6,941.66	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	12/02/21	2.00	16.48	ND	NA	10.40	6,941.50	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	01/10/22	2.00	16.48	ND	NA	10.23	6,941.67	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	02/28/22	2.00	16.48	ND	NA	10.25	6,941.65	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	03/01/22	2.00	16.48	ND	NA	10.35	6,941.55	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	04/27/22	2.00	16.48	ND	NA	10.65	6,941.25	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	05/05/22	2.00	16.48	ND	NA	10.64	6,941.26	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	06/01/22	2.00	16.49	ND	NA	10.70	6,941.20	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	07/06/22	2.00	16.50	ND	NA	12.35	6,939.55	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	08/08/22	2.00	16.51	ND	NA	11.48	6,940.42	NA	6 - 16	Chinle/Alluvium Interface
	MKTF-35	09/01/22	2.00	16.52	9.91	0.05	10.21	6,941.69	6941.73	6 - 16	Chinle/Alluvium Interface
	MKTF-35	10/03/22	2.00	16.53	10.02	0.05	10.32	6,941.58	6941.62	6 - 16	Chinle/Alluvium Interface
	MKTF-35	11/03/22	2.00	16.54	10.00	0.03	10.28	6,941.62	6941.64	6 - 16	Chinle/Alluvium Interface
	MKTF-35	12/06/22	2.00	16.55	10.01	0.04	10.30	6,941.60	6941.63	6 - 16	Chinle/Alluvium Interface
11/19/14	MKTF-36	03/17/15	2.00	15.45	ND	0.00	8.26	6,942.41	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-36	06/04/15	2.00	15.45	ND	0.00	8.08	6,942.59	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-36	08/18/15	2.00	15.45	ND	0.00	8.05	6,942.62	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-36	11/03/15	2.00	15.45	7.00	0.66	8.21	6,942.46	6,942.99	5 - 15	Chinle/Alluvium Interface
	MKTF-36	03/17/16	2.00	15.45	ND	0.00	8.26	6,942.41	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-36	06/10/16	2.00	15.45	6.78	0.02	7.35	6,943.32	6,943.34	5 - 15	Chinle/Alluvium Interface
	MKTF-36	09/13/16	2.00	15.45	6.54	0.01	7.10	6,943.57	6,943.58	5 - 15	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-36	11/03/16	2.00	15.45	7.00	0.66	8.21	6,942.46	6,942.99	5 - 15	Chinle/Alluvium Interface
	MKTF-36	03/01/17	2.00	15.45	ND	0.00	6.11	6,944.56	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-36	06/14/17	2.00	15.45	ND	0.00	5.95	6,944.72	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-36	09/27/17	2.00	15.45	ND	0.00	6.35	6,944.32	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-36	11/30/17	2.00	15.45	ND	0.00	7.00	6,943.67	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-36	02/15/18	2.00	15.45	ND	0.00	7.41	6,943.26	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-36	04/26/18	2.00	15.40	ND	0.00	7.11	6,943.56	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-36	09/05/18	2.00	15.43	ND	0.00	7.07	6,943.60	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-36	11/29/18	2.00	NM	NM	0.00	#VALUE!	NA	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-36	03/25/19	2.00	NM	NM	0.00	#VALUE!	NA	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-36	05/14/19	2.00	NM	NM	0.00	#VALUE!	NA	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-36	08/19/19	2.00	NM	NM	0.00	#VALUE!	NA	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-36	11/06/19	2.00	15.40	5.08	5.25	10.88	6,939.79	6,943.99	5 - 15	Chinle/Alluvium Interface
	MKTF-36	11/07/19	2.00	15.61	4.30	5.91	10.60	6,943.30	6,948.03	5 - 15	Chinle/Alluvium Interface
	MKTF-36	11/12/19	2.00	15.61	6.80	2.85	10.04	6,943.86	6,946.14	5 - 15	Chinle/Alluvium Interface
	MKTF-36	11/13/19	2.00	15.61	6.95	2.45	9.79	6,944.11	6,946.07	5 - 15	Chinle/Alluvium Interface
	MKTF-36	11/14/19	2.00	15.61	7.14	2.47	10.00	6,943.90	6,945.88	5 - 15	Chinle/Alluvium Interface
	MKTF-36	11/15/19	2.00	15.61	7.31	2.15	9.85	6,944.05	6,945.77	5 - 15	Chinle/Alluvium Interface
	MKTF-36	11/19/19	2.00	15.61	7.80	1.18	9.37	6,944.53	6,945.47	5 - 15	Chinle/Alluvium Interface
	MKTF-36	11/21/19	2.00	15.61	8.00	0.78	9.17	6,944.73	6,945.35	5 - 15	Chinle/Alluvium Interface
	MKTF-36	12/02/19	2.00	15.61	8.25	0.70	9.34	6,944.56	6,945.12	5 - 15	Chinle/Alluvium Interface
11/19/14	MKTF-36	02/03/20	2.00	15.61	7.89	0.55	8.83	6,945.07	6945.51	5 - 15	Chinle/Alluvium Interface
	MKTF-36	06/30/20	2.00	15.61	8.04	0.21	8.64	6,945.26	6945.43	5 - 15	Chinle/Alluvium Interface
	MKTF-36	09/14/20	2.00	15.58	ND	0.00	8.26	6,945.64	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-36	11/10/20	2.00	15.58	7.98	0.05	8.42	6,945.48	6945.52	5 - 15	Chinle/Alluvium Interface
	MKTF-36	12/04/20	2.00	15.58	8.10	0.07	8.56	6,945.34	6945.40	5 - 15	Chinle/Alluvium Interface
	MKTF-36	01/28/21	2.00	15.58	8.13	0.05	8.57	6,945.33	6945.37	5 - 15	Chinle/Alluvium Interface
	MKTF-36	02/28/21	2.00	15.58	8.26	0.01	8.66	6,945.24	6945.25	5 - 15	Chinle/Alluvium Interface
	MKTF-36	03/31/21	2.00	15.58	ND	NA	8.75	6,945.15	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-36	04/26/21	2.00	15.58	ND	NA	9.30	6,944.60	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-36	05/20/21	2.00	15.58	ND	NA	8.69	6,945.21	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-36	06/01/21	2.00	15.58	ND	NA	8.50	6,945.40	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-36	07/21/21	2.00	15.58	8.20	0.05	8.64	6,945.26	6945.30	5 - 15	Chinle/Alluvium Interface
	MKTF-36	08/25/21	2.00	15.58	8.45	0.15	8.99	6,944.91	6945.03	5 - 15	Chinle/Alluvium Interface
	MKTF-36	09/08/21	2.00	15.58	8.44	0.12	8.95	6,944.95	6945.05	5 - 15	Chinle/Alluvium Interface
	MKTF-36	10/27/21	2.00	15.58	8.70	0.15	9.24	6,944.66	6944.78	5 - 15	Chinle/Alluvium Interface
	MKTF-36	11/17/21	2.00	15.58	8.76	0.10	9.25	6,944.65	6944.73	5 - 15	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-36	12/09/21	2.00	15.58	8.41	0.19	8.99	6,944.91	6945.06	5 - 15	Chinle/Alluvium Interface
	MKTF-36	01/10/22	2.00	15.58	8.37	0.20	8.96	6,944.94	6945.10	5 - 15	Chinle/Alluvium Interface
	MKTF-36	02/28/22	2.00	15.58	8.30	0.30	8.99	6,944.91	6945.15	5 - 15	Chinle/Alluvium Interface
	MKTF-36	03/02/22	2.00	15.58	8.37	0.18	8.94	6,944.96	6945.10	5 - 15	Chinle/Alluvium Interface
	MKTF-36	04/27/22	2.00	15.58	9.07	0.08	9.54	6,944.36	6944.42	5 - 15	Chinle/Alluvium Interface
	MKTF-36	05/04/22	2.00	15.58	9.00	0.10	9.49	6,944.41	6944.49	5 - 15	Chinle/Alluvium Interface
	MKTF-36	06/01/22	2.00	15.60	8.35	0.17	8.91	6,944.99	6945.13	5 - 15	Chinle/Alluvium Interface
	MKTF-36	07/06/22	2.00	15.62	8.52	0.07	8.98	6,944.92	6944.98	5 - 15	Chinle/Alluvium Interface
	MKTF-36	08/08/22	2.00	15.64	8.47	0.07	8.93	6,944.97	6945.03	5 - 15	Chinle/Alluvium Interface
	MKTF-36	09/01/22	2.00	15.66	8.27	0.07	8.73	6,945.17	6945.23	5 - 15	Chinle/Alluvium Interface
	MKTF-36	10/03/22	2.00	15.68	8.31	0.07	8.77	6,945.13	6945.19	5 - 15	Chinle/Alluvium Interface
	MKTF-36	11/03/22	2.00	15.70	8.33	0.07	8.79	6,945.11	6945.17	5 - 15	Chinle/Alluvium Interface
	MKTF-36	12/06/22	2.00	15.72	8.40	0.08	8.87	6,945.03	6945.09	5 - 15	Chinle/Alluvium Interface
11/18/14	MKTF-37	03/17/15	2.00	24.60	ND	0.00	9.41	6,949.66	NA	4 - 24	Chinle/Alluvium Interface
	MKTF-37	06/04/15	2.00	24.60	ND	0.00	9.68	6,949.39	NA	4 - 24	Chinle/Alluvium Interface
	MKTF-37	08/18/15	2.00	24.60	ND	0.00	9.65	6,949.42	NA	4 - 24	Chinle/Alluvium Interface
	MKTF-37	11/03/15	2.00	24.60	9.54	0.03	9.77	6,949.30	6,949.32	4 - 24	Chinle/Alluvium Interface
	MKTF-37	03/17/16	2.00	24.60	ND	0.00	9.41	6,949.66	NA	4 - 24	Chinle/Alluvium Interface
	MKTF-37	06/10/16	2.00	24.60	8.21	0.02	8.43	6,950.64	6,950.66	4 - 24	Chinle/Alluvium Interface
	MKTF-37	09/12/16	2.00	24.60	ND	0.00	7.85	6,951.22	NA	4 - 24	Chinle/Alluvium Interface
	MKTF-37	11/03/16	2.00	24.60	9.54	0.03	9.77	6,949.30	6,949.32	4 - 24	Chinle/Alluvium Interface
	MKTF-37	03/01/17	2.00	24.60	ND	0.00	7.10	6,951.97	NA	4 - 24	Chinle/Alluvium Interface
	MKTF-37	06/14/17	2.00	24.60	7.20	0.04	7.44	6,951.63	6,951.66	4 - 24	Chinle/Alluvium Interface
	MKTF-37	09/27/17	2.00	24.60	7.83	0.06	8.09	6,950.98	6,951.03	4 - 24	Chinle/Alluvium Interface
	MKTF-37	11/30/17	2.00	24.60	8.39	0.02	8.61	6,950.46	6,950.48	4 - 24	Chinle/Alluvium Interface
	MKTF-37	02/15/18	2.00	24.60	8.96	0.04	9.20	6,949.87	6,949.90	4 - 24	Chinle/Alluvium Interface
	MKTF-37	04/26/18	2.00	24.54	ND	0.00	8.72	6,950.35	NA	4 - 24	Chinle/Alluvium Interface
	MKTF-37	08/16/18	2.00	24.59	ND	0.00	8.90	6,950.17	NA	4 - 24	Chinle/Alluvium Interface
	MKTF-37	11/27/18	2.00	24.60	9.40	0.12	9.72	6,949.35	6,949.45	4 - 24	Chinle/Alluvium Interface
	MKTF-37	03/25/19	2.00	24.60	ND	0.00	8.59	6,950.48	NA	4 - 24	Chinle/Alluvium Interface
11/18/14	MKTF-37	05/16/19	2.00	24.60	9.10	0.08	9.38	6,949.69	6,949.75	4 - 24	Chinle/Alluvium Interface
	MKTF-37	08/23/19	2.00	24.59	8.85	0.02	9.07	6,950.00	6,950.02	4 - 24	Chinle/Alluvium Interface
	MKTF-37	10/28/19	2.00	24.60	9.30	0.03	9.53	6,949.54	6,949.56	4 - 24	Chinle/Alluvium Interface
	MKTF-37	10/29/19	2.00	24.60	9.17	0.03	9.40	6,949.67	6,949.69	4 - 24	Chinle/Alluvium Interface
	MKTF-37	11/12/19	2.00	24.60	9.52	0.04	9.76	6,949.31	6,949.34	4 - 24	Chinle/Alluvium Interface
	MKTF-37	02/03/20	2.00	24.60	9.77	0.12	10.09	6,948.98	6949.08	4 - 24	Chinle/Alluvium Interface
	MKTF-37	06/30/20	2.00	24.60	9.61	0.02	9.83	6,949.24	6949.26	4 - 24	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-37	09/14/20	2.00	24.54	ND	0.00	8.96	6,950.11	NA	4 - 24	Chinle/Alluvium Interface
	MKTF-37	11/10/20	2.00	24.54	9.36	0.01	9.57	6,949.50	6949.51	4 - 24	Chinle/Alluvium Interface
	MKTF-37	12/04/20	2.00	24.61	9.64	0.01	9.85	6,949.22	6949.23	4 - 24	Chinle/Alluvium Interface
	MKTF-37	01/28/21	2.00	24.61	9.64	0.01	9.85	6,949.22	6949.23	4 - 24	Chinle/Alluvium Interface
	MKTF-37	02/28/21	2.00	24.67	9.65	0.02	9.87	6,949.20	6949.22	4 - 24	Chinle/Alluvium Interface
	MKTF-37	03/31/21	2.00	24.67	9.83	0.02	10.05	6,949.02	6949.04	4 - 24	Chinle/Alluvium Interface
	MKTF-37	04/26/21	2.00	24.67	10.10	0.03	10.33	6,948.74	6948.76	4 - 24	Chinle/Alluvium Interface
	MKTF-37	05/20/21	2.00	24.67	9.79	0.03	10.02	6,949.05	6949.07	4 - 24	Chinle/Alluvium Interface
	MKTF-37	06/01/21	2.00	24.67	9.86	0.04	10.10	6,948.97	6949.00	4 - 24	Chinle/Alluvium Interface
	MKTF-37	07/21/21	2.00	24.67	9.85	0.41	10.46	6,948.61	6948.94	4 - 24	Chinle/Alluvium Interface
	MKTF-37	08/25/21	2.00	24.67	10.40	0.05	10.65	6,948.42	6948.46	4 - 24	Chinle/Alluvium Interface
	MKTF-37	09/08/21	2.00	24.67	9.94	0.17	10.31	6,948.76	6948.90	4 - 24	Chinle/Alluvium Interface
	MKTF-37	10/27/21	2.00	24.67	10.58	0.02	10.80	6,948.27	6948.29	4 - 24	Chinle/Alluvium Interface
	MKTF-37	11/17/21	2.00	24.67	10.42	0.04	10.66	6,948.41	6948.44	4 - 24	Chinle/Alluvium Interface
	MKTF-37	12/09/21	2.00	24.67	10.30	0.07	10.57	6,948.50	6948.56	4 - 24	Chinle/Alluvium Interface
	MKTF-37	01/10/22	2.00	24.67	11.10	0.15	11.45	6,947.62	6947.74	4 - 24	Chinle/Alluvium Interface
	MKTF-37	02/28/22	2.00	24.67	11.00	0.24	11.44	6,947.63	6947.82	4 - 24	Chinle/Alluvium Interface
	MKTF-37	03/01/22	2.00	24.69	10.32	0.07	10.59	6,948.48	6948.54	4 - 24	Chinle/Alluvium Interface
	MKTF-37	04/27/22	2.00	24.69	11.32	0.23	11.75	6,947.32	6947.50	4 - 24	Chinle/Alluvium Interface
	MKTF-37	05/05/22	2.00	24.69	11.11	0.10	11.41	6,947.66	6947.74	4 - 24	Chinle/Alluvium Interface
	MKTF-37	06/01/22	2.00	24.70	10.39	0.05	10.64	6,948.43	6948.47	4 - 24	Chinle/Alluvium Interface
	MKTF-37	07/06/22	2.00	24.71	10.96	0.01	11.17	6,947.90	6947.91	4 - 24	Chinle/Alluvium Interface
	MKTF-37	08/08/22	2.00	24.72	11.03	0.04	11.27	6,947.80	6947.83	4 - 24	Chinle/Alluvium Interface
	MKTF-37	09/01/22	2.00	24.73	10.35	0.06	10.61	6,948.46	6948.51	4 - 24	Chinle/Alluvium Interface
	MKTF-37	10/03/22	2.00	24.74	10.30	0.07	10.57	6,948.50	6948.56	4 - 24	Chinle/Alluvium Interface
	MKTF-37	11/03/22	2.00	24.75	10.32	0.05	10.57	6,948.50	6948.54	4 - 24	Chinle/Alluvium Interface
	MKTF-37	12/06/22	2.00	24.76	10.60	0.04	10.84	6,948.23	6948.26	4 - 24	Chinle/Alluvium Interface
11/20/14	MKTF-38	03/16/15	2.00	20.29	ND	0.00	9.28	6,945.89	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	06/10/15	2.00	20.29	ND	0.00	9.62	6,945.55	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	08/24/15	2.00	20.29	ND	0.00	9.53	6,945.64	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	11/09/15	2.00	20.29	ND	0.00	9.73	6,945.44	NA	5 - 20	Chinle/Alluvium Interface
11/20/14	MKTF-38	02/29/16	2.00	20.29	ND	0.00	8.91	6,946.26	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	06/08/16	2.00	20.29	ND	0.00	8.71	6,946.46	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	09/13/16	2.00	20.29	ND	0.00	8.28	6,946.89	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	11/09/16	2.00	20.29	ND	0.00	9.73	6,945.44	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	03/14/17	2.00	20.29	ND	0.00	6.69	6,948.48	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	06/21/17	2.00	20.29	ND	0.00	6.68	6,948.49	NA	5 - 20	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-38	09/28/17	2.00	20.29	ND	0.00	6.60	6,948.57	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	11/30/17	2.00	20.29	ND	0.00	8.11	6,947.06	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	02/12/18	2.00	20.30	ND	0.00	8.68	6,946.49	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	04/25/18	2.00	20.28	ND	0.00	8.07	6,947.10	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	08/16/18	2.00	20.27	ND	0.00	8.33	6,946.84	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	11/19/18	2.00	20.29	ND	0.00	9.27	6,945.90	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	03/26/19	2.00	20.29	ND	0.00	11.58	6,943.59	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	05/14/19	2.00	20.29	ND	0.00	8.94	6,946.23	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	06/27/19	2.00	20.29	ND	0.00	9.03	6,946.14	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	08/20/19	2.00	20.27	ND	0.00	9.05	6,946.12	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	12/03/19	2.00	20.29	ND	0.00	9.78	6,945.39	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	03/04/20	2.00	20.31	ND	0.00	9.89	6,945.28	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	06/26/20	2.00	20.33	ND	0.00	9.66	6,945.51	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	09/14/20	2.00	20.18	ND	0.00	8.83	6,946.34	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	11/10/20	2.00	20.18	ND	0.00	9.40	6,945.77	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	12/04/20	2.00	21.30	9.35	0.01	9.64	6,945.53	6,945.54	5 - 20	Chinle/Alluvium Interface
	MKTF-38	02/28/21	2.00	21.30	ND	NA	9.50	6,945.67	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	02/28/21	2.00	20.34	ND	NA	9.45	6,945.72	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	03/31/21	2.00	20.34	ND	NA	9.58	6,945.59	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	04/26/21	2.00	20.34	ND	NA	9.14	6,946.03	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	05/20/21	2.00	20.34	ND	NA	9.59	6,945.58	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	06/01/21	2.00	20.34	ND	NA	9.23	6,945.94	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	07/21/21	2.00	20.34	ND	NA	10.17	6,945.00	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	08/25/21	2.00	20.34	ND	NA	10.43	6,944.74	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	09/08/21	2.00	20.34	ND	NA	10.58	6,944.59	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	10/27/21	2.00	20.34	ND	NA	10.60	6,944.57	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	11/17/21	2.00	20.34	ND	NA	10.83	6,944.34	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	12/03/21	2.00	20.34	ND	NA	10.98	6,944.19	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	01/10/22	2.00	20.34	ND	NA	10.96	6,944.21	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	02/28/22	2.00	20.34	ND	NA	10.98	6,944.19	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	03/01/22	2.00	20.28	ND	NA	10.94	6,944.23	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	04/27/22	2.00	20.28	ND	NA	11.40	6,943.77	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	05/05/22	2.00	20.28	ND	NA	11.27	6,943.90	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	06/01/22	2.00	20.30	ND	NA	10.98	6,944.19	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	07/06/22	2.00	20.32	ND	NA	10.05	6,945.12	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	08/08/22	2.00	20.34	ND	NA	10.50	6,944.67	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	09/01/22	2.00	20.36	ND	NA	11.13	6,944.04	NA	5 - 20	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-38	10/03/22	2.00	20.38	ND	NA	11.21	6,943.96	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	11/03/22	2.00	20.40	ND	NA	11.23	6,943.94	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-38	12/05/22	2.00	20.42	ND	NA	10.60	6,944.57	NA	5 - 20	Chinle/Alluvium Interface
11/14/14	MKTF-39	03/16/15	2.00	15.20	ND	0.00	9.10	6,944.87	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-39	06/10/15	2.00	15.20	ND	0.00	9.53	6,944.44	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-39	08/23/15	2.00	15.20	ND	0.00	9.46	6,944.51	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-39	11/09/15	2.00	15.20	ND	0.00	9.61	6,944.36	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-39	03/03/16	2.00	15.20	ND	0.00	8.72	6,945.25	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-39	06/08/16	2.00	15.20	ND	0.00	8.55	6,945.42	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-39	09/13/16	2.00	15.20	ND	0.00	8.62	6,945.35	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-39	11/09/16	2.00	15.20	ND	0.00	9.61	6,944.36	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-39	03/14/17	2.00	15.20	ND	0.00	6.66	6,947.31	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-39	06/08/17	2.00	15.20	ND	0.00	6.47	6,947.50	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-39	09/28/17	2.00	15.20	ND	0.00	7.54	6,946.43	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-39	11/28/17	2.00	15.18	ND	0.00	7.77	6,946.20	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-39	02/08/18	2.00	15.20	ND	0.00	8.40	6,945.57	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-39	04/25/18	2.00	15.13	ND	0.00	8.04	6,945.93	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-39	08/16/18	2.00	15.20	ND	0.00	8.52	6,945.45	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-39	11/19/18	2.00	15.18	ND	0.00	9.22	6,944.75	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-39	03/28/19	2.00	15.20	NM	0.00	#VALUE!	NA	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-39	06/05/19	2.00	15.20	ND	0.00	8.91	6,945.06	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-39	08/20/19	2.00	15.20	ND	0.00	9.26	6,944.71	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-39	11/04/19	2.00	15.18	ND	0.00	9.81	6,944.16	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-39	02/03/20	2.00	15.20	ND	0.00	10.32	6,943.65	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-39	06/26/20	2.00	15.00	ND	0.00	9.85	6,944.12	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-39	09/15/20	2.00	14.19	ND	0.00	9.80	6,944.17	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-39	11/10/20	2.00	14.19	ND	0.00	10.27	6,943.70	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-39	12/04/20	2.00	15.19	ND	0.00	10.37	6,943.70	NA	5 - 15	Chinle/Alluvium Interface
	MKTF-39	01/28/21	2.00	15.19	9.45	2.13	11.80	6,942.17	6,943.87	5 - 15	Chinle/Alluvium Interface
	MKTF-39	02/28/21	2.00	15.21	9.31	0.71	10.24	6,943.73	6,944.30	5 - 15	Chinle/Alluvium Interface
	MKTF-39	03/31/21	2.00	15.21	9.38	0.82	10.42	6,943.55	6,944.21	5 - 15	Chinle/Alluvium Interface
	MKTF-39	04/26/21	2.00	15.21	11.16	0.03	11.41	6,942.56	6,942.58	5 - 15	Chinle/Alluvium Interface
	MKTF-39	05/20/21	2.00	15.21	9.36	0.86	10.44	6,943.53	6,944.22	5 - 15	Chinle/Alluvium Interface
	MKTF-39	06/01/21	2.00	15.21	9.27	0.79	10.28	6,943.69	6,944.32	5 - 15	Chinle/Alluvium Interface
	MKTF-39	07/21/21	2.00	15.21	8.83	0.70	9.75	6,944.22	6,944.78	5 - 15	Chinle/Alluvium Interface
	MKTF-39	08/25/21	2.00	15.21	9.00	0.40	9.62	6,944.35	6,944.67	5 - 15	Chinle/Alluvium Interface
	MKTF-39	09/09/21	2.00	15.21	9.18	0.45	9.85	6,944.12	6,944.48	5 - 15	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-39	10/27/21	2.00	15.21	9.75	0.30	10.27	6,943.70	6,943.94	5 - 15	Chinle/Alluvium Interface
	MKTF-39	11/02/21	2.00	15.21	9.76	0.35	10.33	6,943.64	6,943.92	5 - 15	Chinle/Alluvium Interface
	MKTF-39	12/03/21	2.00	15.21	9.66	0.39	10.27	6,943.70	6,944.01	5 - 15	Chinle/Alluvium Interface
	MKTF-39	01/10/22	2.00	15.21	10.56	0.54	11.32	6,942.65	6,943.08	5 - 15	Chinle/Alluvium Interface
	MKTF-39	02/28/22	2.00	15.21	10.58	0.54	11.34	6,942.63	6,943.06	5 - 15	Chinle/Alluvium Interface
	MKTF-39	03/01/22	2.00	15.20	9.68	0.40	10.30	6,943.67	6,943.99	5 - 15	Chinle/Alluvium Interface
	MKTF-39	04/27/22	2.00	15.20	10.22	1.08	11.52	6,942.45	6,943.31	5 - 15	Chinle/Alluvium Interface
	MKTF-39	05/04/22	2.00	15.20	11.13	0.85	12.20	6,941.77	6,942.45	5 - 15	Chinle/Alluvium Interface
	MKTF-39	06/01/22	2.00	15.20	11.25	0.50	11.97	6,942.00	6,942.40	5 - 15	Chinle/Alluvium Interface
	MKTF-39	07/06/22	2.00	15.20	10.96	0.22	11.40	6,942.57	6,942.75	5 - 15	Chinle/Alluvium Interface
	MKTF-39	08/08/22	2.00	15.20	10.76	0.18	11.16	6,942.81	6,942.95	5 - 15	Chinle/Alluvium Interface
	MKTF-39	09/01/22	2.00	15.20	10.52	0.21	10.95	6,943.02	6,943.19	5 - 15	Chinle/Alluvium Interface
11/14/14	MKTF-39	10/03/22	2.00	15.20	10.45	0.15	10.82	6,943.15	6,943.27	5 - 15	Chinle/Alluvium Interface
	MKTF-39	11/03/22	2.00	15.20	10.43	0.14	10.79	6,943.18	6,943.29	5 - 15	Chinle/Alluvium Interface
	MKTF-39	12/06/22	2.00	15.20	10.52	0.15	10.89	6,943.08	6,943.20	5 - 15	Chinle/Alluvium Interface
11/13/14	MKTF-40	03/11/15	2.00	2.00	ND	0.00	11.62	6,879.73	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	06/10/15	2.00	23.64	ND	0.00	11.22	6,880.13	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	08/21/15	2.00	23.64	ND	0.00	10.85	6,880.50	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	11/04/15	2.00	23.64	ND	0.00	10.93	6,880.42	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	02/23/16	2.00	23.64	ND	0.00	10.90	6,880.45	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	06/09/16	2.00	23.64	ND	0.00	10.33	6,881.02	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	09/08/16	2.00	23.64	ND	0.00	10.54	6,880.81	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	11/04/16	2.00	23.64	ND	0.00	10.93	6,880.42	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	03/07/17	2.00	23.64	ND	0.00	10.16	6,881.19	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	06/05/17	2.00	23.64	ND	0.00	10.31	6,881.04	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	09/25/17	2.00	23.64	ND	0.00	10.30	6,881.05	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	11/21/17	2.00	23.62	ND	0.00	10.73	6,880.62	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	02/05/18	2.00	23.62	ND	0.00	10.20	6,881.15	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	04/25/18	2.00	23.53	ND	0.00	9.96	6,881.39	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	08/15/18	2.00	23.54	ND	0.00	9.76	6,881.59	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	11/14/18	2.00	23.62	ND	0.00	10.66	6,880.69	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	02/20/19	2.00	23.64	ND	0.00	9.81	6,881.54	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	05/06/19	2.00	23.64	ND	0.00	9.38	6,881.97	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	08/22/19	2.00	23.54	ND	0.00	9.17	6,882.18	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	10/22/19	2.00	23.62	ND	0.00	10.06	6,881.29	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	02/27/20	2.00	23.64	ND	0.00	10.25	6,881.10	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	06/26/20	2.00	23.64	ND	0.00	9.77	6,881.58	NA	5 - 20	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-40	09/15/20	2.00	23.66	ND	0.00	10.41	6,880.94	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	11/10/20	2.00	23.66	ND	0.00	10.73	6,880.62	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	12/04/20	2.00	23.67	ND	0.00	11.01	6,880.34	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	01/28/21	2.00	23.68	ND	NA	11.24	6,880.11	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	02/28/21	2.00	23.66	ND	NA	11.19	6,880.16	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	03/31/21	2.00	23.66	ND	NA	11.67	6,879.68	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	04/26/21	2.00	23.66	ND	NA	12.67	6,878.68	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	05/20/21	2.00	23.66	ND	NA	11.65	6,879.70	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	06/01/21	2.00	23.66	ND	NA	11.72	6,879.63	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	07/21/21	2.00	23.66	ND	NA	10.90	6,880.45	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	08/25/21	2.00	23.66	ND	NA	11.14	6,880.21	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	09/08/21	2.00	23.65	ND	NA	11.10	6,880.25	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	10/27/21	2.00	23.65	ND	NA	11.24	6,880.11	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	11/17/22	2.00	23.65	ND	NA	11.25	6,880.10	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	12/16/21	2.00	23.65	ND	NA	11.37	6,879.98	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	01/10/22	2.00	23.65	ND	NA	11.46	6,879.89	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	02/28/22	2.00	23.65	ND	NA	11.42	6,879.93	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	03/01/22	2.00	23.66	ND	NA	11.32	6,880.03	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	04/27/22	2.00	23.66	ND	NA	12.12	6,879.23	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	05/05/22	2.00	23.66	ND	NA	12.35	6,879.00	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	06/01/22	2.00	23.65	ND	NA	12.56	6,878.79	NA	5 - 20	Chinle/Alluvium Interface
11/13/14	MKTF-40	07/06/22	2.00	23.64	ND	NA	13.04	6,878.31	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	08/08/22	2.00	23.63	ND	NA	12.82	6,878.53	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	09/01/22	2.00	23.62	ND	NA	11.11	6,880.24	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	10/03/22	2.00	23.61	ND	NA	11.17	6,880.18	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	11/03/22	2.00	23.60	ND	NA	11.20	6,880.15	NA	5 - 20	Chinle/Alluvium Interface
	MKTF-40	12/08/22	2.00	23.59	ND	NA	11.23	6,880.12	NA	5 - 20	Chinle/Alluvium Interface
11/14/14	MKTF-41	03/12/15	2.00	40.10	ND	0.00	17.54	6,873.57	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	06/09/15	2.00	40.10	ND	0.00	17.24	6,873.87	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	08/21/15	2.00	40.10	ND	0.00	17.37	6,873.74	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	11/05/15	2.00	40.10	ND	0.00	17.24	6,873.87	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	02/24/16	2.00	40.10	ND	0.00	17.37	6,873.74	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	06/09/16	2.00	40.10	ND	0.00	17.12	6,873.99	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	09/09/16	2.00	40.10	ND	0.00	17.58	6,873.53	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	11/05/16	2.00	40.10	ND	0.00	17.24	6,873.87	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	03/07/17	2.00	40.10	ND	0.00	17.07	6,874.04	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	06/06/17	2.00	40.10	ND	0.00	15.96	6,875.15	NA	22 - 37	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-41	09/25/17	2.00	40.10	ND	0.00	17.72	6,873.39	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	11/27/17	2.00	39.71	ND	0.00	17.28	6,873.83	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	02/07/18	2.00	39.72	ND	0.00	17.70	6,873.41	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	04/25/18	2.00	39.91	ND	0.00	17.44	6,873.67	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	08/15/18	2.00	39.74	ND	0.00	17.73	6,873.38	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	11/14/18	2.00	39.71	ND	0.00	17.98	6,873.13	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	02/13/19	2.00	40.10	ND	0.00	17.57	6,873.54	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	05/07/19	2.00	40.10	ND	0.00	16.99	6,874.12	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	08/22/19	2.00	39.74	ND	0.00	17.02	6,874.09	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	10/23/19	2.00	39.71	ND	0.00	17.49	6,873.62	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	02/26/20	2.00	40.10	ND	0.00	17.62	6,873.49	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	06/29/20	2.00	40.10	ND	0.00	17.24	6,873.87	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	09/14/20	2.00	39.66	ND	0.00	18.19	6,872.92	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	11/10/20	2.00	39.66	ND	0.00	18.48	6,872.63	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	12/04/20	2.00	39.80	ND	0.00	18.37	6,872.74	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	01/28/21	2.00	39.94	ND	NA	18.68	6,872.43	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	02/27/21	2.00	39.85	ND	NA	18.58	6,872.53	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	03/31/21	2.00	39.85	ND	NA	18.88	6,872.23	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	04/26/21	2.00	39.85	ND	NA	18.88	6,872.23	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	05/20/21	2.00	39.85	ND	NA	18.87	6,872.24	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	06/01/21	2.00	39.85	ND	NA	18.61	6,872.50	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	07/21/21	2.00	39.85	ND	NA	19.28	6,871.83	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	08/25/21	2.00	39.85	ND	NA	19.22	6,871.89	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	09/09/21	2.00	39.85	ND	NA	19.27	6,871.84	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	10/27/21	2.00	39.85	ND	NA	19.10	6,872.01	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	11/17/21	2.00	39.85	ND	NA	18.95	6,872.16	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	12/03/21	2.00	39.80	ND	NA	18.82	6,872.29	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	01/10/22	2.00	39.80	ND	NA	19.27	6,871.84	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	02/28/22	2.00	39.80	ND	NA	19.52	6,871.59	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	03/01/22	2.00	39.76	ND	NA	18.90	6,872.21	NA	22 - 37	Chinle/Alluvium Interface
11/14/14	MKTF-41	04/27/22	2.00	39.76	ND	NA	18.78	6,872.33	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	05/05/22	2.00	39.76	ND	NA	18.79	6,872.32	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	06/01/22	2.00	39.77	ND	NA	18.85	6,872.26	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	07/06/22	2.00	39.78	ND	NA	18.42	6,872.69	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	08/08/22	2.00	39.79	ND	NA	19.59	6,871.52	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	09/01/22	2.00	39.80	ND	NA	18.57	6,872.54	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	10/03/22	2.00	39.81	ND	NA	18.58	6,872.53	NA	22 - 37	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-41	11/03/22	2.00	39.82	ND	NA	18.57	6,872.54	NA	22 - 37	Chinle/Alluvium Interface
	MKTF-41	12/29/22	2.00	39.83	ND	NA	18.65	6,872.46	NA	22 - 37	Chinle/Alluvium Interface
11/12/14	MKTF-42	03/11/15	2.00	33.15	ND	0.00	15.44	6,874.98	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	06/09/15	2.00	33.15	ND	0.00	15.07	6,875.35	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	08/21/15	2.00	33.15	ND	0.00	14.91	6,875.51	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	11/05/15	2.00	33.15	ND	0.00	14.73	6,875.69	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	02/24/16	2.00	33.15	ND	0.00	15.16	6,875.26	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	06/09/16	2.00	33.15	ND	0.00	14.77	6,875.65	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	09/09/16	2.00	33.15	ND	0.00	14.77	6,875.65	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	11/05/16	2.00	33.15	ND	0.00	14.73	6,875.69	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	03/07/17	2.00	33.15	ND	0.00	13.19	6,877.23	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	06/06/17	2.00	33.15	ND	0.00	14.59	6,875.83	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	09/25/17	2.00	33.15	ND	0.00	14.30	6,876.12	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	11/27/17	2.00	33.18	ND	0.00	14.28	6,876.14	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	02/07/18	2.00	32.90	ND	0.00	14.88	6,875.54	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	04/25/18	2.00	33.08	ND	0.00	14.60	6,875.82	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	08/15/18	2.00	33.20	ND	0.00	14.24	6,876.18	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	11/14/18	2.00	33.18	ND	0.00	14.41	6,876.01	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	02/13/19	2.00	33.15	ND	0.00	14.65	6,875.77	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	05/07/19	2.00	33.15	ND	0.00	14.15	6,876.27	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	08/22/19	2.00	33.20	ND	0.00	13.87	6,876.55	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	10/23/19	2.00	33.18	ND	0.00	13.99	6,876.43	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	02/26/20	2.00	33.15	ND	0.00	14.26	6,876.16	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	06/30/20	2.00	33.15	ND	0.00	13.72	6,876.70	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	09/14/20	2.00	33.10	ND	0.00	13.82	6,876.60	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	11/10/20	2.00	33.10	ND	0.00	12.77	6,877.65	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	12/04/20	2.00	32.95	ND	0.00	13.88	6,876.54	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	01/28/21	2.00	32.95	ND	NA	14.32	6,876.10	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	02/27/21	2.00	33.24	ND	NA	14.30	6,876.12	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	03/31/21	2.00	33.24	ND	NA	14.64	6,875.78	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	04/26/21	2.00	33.24	ND	NA	16.38	6,874.04	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	05/20/21	2.00	33.24	ND	NA	14.57	6,875.85	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	06/01/21	2.00	33.24	ND	NA	14.54	6,875.88	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	07/21/21	2.00	33.24	ND	NA	14.52	6,875.90	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	08/25/21	2.00	33.24	ND	NA	14.42	6,876.00	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	09/09/21	2.00	33.24	ND	NA	14.45	6,875.97	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	10/27/21	2.00	33.24	ND	NA	14.28	6,876.14	NA	10 - 30	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-42	11/17/21	2.00	33.24	ND	NA	14.36	6,876.06	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	12/03/22	2.00	33.20	ND	NA	14.27	6,876.15	NA	10 - 30	Chinle/Alluvium Interface
11/12/14	MKTF-42	01/10/22	2.00	33.20	ND	NA	14.68	6,875.74	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	02/28/22	2.00	33.20	ND	NA	14.67	6,875.75	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	03/01/22	2.00	33.17	ND	NA	14.67	6,875.75	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	04/27/22	2.00	33.17	ND	NA	14.60	6,875.82	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	05/05/22	2.00	33.17	ND	NA	14.59	6,875.83	NA	10 - 30	Chinle/Alluvium Interface
	MKTF-42	06/01/22	2.00	33.17	17.25	0.02	14.74	6,875.68	6875.70	10 - 30	Chinle/Alluvium Interface
	MKTF-42	07/06/22	2.00	33.17	18.03	0.02	15.52	6,874.90	6874.92	10 - 30	Chinle/Alluvium Interface
	MKTF-42	08/08/22	2.00	33.17	17.68	0.02	15.17	6,875.25	6875.27	10 - 30	Chinle/Alluvium Interface
	MKTF-42	09/01/22	2.00	33.17	16.77	0.03	14.27	6,876.15	6876.17	10 - 30	Chinle/Alluvium Interface
	MKTF-42	10/03/22	2.00	33.17	16.70	0.08	14.25	6,876.17	6876.23	10 - 30	Chinle/Alluvium Interface
	MKTF-42	11/03/22	2.00	33.17	16.60	0.11	14.18	6,876.24	6876.33	10 - 30	Chinle/Alluvium Interface
	MKTF-42	12/06/22	2.00	33.17	16.89	0.31	14.67	6,875.75	6876.00	10 - 30	Chinle/Alluvium Interface
11/11/14	MKTF-43	03/11/15	2.00	15.43	ND	0.00	2.42	6,871.70	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	06/10/15	2.00	15.43	ND	0.00	0.85	6,873.27	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	08/21/15	2.00	15.43	ND	0.00	1.02	6,873.10	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	11/05/15	2.00	15.43	ND	0.00	2.34	6,871.78	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	02/24/16	2.00	15.43	ND	0.00	2.22	6,871.90	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	06/09/16	2.00	15.43	ND	0.00	0.89	6,873.23	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	09/09/16	2.00	15.43	ND	0.00	1.20	6,872.92	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	11/05/16	2.00	15.43	ND	0.00	2.34	6,871.78	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	03/08/17	2.00	15.43	ND	0.00	2.56	6,871.56	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	06/06/17	2.00	15.43	ND	0.00	0.84	6,873.28	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	09/25/17	2.00	15.43	ND	0.00	1.36	6,872.76	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	11/27/17	2.00	15.38	ND	0.00	2.87	6,871.25	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	02/07/18	2.00	15.38	ND	0.00	3.65	6,870.47	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	04/25/18	2.00	15.30	ND	0.00	2.27	6,871.85	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	08/15/18	2.00	15.41	ND	0.00	-0.12	6,874.24	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	11/14/18	2.00	15.38	ND	0.00	2.64	6,871.48	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	02/13/19	2.00	15.43	ND	0.00	3.21	6,870.91	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	05/08/19	2.00	15.43	ND	0.00	1.19	6,872.93	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	08/22/19	2.00	15.41	ND	0.00	0.89	6,873.23	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	10/24/19	2.00	15.38	ND	0.00	1.56	6,872.56	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	02/26/20	2.00	15.43	ND	0.00	3.55	6,870.57	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	06/30/20	2.00	15.43	ND	0.00	2.72	6,871.40	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	09/14/20	2.00	16.22	ND	0.00	3.67	6,870.45	NA	2 - 12	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-43	11/10/20	2.00	16.22	ND	0.00	4.70	6,869.42	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	12/04/20	2.00	16.92	ND	0.00	5.34	6,868.78	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	01/28/21	2.00	16.92	ND	NA	5.91	6,868.21	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	02/27/21	2.00	16.95	ND	NA	5.89	6,868.23	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	03/31/21	2.00	16.95	ND	NA	5.71	6,868.41	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	04/26/21	2.00	16.95	ND	NA	5.88	6,868.24	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	05/20/21	2.00	16.95	ND	NA	5.69	6,868.43	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	06/01/21	2.00	16.95	ND	NA	5.83	6,868.29	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	07/21/21	2.00	16.95	ND	NA	5.20	6,868.92	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	08/25/21	2.00	16.95	ND	NA	4.85	6,869.27	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	09/09/21	2.00	16.95	ND	NA	5.17	6,868.95	NA	2 - 12	Chinle/Alluvium Interface
11/11/14	MKTF-43	10/27/21	2.00	16.95	ND	NA	5.52	6,868.60	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	11/24/21	2.00	16.95	ND	NA	5.77	6,868.35	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	12/03/21	2.00	16.95	ND	NA	6.17	6,867.95	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	01/10/22	2.00	16.95	ND	NA	6.10	6,868.02	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	02/28/22	2.00	16.95	ND	NA	6.09	6,868.03	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	03/01/22	2.00	16.93	ND	NA	6.26	6,867.86	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	04/27/22	2.00	16.93	ND	NA	5.68	6,868.44	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	05/05/22	2.00	16.93	ND	NA	5.73	6,868.39	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	06/01/22	2.00	16.95	ND	NA	5.26	6,868.86	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	07/06/22	2.00	16.97	ND	NA	5.44	6,868.68	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	08/08/22	2.00	16.99	ND	NA	5.57	6,868.55	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	09/01/22	2.00	17.01	ND	NA	5.37	6,868.75	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	10/03/22	2.00	17.03	ND	NA	5.39	6,868.73	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	11/03/22	2.00	17.05	ND	NA	5.43	6,868.69	NA	2 - 12	Chinle/Alluvium Interface
	MKTF-43	12/22/22	2.00	17.07	ND	NA	5.32	6,868.80	NA	2 - 12	Chinle/Alluvium Interface
11/11/14	MKTF-44	03/12/15	2.00	51.15	ND	0.00	35.90	6,831.51	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	06/10/15	2.00	51.15	ND	0.00	27.01	6,840.40	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	08/17/15	2.00	51.15	ND	0.00	28.69	6,838.72	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	11/09/15	2.00	51.15	ND	0.00	30.78	6,836.63	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	02/24/16	2.00	51.15	ND	0.00	26.20	6,841.21	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	06/09/16	2.00	51.15	ND	0.00	25.29	6,842.12	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	09/08/16	2.00	51.15	ND	0.00	28.80	6,838.61	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	11/09/16	2.00	51.15	ND	0.00	30.78	6,836.63	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	03/08/17	2.00	51.15	ND	0.00	22.85	6,844.56	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	06/05/17	2.00	51.15	ND	0.00	30.36	6,837.05	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	09/25/17	2.00	51.15	ND	0.00	27.64	6,839.77	NA	38 - 48	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-44	11/27/17	2.00	51.16	ND	0.00	31.16	6,836.25	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	02/07/18	2.00	51.16	ND	0.00	35.02	6,832.39	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	04/25/18	2.00	51.08	ND	0.00	34.18	6,833.23	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	08/15/18	2.00	51.20	ND	0.00	33.16	6,834.25	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	11/14/18	2.00	51.16	ND	0.00	23.88	6,843.53	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	02/13/19	2.00	51.15	ND	0.00	30.85	6,836.56	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	05/08/19	2.00	51.15	ND	0.00	31.66	6,835.75	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	08/22/19	2.00	51.20	ND	0.00	28.42	6,838.99	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	10/24/19	2.00	51.16	ND	0.00	36.00	6,831.41	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	03/04/20	2.00	51.15	ND	0.00	27.80	6,839.61	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	06/26/20	2.00	51.15	ND	0.00	30.54	6,836.87	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	09/14/20	2.00	51.95	ND	0.00	25.46	6,841.95	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	12/04/20	2.00	51.39	ND	0.00	37.05	6,830.36	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	02/28/21	2.00	51.50	ND	0.00	35.96	6,831.45	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	03/31/21	2.00	51.50	ND	0.00	42.74	6,824.67	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	04/26/21	2.00	51.50	ND	0.00	42.79	6,824.62	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	05/20/21	2.00	51.50	ND	0.00	42.57	6,824.84	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	06/01/21	2.00	51.50	ND	0.00	35.57	6,831.84	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	09/09/21	2.00	51.50	ND	0.00	32.71	6,834.70	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	12/22/21	2.00	51.25	ND	0.00	36.06	6,831.35	NA	38 - 48	Chinle/Alluvium Interface
11/11/14	MKTF-44	03/01/22	2.00	51.25	ND	0.00	38.79	6,828.62	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	06/01/22	2.00	51.20	ND	0.00	33.24	6,834.17	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	07/06/22	2.00	51.15	ND	0.00	34.62	6,832.79	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	08/08/22	2.00	51.10	ND	0.00	33.67	6,833.74	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	09/01/22	2.00	51.05	ND	0.00	33.86	6,833.55	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	10/03/22	2.00	51.00	ND	0.00	33.89	6,833.52	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	11/03/22	2.00	50.95	ND	0.00	33.98	6,833.43	NA	38 - 48	Chinle/Alluvium Interface
	MKTF-44	12/22/22	2.00	50.90	ND	0.00	33.98	6,833.43	NA	38 - 48	Chinle/Alluvium Interface
Pre-existing	MKTF-45	02/10/15	4.00	30.24	13.58	2.94	15.56	6,933.07	6,935.42	Unknown	Chinle/Alluvium Interface
	MKTF-45	03/17/15	4.00	30.24	13.14	1.80	13.98	6,934.65	6,936.09	Unknown	Chinle/Alluvium Interface
	MKTF-45	06/08/15	4.00	30.24	13.20	3.55	15.79	6,932.84	6,935.68	Unknown	Chinle/Alluvium Interface
	MKTF-45	08/18/15	4.00	30.24	13.50	0.11	12.65	6,935.98	6,936.07	Unknown	Chinle/Alluvium Interface
	MKTF-45	11/03/15	4.00	30.24	13.70	0.32	13.06	6,935.57	6,935.83	Unknown	Chinle/Alluvium Interface
	MKTF-45	03/17/16	4.00	30.24	13.14	1.80	13.98	6,934.65	6,936.09	Unknown	Chinle/Alluvium Interface
	MKTF-45	06/10/16	4.00	30.24	12.48	0.32	11.84	6,936.79	6,937.05	Unknown	Chinle/Alluvium Interface
	MKTF-45	09/13/16	4.00	30.24	11.95	0.45	11.44	6,937.19	6,937.55	Unknown	Chinle/Alluvium Interface
	MKTF-45	11/03/16	4.00	30.24	13.70	0.32	13.06	6,935.57	6,935.83	Unknown	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-45	03/01/17	4.00	30.24	10.32	0.31	9.67	6,938.96	6,939.21	Unknown	Chinle/Alluvium Interface
	MKTF-45	06/14/17	4.00	30.24	11.50	0.50	11.04	6,937.59	6,937.99	Unknown	Chinle/Alluvium Interface
	MKTF-45	10/03/17	4.00	30.24	11.48	0.53	11.05	6,937.58	6,938.00	Unknown	Chinle/Alluvium Interface
	MKTF-45	11/30/17	4.00	30.24	12.76	0.47	12.27	6,936.36	6,936.74	Unknown	Chinle/Alluvium Interface
	MKTF-45	02/15/18	4.00	30.24	13.09	0.15	12.28	6,936.35	6,936.47	Unknown	Chinle/Alluvium Interface
	MKTF-45	04/26/18	4.00	30.28	12.87	0.43	12.34	6,936.29	6,936.63	Unknown	Chinle/Alluvium Interface
	MKTF-45	08/16/18	4.00	30.33	13.15	0.43	12.62	6,936.01	6,936.35	Unknown	Chinle/Alluvium Interface
	MKTF-45	11/27/18	4.00	30.24	13.60	0.55	13.19	6,935.44	6,935.88	Unknown	Chinle/Alluvium Interface
	MKTF-45	03/26/19	4.00	30.24	12.00	0.50	11.54	6,937.09	6,937.49	Unknown	Chinle/Alluvium Interface
	MKTF-45	05/14/19	4.00	30.24	12.43	0.59	12.06	6,936.57	6,937.04	Unknown	Chinle/Alluvium Interface
	MKTF-45	08/19/19	4.00	30.33	14.02	0.46	13.52	6,935.11	6,935.48	Unknown	Chinle/Alluvium Interface
	MKTF-45	10/28/19	4.00	30.24	11.97	1.03	12.04	6,936.59	6,937.41	Unknown	Chinle/Alluvium Interface
	MKTF-45	10/29/19	4.00	30.24	11.38	2.37	12.79	6,935.84	6,937.74	Unknown	Chinle/Alluvium Interface
	MKTF-45	10/31/18	4.00	30.24	10.66	6.24	15.94	6,932.69	6,937.68	Unknown	Chinle/Alluvium Interface
	MKTF-45	11/06/19	4.00	30.24	9.57	12.95	21.56	6,927.07	6,937.43	Unknown	Chinle/Alluvium Interface
	MKTF-45	11/07/19	4.00	30.24	9.00	13.25	21.29	6,927.34	6,937.94	Unknown	Chinle/Alluvium Interface
	MKTF-45	11/11/19	4.00	30.24	8.75	14.85	22.64	6,925.99	6,937.87	Unknown	Chinle/Alluvium Interface
	MKTF-45	11/12/19	4.00	30.24	9.62	14.30	22.96	6,925.67	6,937.11	Unknown	Chinle/Alluvium Interface
	MKTF-45	11/13/19	4.00	30.24	9.70	16.23	24.97	6,923.66	6,936.64	Unknown	Chinle/Alluvium Interface
	MKTF-45	11/14/19	4.00	30.24	10.06	15.23	24.33	6,924.30	6,936.48	Unknown	Chinle/Alluvium Interface
	MKTF-45	11/15/19	4.00	30.24	10.28	14.29	23.61	6,925.02	6,936.45	Unknown	Chinle/Alluvium Interface
	MKTF-45	11/19/19	4.00	30.24	10.84	11.91	21.79	6,926.84	6,936.37	Unknown	Chinle/Alluvium Interface
	MKTF-45	11/21/19	4.00	30.24	11.00	10.90	20.94	6,927.69	6,936.41	Unknown	Chinle/Alluvium Interface
	MKTF-45	12/02/19	4.00	30.24	12.38	6.57	17.99	6,930.64	6,935.90	Unknown	Chinle/Alluvium Interface
	MKTF-45	02/03/20	4.00	30.24	9.60	9.02	17.66	6,930.97	6938.19	Unknown	Chinle/Alluvium Interface
	MKTF-45	06/30/20	4.00	30.24	11.08	8.00	18.12	6,930.51	6936.91	Unknown	Chinle/Alluvium Interface
	MKTF-45	09/14/20	4.00	37.45	13.14	5.29	17.47	6,931.16	6935.39	Unknown	Chinle/Alluvium Interface
	MKTF-45	11/10/20	4.00	37.45	12.94	1.82	13.80	6,934.83	6936.29	Unknown	Chinle/Alluvium Interface
	MKTF-45	12/04/20	4.00	30.45	12.66	1.85	13.55	6,935.08	6936.56	Unknown	Chinle/Alluvium Interface
Pre-existing	MKTF-45	01/28/21	4.00	30.45	16.00	0.13	15.17	6,933.46	6933.56	Unknown	Chinle/Alluvium Interface
	MKTF-45	02/27/21	4.00	30.50	13.55	0.01	12.60	6,936.03	6936.04	Unknown	Chinle/Alluvium Interface
	MKTF-45	03/31/21	4.00	30.50	15.55	0.02	14.61	6,934.02	6934.04	Unknown	Chinle/Alluvium Interface
	MKTF-45	04/26/21	4.00	30.50	16.34	0.03	15.41	6,933.22	6933.24	Unknown	Chinle/Alluvium Interface
	MKTF-45	05/20/21	4.00	30.50	15.50	0.51	15.05	6,933.58	6933.99	Unknown	Chinle/Alluvium Interface
	MKTF-45	06/01/21	4.00	30.50	16.03	0.02	15.09	6,933.54	6933.56	Unknown	Chinle/Alluvium Interface
	MKTF-45	07/07/21	4.00	30.50	ND	NA	13.47	6,935.16	NA	Unknown	Chinle/Alluvium Interface
	MKTF-45	08/02/21	4.00	30.50	14.45	0.02	13.51	6,935.12	6935.14	Unknown	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-45	09/07/21	4.00	30.50	14.43	0.02	13.49	6,935.14	6935.16	Unknown	Chinle/Alluvium Interface
	MKTF-45	10/27/21	4.00	30.50	ND	NA	13.50	6,935.13	NA	Unknown	Chinle/Alluvium Interface
	MKTF-45	11/02/21	4.00	30.50	ND	NA	13.46	6,935.17	NA	Unknown	Chinle/Alluvium Interface
	MKTF-45	12/09/21	4.00	30.50	14.31	0.04	13.39	6,935.24	6935.27	Unknown	Chinle/Alluvium Interface
	MKTF-45	01/10/22	4.00	30.50	ND	NA	13.74	6,934.89	NA	Unknown	Chinle/Alluvium Interface
	MKTF-45	02/28/22	4.00	30.50	ND	NA	13.59	6,935.04	NA	Unknown	Chinle/Alluvium Interface
	MKTF-45	03/02/22	4.00	30.50	14.28	0.05	13.37	6,935.26	6935.30	Unknown	Chinle/Alluvium Interface
	MKTF-45	04/27/22	4.00	30.50	15.08	0.03	14.15	6,934.48	6934.50	Unknown	Chinle/Alluvium Interface
	MKTF-45	05/02/22	4.00	30.50	ND	NA	14.28	6,934.35	NA	Unknown	Chinle/Alluvium Interface
	MKTF-45	06/01/22	4.00	30.50	15.49	0.14	14.67	6,933.96	6934.07	Unknown	Chinle/Alluvium Interface
	MKTF-45	07/06/22	4.00	30.50	15.39	0.18	14.61	6,934.02	6934.16	Unknown	Chinle/Alluvium Interface
	MKTF-45	08/08/22	4.00	30.50	15.19	0.17	14.40	6,934.23	6934.37	Unknown	Chinle/Alluvium Interface
	MKTF-45	09/01/22	4.00	30.50	14.98	0.11	14.13	6,934.50	6934.59	Unknown	Chinle/Alluvium Interface
	MKTF-45	10/03/22	4.00	30.50	15.03	0.02	14.09	6,934.54	6934.56	Unknown	Chinle/Alluvium Interface
	MKTF-45	11/03/22	4.00	30.50	15.11	0.02	14.17	6,934.46	6934.48	Unknown	Chinle/Alluvium Interface
	MKTF-45	12/09/22	4.00	30.50	15.01	0.10	14.15	6,934.48	6934.56	Unknown	Chinle/Alluvium Interface
10/12/19	MKTF-46	10/29/19	2.00	21.29	ND	0.00	7.41	6,947.32	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	11/12/19	2.00	21.29	ND	0.00	7.59	6,947.14	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	12/02/19	2.00	21.29	ND	0.00	7.83	6,946.90	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	03/05/20	2.00	18.00	ND	0.00	8.06	6,946.67	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	06/30/20	2.00	18.00	ND	0.00	8.21	6,946.52	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	09/14/20	2.00	25.29	ND	0.00	7.31	6,947.42	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	11/10/20	2.00	25.29	ND	0.00	7.70	6,947.03	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	12/04/20	2.00	21.30	ND	0.00	7.90	6,946.83	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	01/28/21	2.00	21.30	ND	NA	8.45	6,946.28	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	02/27/21	2.00	21.30	ND	NA	7.95	6,946.78	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	03/31/21	2.00	21.30	ND	NA	8.03	6,946.70	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	04/26/21	2.00	21.30	ND	NA	8.26	6,946.47	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	05/20/21	2.00	21.30	ND	NA	8.16	6,946.57	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	06/01/21	2.00	21.30	ND	NA	8.22	6,946.51	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	07/21/21	2.00	21.30	ND	NA	8.96	6,945.77	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	08/25/21	2.00	21.30	ND	NA	9.13	6,945.60	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	09/09/21	2.00	21.30	ND	NA	9.29	6,945.44	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	10/27/21	2.00	21.30	ND	NA	9.19	6,945.54	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	11/17/21	2.00	21.30	ND	NA	9.68	6,945.05	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	12/03/21	2.00	21.30	ND	NA	9.91	6,944.82	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	01/10/22	2.00	21.30	ND	NA	10.29	6,944.44	NA	3 - 18	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-46	02/28/22	2.00	21.30	ND	NA	10.26	6,944.47	NA	3 - 18	Chinle/Alluvium Interface
10/12/19	MKTF-46	03/01/22	2.00	21.30	ND	NA	9.93	6,944.80	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	04/27/22	2.00	21.30	ND	NA	10.72	6,944.01	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	05/05/22	2.00	21.30	ND	NA	10.74	6,943.99	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	06/01/22	2.00	21.28	ND	NA	11.14	6,943.59	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	07/06/22	2.00	21.26	ND	NA	10.89	6,943.84	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	08/08/22	2.00	21.24	ND	NA	11.01	6,943.72	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	09/01/22	2.00	21.22	ND	NA	10.14	6,944.59	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	10/03/22	2.00	21.20	ND	NA	10.22	6,944.51	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	11/03/22	2.00	21.18	ND	NA	10.25	6,944.48	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-46	12/06/22	2.00	21.16	ND	NA	9.33	6,945.40	NA	3 - 18	Chinle/Alluvium Interface
10/14/19	MKTF-47	12/02/19	2.00	14.30	ND	0.00	10.20	6,949.31	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-47	03/05/20	2.00	14.00	ND	0.00	10.31	6,949.20	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-47	06/29/20	2.00	14.00	ND	0.00	9.92	6,949.59	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-47	09/15/20	2.00	14.31	8.53	0.01	8.96	6,950.55	6950.56	4 - 14	Chinle/Alluvium Interface
	MKTF-47	11/10/20	2.00	14.31	ND	0.00	9.75	6,949.76	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-47	12/04/20	2.00	14.31	9.58	0.01	10.01	6,949.50	6949.51	4 - 14	Chinle/Alluvium Interface
	MKTF-47	01/28/21	2.00	14.31	ND	NA	9.76	6,949.75	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-47	02/27/21	2.00	14.30	ND	NA	9.57	6,949.94	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-47	03/31/21	2.00	14.30	ND	NA	DRY	NA	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-47	04/26/21	2.00	14.30	ND	NA	DRY	NA	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-47	05/20/21	2.00	14.30	ND	NA	DRY	NA	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-47	06/01/21	2.00	14.30	ND	NA	DRY	NA	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-47	07/21/21	2.00	14.30	ND	NA	DRY	NA	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-47	08/25/21	2.00	14.30	ND	NA	DRY	NA	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-47	09/09/21	2.00	14.30	ND	NA	DRY	NA	NA	4 - 14	Chinle/Alluvium Interface
	MKTF-47	10/27/21	2.00	14.30	10.55	0.05	11.02	6,948.49	6948.53	4 - 14	Chinle/Alluvium Interface
	MKTF-47	11/17/21	2.00	14.30	10.68	0.04	11.14	6,948.37	6948.40	4 - 14	Chinle/Alluvium Interface
	MKTF-47	12/03/21	2.00	14.30	10.97	0.04	11.43	6,948.08	6948.11	4 - 14	Chinle/Alluvium Interface
	MKTF-47	01/10/22	2.00	14.30	10.95	0.05	11.42	6,948.09	6948.13	4 - 14	Chinle/Alluvium Interface
	MKTF-47	02/28/22	2.00	14.30	11.00	0.05	11.47	6,948.04	6948.08	4 - 14	Chinle/Alluvium Interface
	MKTF-47	03/02/22	2.00	14.30	11.00	0.05	11.47	6,948.04	6948.08	4 - 14	Chinle/Alluvium Interface
	MKTF-47	04/27/22	2.00	14.30	11.24	0.04	11.70	6,947.81	6947.84	4 - 14	Chinle/Alluvium Interface
	MKTF-47	05/05/22	2.00	14.30	11.22	0.02	11.66	6,947.85	6947.87	4 - 14	Chinle/Alluvium Interface
	MKTF-47	06/01/22	2.00	14.35	10.95	0.06	11.43	6,948.08	6948.13	4 - 14	Chinle/Alluvium Interface
	MKTF-47	07/06/22	2.00	14.40	10.68	0.07	11.17	6,948.34	6948.40	4 - 14	Chinle/Alluvium Interface
	MKTF-47	08/08/22	2.00	14.45	10.70	0.07	11.19	6,948.32	6948.38	4 - 14	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-47	09/01/22	2.00	14.50	11.15	0.10	11.67	6,947.84	6947.92	4 - 14	Chinle/Alluvium Interface
	MKTF-47	10/03/22	2.00	14.55	11.18	0.11	11.71	6,947.80	6947.89	4 - 14	Chinle/Alluvium Interface
	MKTF-47	11/03/22	2.00	14.60	11.20	0.09	11.71	6,947.80	6947.87	4 - 14	Chinle/Alluvium Interface
	MKTF-47	12/06/22	2.00	14.65	11.16	0.09	11.67	6,947.84	6947.91	4 - 14	Chinle/Alluvium Interface
10/14/19	MKTF-48	12/02/19	2.00	20.92	ND	0.00	9.36	6,949.88	NA	2 - 17	Chinle/Alluvium Interface
	MKTF-48	03/03/20	2.00	18.00	12.66	0.16	10.33	6,948.91	6949.04	2 - 17	Chinle/Alluvium Interface
	MKTF-48	06/29/20	2.00	18.00	ND	0.00	9.09	6,950.15	NA	2 - 17	Chinle/Alluvium Interface
	MKTF-48	09/15/20	2.00	19.91	11.85	0.01	9.37	6,949.87	6949.88	2 - 17	Chinle/Alluvium Interface
	MKTF-48	11/10/20	2.00	19.91	12.40	0.11	10.02	6,949.22	6949.31	2 - 17	Chinle/Alluvium Interface
	MKTF-48	12/04/20	2.00	20.94	12.77	0.33	10.61	6,948.63	6948.89	2 - 17	Chinle/Alluvium Interface
10/14/19	MKTF-48	01/28/21	2.00	21.97	12.19	0.01	9.71	6,949.53	6949.54	2 - 17	Chinle/Alluvium Interface
	MKTF-48	02/27/21	2.00	20.95	12.19	0.06	9.76	6,949.48	6949.53	2 - 17	Chinle/Alluvium Interface
	MKTF-48	03/31/21	2.00	20.95	12.41	0.24	10.16	6,949.08	6949.27	2 - 17	Chinle/Alluvium Interface
	MKTF-48	04/26/21	2.00	20.95	13.71	0.24	11.46	6,947.78	6947.97	2 - 17	Chinle/Alluvium Interface
	MKTF-48	05/20/21	2.00	20.95	12.38	0.14	10.03	6,949.21	6949.32	2 - 17	Chinle/Alluvium Interface
	MKTF-48	06/01/21	2.00	20.95	12.64	0.24	10.39	6,948.85	6949.04	2 - 17	Chinle/Alluvium Interface
	MKTF-48	07/21/21	2.00	20.95	13.00	0.21	10.72	6,948.52	6948.69	2 - 17	Chinle/Alluvium Interface
	MKTF-48	08/25/21	2.00	20.95	13.35	0.25	11.11	6,948.13	6948.33	2 - 17	Chinle/Alluvium Interface
	MKTF-48	09/09/21	2.00	20.95	13.32	0.22	11.05	6,948.19	6948.37	2 - 17	Chinle/Alluvium Interface
	MKTF-48	10/27/21	2.00	20.95	13.53	0.37	11.41	6,947.83	6948.13	2 - 17	Chinle/Alluvium Interface
	MKTF-48	11/17/21	2.00	20.95	13.61	0.57	11.69	6,947.55	6948.01	2 - 17	Chinle/Alluvium Interface
	MKTF-48	12/03/21	2.00	20.95	14.34	0.54	12.39	6,946.85	6947.28	2 - 17	Chinle/Alluvium Interface
	MKTF-48	01/10/22	2.00	20.95	14.56	0.29	12.36	6,946.88	6947.11	2 - 17	Chinle/Alluvium Interface
	MKTF-48	02/28/22	2.00	20.95	14.61	0.20	12.32	6,946.92	6947.08	2 - 17	Chinle/Alluvium Interface
	MKTF-48	03/02/22	2.00	21.00	14.38	0.45	12.34	6,946.90	6947.26	2 - 17	Chinle/Alluvium Interface
	MKTF-48	04/27/22	2.00	21.00	10.38	1.45	9.34	6,949.90	6951.06	2 - 17	Chinle/Alluvium Interface
	MKTF-48	05/05/22	2.00	21.00	10.38	1.46	9.35	6,949.89	6951.06	2 - 17	Chinle/Alluvium Interface
	MKTF-48	06/01/22	2.00	21.00	10.35	1.45	9.31	6,949.93	6951.09	2 - 17	Chinle/Alluvium Interface
	MKTF-48	07/06/22	2.00	21.00	11.11	1.58	10.20	6,949.04	6950.30	2 - 17	Chinle/Alluvium Interface
	MKTF-48	08/08/22	2.00	21.00	11.20	1.52	10.23	6,949.01	6950.23	2 - 17	Chinle/Alluvium Interface
	MKTF-48	09/01/22	2.00	21.00	10.51	1.42	9.44	6,949.80	6950.94	2 - 17	Chinle/Alluvium Interface
	MKTF-48	10/03/22	2.00	21.00	13.62	0.06	11.19	6,948.05	6948.10	2 - 17	Chinle/Alluvium Interface
	MKTF-48	11/03/22	2.00	21.00	13.68	0.06	11.25	6,947.99	6948.04	2 - 17	Chinle/Alluvium Interface
	MKTF-48	12/06/22	2.00	21.00	14.00	0.04	11.55	6,947.69	6947.72	2 - 17	Chinle/Alluvium Interface
10/15/19	MKTF-49	12/03/19	2.00	24.90	ND	0.00	17.14	6,926.86	NA	5 - 25	Chinle/Alluvium Interface
	MKTF-49	03/04/20	2.00	28.00	ND	0.00	17.51	6,926.49	NA	5 - 25	Chinle/Alluvium Interface
	MKTF-49	06/30/20	2.00	28.00	ND	0.00	17.89	6,926.11	NA	5 - 25	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-49	09/15/20	2.00	24.96	ND	0.00	17.57	6,926.43	NA	5 - 25	Chinle/Alluvium Interface
	MKTF-49	11/10/20	2.00	24.96	ND	0.00	17.99	6,926.01	NA	5 - 25	Chinle/Alluvium Interface
	MKTF-49	12/04/20	2.00	24.97	ND	0.00	18.05	6,925.95	NA	5 - 25	Chinle/Alluvium Interface
	MKTF-49	01/28/21	2.00	24.98	ND	NA	18.29	6,925.71	NA	5 - 25	Chinle/Alluvium Interface
	MKTF-49	02/28/21	2.00	25.02	ND	NA	18.29	6,925.71	NA	5 - 25	Chinle/Alluvium Interface
	MKTF-49	03/31/21	2.00	25.02	ND	NA	18.39	6,925.61	NA	5 - 25	Chinle/Alluvium Interface
	MKTF-49	04/26/21	2.00	25.02	ND	NA	17.35	6,926.65	NA	5 - 25	Chinle/Alluvium Interface
	MKTF-49	05/20/21	2.00	25.02	ND	NA	18.45	6,925.55	NA	5 - 25	Chinle/Alluvium Interface
	MKTF-49	06/01/21	2.00	25.02	ND	NA	18.16	6,925.84	NA	5 - 25	Chinle/Alluvium Interface
	MKTF-49	06/01/21	2.00	25.02	ND	NA	18.16	6,925.84	NA	5 - 25	Chinle/Alluvium Interface
	MKTF-49	06/16/21	2.00	25.02	21.40	0.68	19.32	6,924.68	6925.22	5 - 25	Chinle/Alluvium Interface
	MKTF-49	07/07/21	2.00	25.02	20.75	0.69	18.68	6,925.32	6925.87	5 - 25	Chinle/Alluvium Interface
	MKTF-49	08/04/21	2.00	25.02	21.12	1.00	19.36	6,924.64	6925.44	5 - 25	Chinle/Alluvium Interface
	MKTF-49	09/09/21	2.00	25.02	20.77	1.06	19.07	6,924.93	6925.78	5 - 25	Chinle/Alluvium Interface
	MKTF-49	10/27/21	2.00	25.02	20.80	0.42	18.46	6,925.54	6925.88	5 - 25	Chinle/Alluvium Interface
	MKTF-49	11/02/21	2.00	25.02	20.76	0.45	18.45	6,925.55	6925.91	5 - 25	Chinle/Alluvium Interface
	MKTF-49	12/03/21	2.00	25.02	20.50	0.29	18.03	6,925.97	6926.20	5 - 25	Chinle/Alluvium Interface
	MKTF-49	01/10/22	2.00	25.02	21.10	0.48	18.82	6,925.18	6925.56	5 - 25	Chinle/Alluvium Interface
	MKTF-49	02/28/22	2.00	25.02	21.00	0.66	18.90	6,925.10	6925.63	5 - 25	Chinle/Alluvium Interface
10/15/19	MKTF-49	03/02/22	2.00	25.00	20.46	0.18	17.88	6,926.12	6926.26	5 - 25	Chinle/Alluvium Interface
	MKTF-49	04/27/22	2.00	25.00	21.55	0.26	19.05	6,924.95	6925.16	5 - 25	Chinle/Alluvium Interface
	MKTF-49	05/04/22	2.00	25.00	21.22	2.00	20.46	6,923.54	6925.14	5 - 25	Chinle/Alluvium Interface
	MKTF-49	06/01/22	2.00	25.00	21.45	1.20	19.89	6,924.11	6925.07	5 - 25	Chinle/Alluvium Interface
	MKTF-49	07/06/22	2.00	25.00	21.45	2.03	20.72	6,923.28	6924.90	5 - 25	Chinle/Alluvium Interface
	MKTF-49	08/08/22	2.00	25.00	21.29	1.57	20.10	6,923.90	6925.16	5 - 25	Chinle/Alluvium Interface
10/15/19	MKTF-49	09/01/22	2.00	25.00	21.20	1.74	20.18	6,923.82	6925.21	5 - 25	Chinle/Alluvium Interface
	MKTF-49	10/03/22	2.00	25.00	21.38	0.60	19.22	6,924.78	6925.26	5 - 25	Chinle/Alluvium Interface
	MKTF-49	11/03/22	2.00	25.00	21.40	0.64	19.28	6,924.72	6925.23	5 - 25	Chinle/Alluvium Interface
	MKTF-49	12/06/22	2.00	25.00	21.34	1.14	19.72	6,924.28	6925.19	5 - 25	Chinle/Alluvium Interface
10/16/19	MKTF-50	12/03/19	2.00	21.65	ND	0.00	12.47	6,927.21	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-50	03/04/20	2.00	26.00	ND	0.00	12.73	6,926.95	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-50	06/30/20	2.00	26.00	ND	0.00	12.86	6,926.82	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-50	09/15/20	2.00	22.64	15.36	0.01	12.23	6,927.45	6927.46	3 - 18	Chinle/Alluvium Interface
	MKTF-50	11/10/20	2.00	22.64	ND	0.00	12.89	6,926.79	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-50	12/04/20	2.00	21.63	ND	0.00	13.03	6,926.65	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-50	01/28/21	2.00	20.62	ND	NA	13.29	6,926.39	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-50	02/28/21	2.00	21.70	ND	NA	13.24	6,926.44	NA	3 - 18	Chinle/Alluvium Interface

APPENDIX B. HISTORICAL FLUID LEVEL MEASUREMENTS FOR WELLS MKTF-1 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Total Well Depth (ft)	Depth to SPH (ft) TOC	SPH Column Thickness (ft)	Depth to Water (ft-bgs)	Ground-water Elevation (ft)	Corrected Water Table ¹ Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
	MKTF-50	03/31/21	2.00	21.70	ND	NA	13.34	6,926.34	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-50	04/26/21	2.00	21.70	ND	NA	13.05	6,926.63	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-50	05/20/21	2.00	21.70	ND	NA	13.33	6,926.35	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-50	06/01/21	2.00	21.70	ND	NA	13.52	6,926.16	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-50	06/16/21	2.00	21.70	16.68	0.17	13.71	6,925.97	6926.11	3 - 18	Chinle/Alluvium Interface
	MKTF-50	07/21/21	2.00	21.70	14.75	0.45	12.06	6,927.62	6927.98	3 - 18	Chinle/Alluvium Interface
	MKTF-50	08/04/21	2.00	21.70	15.45	0.30	12.61	6,927.07	6927.31	3 - 18	Chinle/Alluvium Interface
	MKTF-50	09/09/21	2.00	21.70	15.40	0.28	12.54	6,927.14	6927.36	3 - 18	Chinle/Alluvium Interface
	MKTF-50	10/27/21	2.00	21.70	15.48	0.31	12.65	6,927.03	6927.28	3 - 18	Chinle/Alluvium Interface
	MKTF-50	11/02/21	2.00	21.70	15.55	0.27	12.68	6,927.00	6927.22	3 - 18	Chinle/Alluvium Interface
	MKTF-50	12/09/21	2.00	21.70	15.44	0.26	12.56	6,927.12	6927.33	3 - 18	Chinle/Alluvium Interface
	MKTF-50	01/10/22	2.00	21.70	15.50	0.18	12.54	6,927.14	6927.28	3 - 18	Chinle/Alluvium Interface
	MKTF-50	02/28/22	2.00	21.70	15.55	0.16	12.57	6,927.11	6927.24	3 - 18	Chinle/Alluvium Interface
	MKTF-50	03/02/22	2.00	21.71	15.41	0.30	12.57	6,927.11	6927.35	3 - 18	Chinle/Alluvium Interface
	MKTF-50	04/27/22	2.00	21.71	15.80	0.23	12.89	6,926.79	6926.97	3 - 18	Chinle/Alluvium Interface
	MKTF-50	05/05/22	2.00	21.71	15.82	0.20	12.88	6,926.80	6926.96	3 - 18	Chinle/Alluvium Interface
	MKTF-50	06/01/22	2.00	21.71	16.01	0.31	13.18	6,926.50	6926.75	3 - 18	Chinle/Alluvium Interface
	MKTF-50	07/06/22	2.00	21.71	15.80	0.23	12.89	6,926.79	6926.97	3 - 18	Chinle/Alluvium Interface
	MKTF-50	08/08/22	2.00	21.71	15.96	0.30	13.12	6,926.56	6926.80	3 - 18	Chinle/Alluvium Interface
	MKTF-50	09/01/22	2.00	21.71	15.90	0.29	13.05	6,926.63	6926.86	3 - 18	Chinle/Alluvium Interface
	MKTF-50	10/03/22	2.00	21.71	15.82	0.28	12.96	6,926.72	6926.94	3 - 18	Chinle/Alluvium Interface
	MKTF-50	11/03/22	2.00	21.71	15.90	0.25	13.01	6,926.67	6926.87	3 - 18	Chinle/Alluvium Interface
	MKTF-50	12/06/22	2.00	21.71	NM	NM	12.89	6,926.79	NA	3 - 18	Chinle/Alluvium Interface
	MKTF-50	01/11/23	2.00	21.71	16.49	0.91	14.26	6,925.42	6926.15	4 - 18	Chinle/Alluvium Interface

Notes:

¹ = Corrected water table elevation calculation = (SPH thickness x 0.8) + ground water elevation

ft = feet

ft-bgs = feet below ground surface

SPH = separate phase hydrocarbon

NA = Not applicable

ND = Not detected

NM = Not Measured

Depth to Water Column - if 0.00 is indicated - means water is at top of casing (full) under artesian flow conditions.

Dry indicates no fluid was detected



Revised Investigation Work Plan No. 2

Appendix C - Analytical Results

APPENDIX C. ANALYTICAL RESULTS FOR WELLS MKTF-01 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST, LLC.
MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location ID	Date Sampled	Benzene (mg/L)	Ethyl- benzene (mg/L)	Toluene (mg/L)	Xylenes, Total (mg/L)	MTBE (mg/L)	Diesel Range Organics (mg/L)	Gasoline Range Organics (mg/L)	Oil Range Organics (mg/L)
MKTF-01	06/06/14	8.7	0.92	7.1	4.3	0.42	510	50	ND(50)
MKTF-01	03/11/15	9.3	0.74	2	1.9	0.37	370	31	ND(50)
MKTF-01	06/09/15	9.3	0.74	1.5	1.8	0.41	110	31	ND(50)
MKTF-01	08/21/15	9.1	0.7	1	0.87	0.44	34	26	ND(5)
MKTF-01	11/04/15	10	0.79	1.4	1.2	0.39	200	36	ND(50)
MKTF-01	02/24/16	9.5	0.85	1.8	1	0.33	3	51	ND(5)
MKTF-01R	09/17/21	7.1 J	0.37 J	0.17 J	0.85	0.086 J	1.2	19	ND(0.08)
MKTF-01R	12/22/21	6.8	0.67	0.25	1	0.09	1.4	23	ND(0.08)
MKTF-01R	03/17/22	6.2	0.58	0.34	0.82	0.11	1.3	21	ND(0.08)
MKTF-02	04/08/14	0.11	0.0035	ND(0.002)	0.0076	0.036	ND(1)	0.67	ND(5)
MKTF-02	06/06/14	0.23	0.022	0.0036	0.034	0.042	ND(1)	1.5	ND(5)
MKTF-02	09/18/14	2.1	0.34	0.044	ND(0.0075)	0.1	1.7	6.8	ND(5)
MKTF-02	11/14/14	0.2	0.0029	0.0022	0.0016	0.059	ND(1)	0.61	ND(5)
MKTF-02	03/11/15	0.2	0.0041	ND(0.002)	0.0076	0.044	ND(1)	1.3	ND(5)
MKTF-02	06/09/15	0.47	0.062	0.011	0.039	0.037	ND(1)	3.5	ND(5)
MKTF-02	08/21/15	0.37	0.011	0.0056	0.0033	0.044	ND(1)	2	ND(5)
MKTF-02	11/04/15	0.44	0.072	0.013	0.0063	0.058	1	2.5	ND(5)
MKTF-02	02/24/16	0.11	ND(0.005)	ND(0.005)	ND(0.0075)	0.036	ND(1)	1.2	ND(5)
MKTF-02	06/10/16	1.2	0.21	0.026	0.16	0.087	1.2	5.2	ND(5)
MKTF-02	09/07/16	1.8	0.16	0.017	0.028	0.11	1.5	6.2	ND(5)
MKTF-02	10/28/16	1.6	0.095	0.02	0.0099	0.15	1.4	6.1	ND(5)
MKTF-02	03/16/17	4	0.51	0.056	0.23	0.15	2.7	14	ND(5)
MKTF-02	10/03/17	2.7	0.15	0.028	0.037	0.13	1.5	9.3	ND(5)
MKTF-02	11/20/17	2.9	0.28	0.05	0.069	0.13	2.7	12	ND(5)
MKTF-02	02/06/18	2.6	0.25	0.049	0.089	0.11	2.8	7.7	ND(5)
MKTF-02	05/01/18	2.9	0.24	0.039	0.12	0.097	3.2	9.1	ND(5)
MKTF-02	08/20/18	2.5	0.14	0.031	0.031	0.1	1.3	7.8	ND(5)
MKTF-02	11/28/18	5.5	0.51	0.082	0.17	0.099	2.9	18	ND(5)
MKTF-02	03/28/19	0.62	0.01	0.016	0.13	0.047	3.8	4.1	--
MKTF-02	05/06/19	0.95	0.043	0.019	0.11	0.049	3.5	5.3	--
MKTF-02	08/23/19	0.99	0.078	0.012	ND(0.03)	0.051	3.1	3.9	--
MKTF-02	11/19/19	0.36	0.046	0.003	ND(0.0075)	0.023	0.65	2.4	--
MKTF-02	02/25/20	0.78	0.57	0.01	0.048	0.0091	1.8 J+	7.9	ND(2.5)
MKTF-02	09/21/20	4	0.52	0.033	0.0063	0.061	2.1 J+	9.8	ND(0.6)
MKTF-02	12/18/20	0.885	0.161	0.0119	ND(0.05)	0.0317	4.55	--	--
MKTF-02	03/10/21	1.6	0.3	0.023	0.046 J	0.026	1.4	5.8	ND(0.6)
MKTF-02	06/17/21	1.4	0.34	0.025	0.063	0.029	1.8 J	5.1	0.061 J
MKTF-02R	09/17/21	0.029 J	ND(0.005) UJ	ND(0.005) UJ	ND(0.0075)	0.045 J	0.22	0.56	ND(0.08)
MKTF-02R	12/16/21	0.069	ND(0.001)	ND(0.001)	ND(0.0015)	0.035	0.19	0.54 J+	ND(0.08)
MKTF-02R	03/16/22	0.078	ND(0.001)	ND(0.001)	ND(0.0015)	0.053	0.24 JB	0.63 J	ND(0.08)
MKTF-04	04/11/14	1	0.8	0.025	1	2.4	4.5	9.4	ND(5)
MKTF-04	06/04/14	0.67	0.57	0.019	0.68	1.8	2.9	8.2	ND(5)
MKTF-04	09/15/14	0.15	0.14	ND(0.005)	0.14	1.4	1.5	3.4	ND(5)
MKTF-04	11/13/14	0.18	0.28	ND(0.01)	0.26	1.4	2	4.2	ND(5)
MKTF-04	03/16/15	0.22	0.26	ND(0.01)	0.34	1.2	1.9	4.8	ND(5)
MKTF-04	06/04/15	0.31	0.45	0.013	0.56	1.3	2.3	6.2	ND(5)
MKTF-04	08/18/15	0.32	0.43	0.011	0.55	1.4	3.7	6.8	ND(5)
MKTF-04	11/03/15	0.38	0.7	0.015	0.78	1.5	3	8.6	ND(5)
MKTF-04	02/29/16	0.8	0.73	0.017	0.8	2.2	3.6	9.2	ND(5)
MKTF-04	06/09/16	0.63	0.58	0.015	0.72	1.8	3.9	9	ND(5)

APPENDIX C. ANALYTICAL RESULTS FOR WELLS MKTF-01 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST, LLC.
MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location ID	Date Sampled	Benzene (mg/L)	Ethyl- benzene (mg/L)	Toluene (mg/L)	Xylenes, Total (mg/L)	MTBE (mg/L)	Diesel Range Organics (mg/L)	Gasoline Range Organics (mg/L)	Oil Range Organics (mg/L)
MKTF-04	09/11/16	0.88	0.67	0.015	0.76	2.4	5.3	10	ND(5)
MKTF-04	11/02/16	0.88	0.64	0.018	0.85	2.1	4.1	9.8	ND(5)
MKTF-04	03/02/17	0.98	0.68	0.015	0.88	2.5	5.7	12	ND(5)
MKTF-04	06/08/17	0.92	0.59	0.016	0.89	2	5.7	10	ND(5)
MKTF-04	09/26/17	1.1	0.82	0.019	1.1	2.3	6.6	13	ND(5)
MKTF-04	11/28/17	1.2	0.82	0.019	1.1	2.3	5.6	16	ND(5)
MKTF-04	02/14/18	0.9	0.6	0.014	0.71	2	5	9.6	ND(5)
MKTF-04	05/02/18	1.1	0.74	0.016	0.89	2.3	4.9	12	ND(5)
MKTF-04	09/04/18	1.1	0.7	0.014	0.86	1.8	4.7	12	ND(5)
MKTF-04	11/20/18	1.1	0.61	0.011	0.65	2.2	4.5	7.6	ND(5)
MKTF-04	05/13/19	0.77	0.62	0.013	0.73	1.7	5.4	9.6	--
MKTF-04	08/21/19	0.53	0.42	0.0091	0.44	1.6	4.3	6.4	--
MKTF-04	10/30/19	0.93	0.71	0.012	0.74	1.8	0.73	10	--
MKTF-04	03/03/20	0.8	0.47	0.01	0.56	2.1	1.8	8.2	ND(2.5)
MKTF-04R	09/17/21	1.1 J	0.2 J	0.013 J	0.25	1.6 J	2.2	5.2	0.096
MKTF-04R	12/22/21	0.19	0.033	0.0029J/ND(0.005)U*	0.052	0.86	1.2	2.1	ND(0.08)
MKTF-04R	03/15/22	0.5	0.047	0.0061	0.088	0.85	1.5 J+	3.7	ND(0.08)
MKTF-09	04/14/14	1.1	0.14	0.038	0.075	1.2	3.6	5.7	ND(5)
MKTF-09	06/05/14	1.3	0.2	0.052	0.098	1.2	2.7	6.2	ND(5)
MKTF-09	09/18/14	0.75	0.096	0.027	0.043	0.76	1.4	5.6	ND(5)
MKTF-09	11/14/14	0.81	0.15	0.033	0.11	0.77	2.1	4.4	ND(5)
MKTF-09	03/16/15	0.49	0.08	0.013	0.018	0.5	ND(1)	3.3	ND(5)
MKTF-09	06/04/15	0.89	0.15	0.025	0.039	0.43	1.8	4.1	ND(5)
MKTF-09	08/18/15	1.2	0.2	0.035	0.063	0.6	4.7	7.1	ND(5)
MKTF-09	11/03/15	1.5	0.23	0.036	0.07	0.63	5.3	9.8	ND(5)
MKTF-09	02/29/16	1.6	0.24	0.029	0.064	0.69	2.5	7.4	ND(5)
MKTF-09	06/09/16	1.4	0.21	0.029	0.056	0.53	1.7	7.8	ND(5)
MKTF-09	09/11/16	2	0.22	0.03	0.059	0.62	2.3	6.7	ND(5)
MKTF-09	11/02/16	1.6	0.21	0.026	0.052	0.5	1.6	7.8	ND(5)
MKTF-09	03/15/17	2.4	0.3	0.032	0.083	0.61	3.9	12	ND(5)
MKTF-09	06/12/17	3	0.3	0.032	0.086	0.68	2.4	11	ND(5)
MKTF-09	09/28/17	3	0.3	0.03	0.097	0.53	4.2	13	ND(5)
MKTF-09	11/28/17	3.2	0.26	0.027	0.086	0.51	2.6	11	ND(5)
MKTF-09	02/14/18	2.7	0.25	0.024	0.084	0.48	2.2	8.7	ND(5)
MKTF-09	05/02/18	2.8	0.28	0.025	0.098	0.49	2.6	8.2	ND(5)
MKTF-09	09/04/18	2.7	0.25	0.019	0.084	0.43	2.4	11	ND(5)
MKTF-09	11/28/18	3.3	0.19	ND(0.02)	0.073	0.56	1.8	9.1	ND(5)
MKTF-09	05/13/19	3.2	0.28	0.025	0.095	0.31	3.1	8.4	--
MKTF-09	08/28/19	3.5	0.27	0.021	0.098	0.42	3.9	12	--
MKTF-09	11/18/19	3.7	0.23	0.014	0.069	0.45	1	10	--
MKTF-09	03/03/20	3.3	0.19	0.0099J/ND(0.02)U*	0.055	0.53	0.96	7.9	ND(2.5)
MKTF-10	04/11/14	14	1.5	19	6.9	ND(0.05)	5.9	88	ND(5)
MKTF-10	06/06/14	12	0.74	14	3.4	0.019	5.5	64	ND(5)
MKTF-10	09/18/14	11	0.93	15	4	ND(0.05)	7.7	88	ND(5)
MKTF-10	11/14/14	11	1.7	20	7.6	ND(0.02)	74	84	ND(50)
MKTF-10	03/16/15	11	1.6	21	6.8	ND(0.05)	32	80	ND(5)
MKTF-10	06/04/15	10	1.5	20	6.5	ND(0.05)	23	79	ND(5)
MKTF-10	08/18/15	9.2	1.5	19	6.5	ND(0.05)	55	130	ND(5)
MKTF-10	11/03/15	12	1.6	22	6.8	ND(0.05)	8	100	ND(5)
MKTF-10	02/29/16	11	1.7	23	7.7	ND(0.1)	14	110	ND(5)

APPENDIX C. ANALYTICAL RESULTS FOR WELLS MKTF-01 THROUGH MKTF-50
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MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location ID	Date Sampled	Benzene (mg/L)	Ethyl- benzene (mg/L)	Toluene (mg/L)	Xylenes, Total (mg/L)	MTBE (mg/L)	Diesel Range Organics (mg/L)	Gasoline Range Organics (mg/L)	Oil Range Organics (mg/L)
MKTF-10	06/09/16	15	1.7	22	8.9	0.018	8	110	ND(5)
MKTF-10	09/11/16	16	1.6	20	7.3	ND(0.1)	6	110	ND(5)
MKTF-10	11/02/16	17	1.7	22	8	ND(0.1)	3.8	100	ND(5)
MKTF-10	03/02/17	18	1.6	21	7.8	0.028	5.3	110	ND(5)
MKTF-10	06/08/17	12	1.8	20	8.2	ND(0.1)	3.5	100	ND(5)
MKTF-10	09/28/17	9.5	1.8	8.8	8.7	ND(0.1)	3.6	74	ND(5)
MKTF-10	11/28/17	9.8	1.8	4.7	8.3	0.035	3.5	83	ND(5)
MKTF-10	02/14/18	10	1.8	3.7	8.3	0.014	2.6	74	ND(5)
MKTF-10	05/02/18	13	2.1	4.9	9.6	0.03	3.7	100	ND(5)
MKTF-10	09/04/18	10	1.8	2.4	8.1	ND(0.05)	2.5	57	ND(5)
MKTF-10	11/20/18	11	1.9	1.9	8	ND(0.02)	2.8	53	ND(5)
MKTF-10	05/13/19	5.5	1.7	0.9	7.9	0.024	3.5	48	--
MKTF-10	08/22/19	4.6	1.6	0.66	7.4	0.019	3	35	--
MKTF-10	10/30/19	5.5	1.7	0.57	7.2	0.017	0.35	40	--
MKTF-10	03/03/20	4.8	1.7	0.65	8.2	0.0094 J	1.3	40	ND(2.5)
MKTF-10	12/18/20	4.67	1.8	0.284	8.6	ND(0.025)	5.54	--	--
MKTF-10	03/10/21	5.1	1.5	0.28	7 J	0.009	1.4	40	ND(0.6)
MKTF-10	06/23/21	5.8	1.9	0.59	8.4	0.012	2.1	45	ND(0.08)
MKTF-10	09/15/21	3.7	1.1	0.25	4.3	0.0058 J	1.8	48	ND(0.08)
MKTF-10	12/16/21	6	1.7	0.2	6.7	0.008 J	2.3	37 J+	ND(0.08)
MKTF-10	03/15/22	6.3	1.6	0.22	6.7	0.0096 J	1.9 J+	41	ND(0.08)
MKTF-11	04/11/14	15	0.93	7.6	2.2	0.15	2.7	53	ND(5)
MKTF-11	06/05/14	12	0.75	7.8	2.2	0.096	2.6	48	ND(5)
MKTF-11	09/15/14	9.5	0.72	7.1	2	0.083	1.8	57	ND(5)
MKTF-11	11/13/14	9.5	0.77	8.2	2.3	0.08	1.8	35	ND(5)
MKTF-11	03/16/15	10	0.93	11	3.7	0.048	2.6	55	ND(5)
MKTF-11	06/04/15	12	1.2	13	4.9	0.041	2.8	71	ND(5)
MKTF-11	08/18/15	3.7	0.5	4.2	1.5	0.082	1.6	36	ND(5)
MKTF-11	11/03/15	11	0.96	13	3.9	0.056	2.9	71	ND(5)
MKTF-11	02/29/16	5.1	0.67	6.4	2.2	0.12	1.5	42	ND(5)
MKTF-11	06/09/16	4.5	0.57	5.8	1.8	0.078	1.4	39	ND(5)
MKTF-11	09/11/16	4.5	0.53	4.8	1.6	0.081	1.7	29	ND(5)
MKTF-11	11/02/16	3.9	0.52	4.5	1.6	0.071	1.6	27	ND(5)
MKTF-11	03/02/17	3.9	0.59	3.4	1.6	0.065	1.7	27	ND(5)
MKTF-11	06/08/17	4.5	0.47	4.7	1.5	0.05	1.8	30	ND(5)
MKTF-11	09/26/17	10	0.81	10	2.8	0.054	2.8	63	ND(5)
MKTF-11	11/28/17	9.9	0.84	8.8	2.6	0.068	2.1	59	ND(5)
MKTF-11	02/08/18	13	1	12	3.1	0.059	2.2	69	ND(5)
MKTF-11	05/02/18	13	1.2	12	3.8	0.075	2.5	72	ND(5)
MKTF-11	09/04/18	10	0.81	5.7	2.5	0.064	1.6	53	ND(5)
MKTF-11	11/20/18	11	0.47	4.7	2.5	0.071	1.7	41	ND(5)
MKTF-11	05/13/19	6.1	0.57	3.4	1.8	0.046	1.5	28	--
MKTF-11	08/21/19	9.1	0.67	1.4	1.7	0.028	1.4	35	--
MKTF-11	10/30/19	13	0.85	1.5	2.2	0.041	0.18	32	--
MKTF-11	03/03/20	6	0.32	0.86	1.1	0.059	0.5	18	ND(2.5)
MKTF-11	03/10/21	4.9	0.21	0.25	0.69 J	0.052	0.62	14	ND(0.6)
MKTF-11	06/17/21	6.2	0.45	0.36	1.6	0.049	1 J	19	ND(0.08)
MKTF-11	09/15/21	7.8	0.48	0.4	1.7	0.041	0.88	25	ND(0.08)
MKTF-11	12/16/21	4.3	0.19	0.17	0.91	0.039	0.77	12 J+	ND(0.08)
MKTF-11	03/15/22	5.3	0.45	0.32	1.3	0.024	0.92 J+	19	ND(0.08)

APPENDIX C. ANALYTICAL RESULTS FOR WELLS MKTF-01 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST, LLC.
MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location ID	Date Sampled	Benzene (mg/L)	Ethyl- benzene (mg/L)	Toluene (mg/L)	Xylenes, Total (mg/L)	MTBE (mg/L)	Diesel Range Organics (mg/L)	Gasoline Range Organics (mg/L)	Oil Range Organics (mg/L)
MKTF-11	06/21/22	3.5	0.3	0.096	0.58	0.019	1.3 J+	14	0.82
MKTF-13	03/15/17	3	0.87	0.21	4	2.3	48	28	ND(5)
MKTF-13	05/10/18	4.8	0.87	0.15	4	2	30	28	ND(5)
MKTF-13	08/30/18	3.5	0.65	0.12	3.2	1.2	5.5	26	ND(5)
MKTF-13	11/28/18	4.5	0.53	0.13	2.8	1.4	4.5	24	ND(5)
MKTF-13	03/26/19	3.5	0.6	0.14	3.5	0.44	8.1	27	--
MKTF-13	05/09/19	3.2	0.32	0.12	2.6	0.48	63	19	--
MKTF-13	10/29/19	4.7	0.6	0.11	2.6	0.33	7.3	23	--
MKTF-15	04/10/14	16	1.2	2.4	6.1	0.27	4.1	71	ND(5)
MKTF-15	06/05/14	12	1.3	8.8	3.7	0.27	10	57	ND(5)
MKTF-15	09/17/14	11	1.4	7	4.3	0.38	17	88	ND(5)
MKTF-15	09/11/16	24	2	16	7.3	0.093	17	110	ND(5)
MKTF-15	11/02/16	20	2.1	16	7.6	0.099	6.2	110	ND(5)
MKTF-15	03/02/17	24	2.1	17	7.7	0.16	8.8	140	ND(5)
MKTF-15	06/08/17	23	2.6	22	8.7	0.13	5.9	150	ND(5)
MKTF-15	11/28/17	18	2.2	15	7.7	0.16	5.3	130	ND(5)
MKTF-15	05/02/18	16	2.4	11	7.9	0.18	4	97	ND(5)
MKTF-15	08/28/18	17	1.8	4.6	5.8	0.14	2.7	78	ND(5)
MKTF-15	05/13/19	18	1.8	4.9	5.8	0.068	9.7	72	--
MKTF-16	04/10/14	11	1.1	7.5	3.6	0.27	3.5	67	ND(5)
MKTF-16	06/05/14	18	1.7	3.7	8.1	2	5.7	71	ND(5)
MKTF-16	09/17/14	17	1.2	1.4	5.3	2.1	4.6	66	ND(5)
MKTF-16	11/18/14	20	1.3	1.2	5.8	1.4	2.7	53	ND(5)
MKTF-16	03/16/15	19	1.4	0.45	5.4	1.6	2.9	61	ND(5)
MKTF-16	06/08/15	23	1.4	1.3	5.3	2	4.3	69	ND(5)
MKTF-16	08/23/15	24	1.4	0.64	5.6	2.1	3.7	83	ND(5)
MKTF-16	11/03/15	28	1.7	0.62	6.6	1.7	3.1	91	ND(5)
MKTF-16	02/29/16	19	1	0.28	3.9	1.4	2.6	73	ND(5)
MKTF-16	06/09/16	16	1.1	0.34	3.6	1.4	3	69	ND(5)
MKTF-16	09/12/16	23	1.3	0.24	4.3	1.7	3.5	62	ND(5)
MKTF-16	11/03/16	19	0.88	0.22	3.4	0.97	3.3	70	ND(5)
MKTF-16	03/14/17	22	1.7	0.34	4.9	0.72	5.9	85	ND(5)
MKTF-16	06/08/17	19	0.71	0.22	2.8	0.82	4.3	60	ND(5)
MKTF-16	09/26/17	23	1.6	0.24	3.9	0.92	4.7	78	ND(5)
MKTF-16	11/29/17	21	1.4	0.21	3.2	0.8	4	70	ND(5)
MKTF-16	02/15/18	1.8	0.015	0.024	0.23	0.04	2.4	8.4	ND(5)
MKTF-16	05/11/18	19	1.6	0.17	2	0.64	2.9	47	ND(5)
MKTF-16	08/31/18	17	1.3	0.13	1.4	0.64	3.3	50	ND(5)
MKTF-16	11/29/18	17	0.89	0.12	0.72	0.69	2.6	34	ND(5)
MKTF-16	02/20/19	21	1.4	0.19	1.6	0.61	2.2	48	--
MKTF-16	05/14/19	14	0.71	0.11	0.62	0.62	3.4	30	--
MKTF-16	08/22/19	9.8	0.48	0.043	0.11	0.55	3.6	20	--
MKTF-16	10/30/19	15	1.5	0.095	0.43	0.62	0.24	33	--
MKTF-16	12/23/20	14.7	1.32	0.129	ND(1)	0.279	--	--	--
MKTF-16	03/11/21	4.5	0.55	ND(0.1)	0.16	0.16	--	17	--
MKTF-16	09/24/21	4.8	0.43	ND(0.05)	0.027 J	0.17	ND(1.7) UJ	13	ND(8.3) UJ
MKTF-16	12/28/21	0.016	0.0036	ND(0.001)	ND(0.0015)	0.004	0.35	0.061	0.23
MKTF-16	03/23/22	0.16	0.031	0.0013	0.0067	0.0033	--	1	--
MKTF-16	06/21/22	0.066	0.012	ND(0.001)	0.0022	0.0035	--	0	--
MKTF-16	09/15/22	0.4	0.0091	0.0014 J	0.0056 J	0.0066	--	0.93	--

APPENDIX C. ANALYTICAL RESULTS FOR WELLS MKTF-01 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST, LLC.
MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location ID	Date Sampled	Benzene (mg/L)	Ethyl- benzene (mg/L)	Toluene (mg/L)	Xylenes, Total (mg/L)	MTBE (mg/L)	Diesel Range Organics (mg/L)	Gasoline Range Organics (mg/L)	Oil Range Organics (mg/L)
MKTF-16	12/06/22	0.45	0.076	ND(0.005)	ND(0.0075)	0.011	--	2.1 J+	--
MKTF-17	04/09/14	3.5	0.58	ND(0.01)	0.27	1.3	2.6	8.6	ND(5)
MKTF-17	06/06/14	2.6	0.48	ND(0.01)	0.068	1.1	4.2	8.3	ND(5)
MKTF-17	09/18/14	0.55	0.24	ND(0.01)	ND(0.015)	0.69	1.5	3.3	ND(5)
MKTF-17	11/18/14	0.14	0.078	ND(0.001)	ND(0.0015)	0.57	1.4	1.2	ND(5)
MKTF-17	03/12/15	0.0028	0.0059	ND(0.001)	ND(0.0015)	0.59	ND(1)	0.8	ND(5)
MKTF-17	06/08/15	0.011	0.018	ND(0.001)	ND(0.0015)	0.5	1.3	0.77	ND(5)
MKTF-17	08/18/15	0.036	0.3	0.0011	0.0018	0.64	1.1	1.7	ND(5)
MKTF-17	11/03/15	0.029	0.31	ND(0.002)	ND(0.003)	0.77	1.5	2.5	ND(5)
MKTF-17	02/26/16	0.26	0.018	ND(0.005)	0.023	0.64	ND(1)	1.6	ND(5)
MKTF-17	06/10/16	1.9	0.52	0.006	0.24	0.49	2.1	9.2	ND(5)
MKTF-17	09/13/16	1.3	0.55	0.0021	ND(0.015)	0.38	1.6	7.5	ND(5)
MKTF-17	11/08/16	0.76	0.39	0.0019	0.0043	0.36	1.3	4.5	ND(5)
MKTF-17	03/15/17	0.29	0.23	0.0022	0.07	0.28	2.4	3.5	ND(5)
MKTF-17	06/14/17	0.26	0.58	0.0017	0.0048	0.39	2.2	4	ND(5)
MKTF-17	09/26/17	0.047	0.68	0.0011	ND(0.0075)	0.94	2	4.3	ND(5)
MKTF-17	12/01/17	0.14	0.17	0.0008	ND(0.0075)	1.5	1.1	2.5	ND(5)
MKTF-17	02/16/18	0.22	0.21	0.00098	ND(0.0075)	4.9	1.3	3.7	ND(5)
MKTF-17	05/04/18	0.047	0.14	0.0011	0.002	7.4	1.4	7.1	ND(5)
MKTF-17	08/24/18	0.0027	0.12	ND(0.005)	ND(0.0075)	5.3	ND(1)	4.7	ND(5)
MKTF-17	11/28/18	ND(0.005)	0.028	ND(0.005)	ND(0.0075)	5.7	1.6	3	ND(5)
MKTF-17	05/09/19	2.2	0.49	0.0022	0.15	4.3	7.6	9.1	--
MKTF-17	08/20/19	0.87	0.64	0.0026	0.078	4.3	3.3	7.6	--
MKTF-17	10/29/19	12	1.1	23	3.1	2.5	0.7	78	--
MKTF-17R	09/17/21	1.6 J	0.28 J	5.4 J	2.7	3.9 J	1.8	29	ND(0.8)
MKTF-17R	12/21/21	1.5	0.46	5.8	2.3	4.3	1.8	28	ND(0.08)
MKTF-17R	03/15/22	4.5	1.4	22	6.8	4.8	7 J+	78	ND(0.8)
MKTF-18	04/14/14	0.29	0.058	0.015	0.044	0.15	4.4	2.2	ND(5)
MKTF-18	06/06/14	0.29	0.036	0.014	0.055	0.14	7.8	2.2	ND(5)
MKTF-18	09/18/14	0.12	0.069	0.013	0.042	0.12	3.1	1.4	ND(5)
MKTF-18	11/18/14	0.096	0.09	0.0076	0.047	0.1	2.3	1.4	ND(5)
MKTF-18	03/17/15	0.058	0.017	ND(0.005)	0.029	0.091	5.4	1.8	ND(5)
MKTF-18	06/08/15	0.05	0.049	0.0033	0.031	0.082	3.3	1.4	ND(5)
MKTF-18	08/18/15	0.032	0.054	0.0016	0.019	0.1	34	1.3	ND(5)
MKTF-18	11/03/15	0.019	0.041	ND(0.002)	0.017	0.083	2.5	1.3	ND(5)
MKTF-18	02/26/16	0.017	0.034	ND(0.001)	0.0056	0.071	3	0.79	ND(5)
MKTF-18	06/10/16	0.016	0.021	0.00048	0.0025	0.092	1.9	0.71	ND(5)
MKTF-18	09/13/16	0.016	0.015	0.00037	0.0013	0.074	2.2	0.56	ND(5)
MKTF-18	11/08/16	0.016	0.014	0.0003	0.00076	0.081	1.7	0.6	ND(5)
MKTF-18	03/01/17	0.027	0.026	0.00033	0.00085	0.093	2.7	0.81	ND(5)
MKTF-18	06/14/17	0.03	0.022	ND(0.002)	ND(0.003)	0.1	7.1	0.83	ND(5)
MKTF-18	02/16/18	0.13	0.021	0.00033	ND(0.003)	0.16	2.8	0.85	ND(5)
MKTF-18	05/04/18	0.11	0.014	ND(0.002)	0.00073	0.14	2.4	0.8	ND(5)
MKTF-18	08/24/18	0.19	0.011	ND(0.002)	ND(0.003)	0.11	1.6	0.97	ND(5)
MKTF-18	11/28/18	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.003)	0.13	ND(1)	0.12	ND(5)
MKTF-18	05/16/19	0.14	0.0023	ND(0.002)	ND(0.003)	0.13	3.3	0.69	--
MKTF-18	10/29/19	0.16	0.00083	ND(0.002)	ND(0.003)	0.088	0.2	0.73	--
MKTF-18	02/06/20	0.19 J-	ND(0.002)	0.024	0.0026 J	0.11	ND(0.4)	0.82	ND(2.5)
MKTF-18	12/16/20	0.371	ND(0.002)	ND(0.002)	ND(0.02)	0.0967	2.93	--	--
MKTF-18	03/11/21	0.56 J	0.0014	0.0013	0.0021	0.098	5.8	1.5	2.2

APPENDIX C. ANALYTICAL RESULTS FOR WELLS MKTF-01 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST, LLC.
MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location ID	Date Sampled	Benzene (mg/L)	Ethyl- benzene (mg/L)	Toluene (mg/L)	Xylenes, Total (mg/L)	MTBE (mg/L)	Diesel Range Organics (mg/L)	Gasoline Range Organics (mg/L)	Oil Range Organics (mg/L)
MKTF-18	06/23/21	0.72	0.0015J/ND(0.005)U*	0.0015J/ND(0.005)U*	0.0029J/ND(0.0075)U*	0.11	1.5	1.9	ND(0.08)
MKTF-18R	09/17/21	3.7 J	0.039 J	1.8 J	0.37 J	0.2 J	4.6 J	13 J	ND(0.8)
MKTF-18R	12/21/21	1.9	0.063	0.8	0.31	0.13	4.4	6.7	ND(0.8)
MKTF-18R	03/15/22	1.8	0.042	0.63	0.3	0.11	4 J+	7.2	ND(0.8)
MKTF-18R	06/21/22	2.1	0.051	0.77	0.44	0.13	3.5 J+	10	ND(0.08)
MKTF-18R	09/13/22	1.8	0.049	0.57	0.43	0.13	3.1 J+	8.1	ND(0.08) UJ
MKTF-18R	12/06/22	2.6	0.047	0.41	0.34	0.17	2.5	8.4	ND(0.08)
MKTF-19	04/09/14	1.4	0.68	ND(0.05)	0.61	9.7	17	18	ND(5)
MKTF-19	09/24/14	1.8	0.73	ND(0.05)	0.76	11	61	16	ND(5)
MKTF-19	11/18/14	2.3	0.74	ND(0.05)	0.36	9.7	13	20	ND(5)
MKTF-19	03/12/15	1.4	0.43	ND(0.01)	0.15	9.7	9.3	14	ND(5)
MKTF-19	06/08/15	1.8	0.59	0.013	0.31	9.1	9.9	19	ND(5)
MKTF-19	08/18/15	2.4	0.74	0.015	0.45	8.8	27	20	ND(5)
MKTF-19	11/03/15	2.8	0.76	0.022	0.93	8.4	13	34	ND(5)
MKTF-19	02/25/16	1.5	0.79	ND(0.02)	0.67	8.6	7.8	22	ND(5)
MKTF-19	06/10/16	1.5	0.69	0.0064	0.66	7.9	7.2	21	ND(5)
MKTF-19	09/13/16	1.4	0.69	0.0075	0.92	8.9	7.6	25	ND(5)
MKTF-19	11/08/16	1.3	0.7	0.0068	1	10	6.7	26	ND(5)
MKTF-19	03/15/17	1.8	0.6	0.0098	0.92	9	14	25	ND(5)
MKTF-19	06/14/17	2.3	0.78	0.0084	0.9	10	11	23	ND(5)
MKTF-19	09/26/17	3.2	0.8	0.014	0.87	12	11	29	ND(5)
MKTF-19	12/01/17	1.9	0.75	0.0059	0.75	11	13	24	ND(5)
MKTF-19	02/16/18	1.9	0.74	0.0037	0.64	10	11	16	ND(5)
MKTF-19	05/04/18	2	0.87	0.0057	0.82	11	9.3	23	ND(5)
MKTF-19	08/24/18	1.7	0.71	0.0043	0.74	9.7	7.9	22	ND(5)
MKTF-19	11/28/18	1.9	0.63	ND(0.02)	0.57	10	7.8	15	ND(5)
MKTF-19	05/09/19	1.8	0.77	ND(0.02)	0.61	7.8	11	19	--
MKTF-19	08/19/19	1.4	0.72	ND(0.02)	0.69	8.3	13	18	--
MKTF-19	10/29/19	1.6	0.61	0.013	0.61	7.9	1	17	--
MKTF-20	04/11/14	25	2.8	17	14	0.38	16	120	ND(5)
MKTF-20	11/18/14	4.4	0.48	1.3	10	0.083	24	45	ND(5)
MKTF-20	03/16/15	7	0.089	2.3	9.6	ND(0.05)	4.5	37	ND(5)
MKTF-20	06/08/15	5.9	0.14	0.62	7.3	0.065	9.9	30	ND(5)
MKTF-20	03/01/16	13	1.1	0.47	9.2	0.13	6.9	73	ND(5)
MKTF-20	06/09/16	11	0.85	0.39	7.9	0.16	9	63	ND(5)
MKTF-20	09/12/16	18	1.3	0.48	8.8	0.16	8.7	72	ND(5)
MKTF-20	11/03/16	13	1.1	0.4	9.2	0.19	9.4	65	ND(5)
MKTF-20	03/14/17	17	0.26	2.2	9.8	0.23	16	90	ND(5)
MKTF-20	06/12/17	21	0.7	3.5	14	0.16	5.3	95	ND(5)
MKTF-20	09/26/17	16	0.58	0.34	11	0.17	3.9	78	ND(5)
MKTF-20	11/29/17	17	0.8	0.24	11	0.1	22	91	ND(5)
MKTF-20	02/15/18	12	0.96	0.19	12	0.055	5.1	79	ND(5)
MKTF-20	05/11/18	13	1.3	0.14	13	0.13	9.7	76	ND(5)
MKTF-20	08/31/18	9.9	0.77	0.064	9.1	0.096	11	70	ND(5)
MKTF-20	11/29/18	3	0.12	0.02	2.5	0.026	6.9	17	ND(5)
MKTF-20	02/20/19	2.1	0.23	0.0021	0.14	0.22	9.8	7.3	--
MKTF-20	05/14/19	2.3	1	ND(0.01)	3.5	0.032	5.4	25	--
MKTF-20	08/21/19	4.8	1.1	0.009	3.7	0.035	5.1	28	--
MKTF-20	11/05/19	2.4	0.26	ND(0.01)	0.096	0.17	1.5	7	--
MKTF-20	02/05/20	0.62 J-	0.058	0.0039 J	0.53	0.0057 J	1	4.6	ND(2.5)

APPENDIX C. ANALYTICAL RESULTS FOR WELLS MKTF-01 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST, LLC.
MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location ID	Date Sampled	Benzene (mg/L)	Ethyl- benzene (mg/L)	Toluene (mg/L)	Xylenes, Total (mg/L)	MTBE (mg/L)	Diesel Range Organics (mg/L)	Gasoline Range Organics (mg/L)	Oil Range Organics (mg/L)
MKTF-21	04/11/14	7.2	2.1	13	11	0.58	27	78	ND(5)
MKTF-21	03/16/15	3.7	0.013	0.26	0.27	0.63	3.8	16	ND(5)
MKTF-21	06/10/15	6.2	0.18	0.48	0.81	0.82	--	--	--
MKTF-21	03/01/16	4.6	0.15	0.34	1.3	0.48	3.6	24	ND(5)
MKTF-21	06/09/16	7.5	0.25	0.17	1.3	0.55	3.9	32	ND(5)
MKTF-21	09/12/16	9.3	0.48	0.059	2	0.68	3.9	28	ND(5)
MKTF-21	11/03/16	7.6	0.4	0.068	2.3	0.77	3.4	34	ND(5)
MKTF-21	03/14/17	8	0.46	0.038	2	0.61	4	37	ND(5)
MKTF-21	06/21/17	10	0.69	0.041	2.6	1.2	6.2	30	ND(5)
MKTF-21	09/26/17	6.3	0.61	0.016	0.83	0.63	2	24	ND(5)
MKTF-21	11/28/17	4.9	0.52	0.018	1.4	0.52	2.6	25	ND(5)
MKTF-21	02/15/18	3.4	0.31	0.0035	0.39	0.39	3.2	12	ND(5)
MKTF-21	05/11/18	4.8	0.47	0.0074	0.67	0.52	3.6	17	ND(5)
MKTF-21	08/31/18	5.9	0.8	0.013	0.99	0.5	2.9	22	ND(5)
MKTF-21	11/29/18	2	0.11	ND(0.02)	0.14	0.22	3.8	7.2	ND(5)
MKTF-21	02/20/19	2	1.2	0.016	7.1	0.015	20	40	--
MKTF-21	05/14/19	2.4	0.28	ND(0.02)	0.22	0.29	9.4	8.5	--
MKTF-21	08/22/19	5.4	0.68	ND(0.02)	0.5	0.29	7.4	17	--
MKTF-21	11/05/19	5.6	1.1	0.0082	2.8	0.029	2.7	27	--
MKTF-21	02/05/20	0.058	0.0026 J	ND(0.005)	ND(0.0075)	0.05	0.31 J	0.74	ND(2.5)
MKTF-21	03/11/21	0.018 J	0.0063	0.00041 J	0.0043	0.03	--	1.8 J+	--
MKTF-22	04/10/14	2.3	0.28	0.021	0.032	3.7	2.6	10	ND(5)
MKTF-22	11/17/14	1.6	0.09	ND(0.01)	ND(0.015)	3.9	1.6	6.8	ND(5)
MKTF-22	03/12/15	2.6	0.25	ND(0.02)	ND(0.03)	5.1	2.5	13	ND(5)
MKTF-22	06/09/15	2.9	0.32	0.022	0.047	5.7	2.5	15	ND(5)
MKTF-22	08/20/15	1.2	0.097	ND(0.02)	ND(0.03)	4.8	ND(1)	9.3	ND(5)
MKTF-22	11/09/15	2.7	0.35	ND(0.02)	ND(0.03)	5.5	1.6	14	ND(5)
MKTF-22	02/25/16	4	0.57	0.032	0.07	7.2	2.7	24	ND(5)
MKTF-22	06/10/16	3.8	0.5	0.035	0.062	6.5	2.5	27	ND(5)
MKTF-22	09/10/16	4.2	0.43	0.03	0.049	8.8	2.7	17	ND(5)
MKTF-22	11/01/16	3.7	0.46	0.032	0.054	8	2.1	26	ND(5)
MKTF-22	03/08/17	3.5	0.42	0.03	0.046	6.5	3	23	ND(5)
MKTF-22	06/08/17	2.9	0.18	0.014	0.022	5.9	3	14	ND(5)
MKTF-22	10/03/17	2.4	0.28	0.018	0.037	4.9	2.5	13	ND(5)
MKTF-22	11/28/17	2.5	0.18	0.013	0.025	6	2.4	13	ND(5)
MKTF-22	02/08/18	2.3	0.14	0.0093	0.018	5.7	2.9	10	ND(5)
MKTF-22	05/10/18	2.5	0.15	0.0088	0.014	5.9	3.5	11	ND(5)
MKTF-22	08/30/18	2.2	0.12	0.0056	ND(0.03)	5.4	3.1	11	ND(5)
MKTF-22	11/28/18	3	0.17	ND(0.02)	ND(0.03)	6	2	11	ND(5)
MKTF-22	05/09/19	3.5	0.33	0.0091	ND(0.03)	3.3	2.6	11	--
MKTF-22	08/20/19	3.2	0.26	0.0087	0.014	2.7	2.4	8.2	--
MKTF-22	10/24/19	3.4	0.27	ND(0.02)	ND(0.03)	2.6	0.28	9	--
MKTF-23	09/23/14	2.7	0.34	1.4	1.6	0.48	14	23	ND(5)
MKTF-23	11/17/14	3.6	0.47	3	4.5	0.57	7.7	26	ND(5)
MKTF-23	03/12/15	3.3	0.6	4.8	8.1	1.1	14	35	ND(5)
MKTF-23	06/09/15	2.9	0.51	3	6.5	1.1	23	32	ND(5)
MKTF-23	08/21/15	3	0.42	2.7	6.2	1.2	35	29	ND(5)
MKTF-23	11/09/15	2.6	0.57	3	7.8	1.4	71	34	ND(5)
MKTF-23	02/25/16	3.1	0.31	1.2	6.7	1.6	56	32	ND(5)
MKTF-23	06/10/16	3.2	0.3	0.98	6.1	1.4	710	38	ND(50)

APPENDIX C. ANALYTICAL RESULTS FOR WELLS MKTF-01 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST, LLC.
MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location ID	Date Sampled	Benzene (mg/L)	Ethyl- benzene (mg/L)	Toluene (mg/L)	Xylenes, Total (mg/L)	MTBE (mg/L)	Diesel Range Organics (mg/L)	Gasoline Range Organics (mg/L)	Oil Range Organics (mg/L)
MKTF-23	10/29/19	4.8	1.2	8.3	7.1	0.33	2200	55	--
MKTF-24	04/08/14	0.45	0.065	0.0067	0.0023	0.18	ND(1)	4.2	ND(5)
MKTF-24	09/24/14	1.6	0.058	0.0087	ND(0.003)	0.17	ND(1)	6.3	ND(5)
MKTF-24	11/14/14	1.6	0.049	0.0095	0.0029	0.063	ND(1)	5.7	ND(5)
MKTF-24	03/11/15	2.6	0.031	0.012	ND(0.0075)	0.17	ND(1)	9.2	ND(5)
MKTF-24	06/10/15	2.9	0.046	0.015	ND(0.0075)	0.17	ND(1)	9.8	ND(5)
MKTF-24	08/20/15	2.7	0.056	ND(0.02)	ND(0.03)	0.2	ND(1)	9.5	ND(5)
MKTF-24	11/04/15	2.8	0.054	ND(0.02)	ND(0.03)	0.21	ND(1)	10	ND(5)
MKTF-24	02/22/16	5.6	0.31	0.027	ND(0.03)	0.21	1.5	29	ND(5)
MKTF-24	06/08/16	3	0.074	0.018	0.006	0.21	ND(1)	14	ND(5)
MKTF-24	09/07/16	5.3	0.21	0.021	0.011	0.17	1.2	19	ND(5)
MKTF-24	10/28/16	6.1	0.3	0.025	0.015	0.23	1.1	30	ND(5)
MKTF-24	03/29/17	3	0.042	0.015	ND(0.03)	0.19	0.74	8.2	ND(5)
MKTF-24	06/05/17	6	0.3	0.024	0.0083	0.2	1.8	23	ND(5)
MKTF-24	10/03/17	2.6	0.071	0.019	ND(0.03)	0.16	0.56	10	ND(5)
MKTF-24	11/20/17	5.5	0.32	0.023	0.018	0.16	1	28	ND(5)
MKTF-24	02/06/18	6.3	0.41	0.03	ND(0.03)	0.17	1.1	21	ND(5)
MKTF-24	05/01/18	5.5	0.3	0.029	0.0065	0.13	1.4	23	ND(5)
MKTF-24	08/20/18	4.8	0.32	0.025	ND(0.03)	0.12	1.4	23	ND(5)
MKTF-24	10/10/18	2.5	0.038	0.014	0.0048	0.12	--	--	--
MKTF-24	11/15/18	4.8	0.2	0.021	ND(0.03)	0.12	1.5	16	ND(5)
MKTF-24	05/06/19	3	0.12	0.014	ND(0.03)	0.11	0.65	8.6	--
MKTF-24	08/23/19	4.1	0.24	0.022	0.012	0.11	0.94	15	--
MKTF-24	10/23/19	5	0.31	0.024	ND(0.03)	0.11	ND(0.4)	17	--
MKTF-24	02/25/20	2.9	0.083	0.011 J	ND(0.03)	0.11	0.71	7.2	ND(2.5)
MKTF-24	09/19/20	6.1	0.24	0.024	ND(0.03)	0.12	0.38 J-	15	ND(0.6) UJ
MKTF-24	12/18/20	5.02	0.223	ND(0.025)	ND(0.25)	0.0989	2.47	--	--
MKTF-24	03/09/21	4.9	0.18	0.02	ND(0.015)	0.11	0.48	15	ND(0.6)
MKTF-24	06/16/21	5.7	0.17	0.022	ND(0.015)	0.097	0.69 J	1.4	ND(0.08)
MKTF-24	09/21/21	6.4	0.26	0.027	0.0076 J	0.1	0.65 J	18	ND(0.08)
MKTF-24	12/16/21	5.4	0.28	0.018	0.0077 J	0.081	0.67	12 J+	ND(0.08)
MKTF-24	03/16/22	4.7	0.25	0.019	ND(0.015)	0.079	0.87	12 J	ND(0.08)
MKTF-25	04/08/14	1	0.13	0.0092	0.013	0.27	1.2	6.9	ND(5)
MKTF-25	09/23/14	0.53	0.012	ND(0.01)	ND(0.015)	0.23	ND(1)	5.8	ND(5)
MKTF-25	11/14/14	0.58	0.023	ND(0.005)	ND(0.0075)	0.18	ND(1)	4.8	ND(5)
MKTF-25	03/11/15	0.97	0.17	0.012	ND(0.0075)	0.27	1.1	10	ND(5)
MKTF-25	06/10/15	1	0.099	0.0066	0.016	0.21	ND(1)	11	ND(5)
MKTF-25	08/21/15	1.2	0.13	0.0099	0.0089	0.24	1.1	8.7	ND(5)
MKTF-25	11/05/15	1.1	0.14	0.0087	0.016	0.25	1.2	12	ND(5)
MKTF-25	02/23/16	1.2	0.19	0.011	ND(0.0075)	0.2	1.1	14	ND(5)
MKTF-25	06/09/16	0.99	0.19	0.013	0.018	0.48	0.89	13	ND(5)
MKTF-25	09/09/16	0.92	0.018	0.005	ND(0.015)	0.15	0.94	7.1	ND(5)
MKTF-25	11/01/16	0.96	0.046	0.006	0.0046	0.19	0.88	10	ND(5)
MKTF-25	03/29/17	0.78	0.024	0.0045	0.0043	0.12	0.95	7.8	ND(5)
MKTF-25	06/05/17	0.62	0.021	0.0028	0.003	0.12	1.2	8.4	ND(5)
MKTF-25	09/25/17	1.6	0.13	0.01	0.014	0.23	1	16	ND(5)
MKTF-25	11/21/17	1.6	0.14	0.011	0.013	0.2	0.78	17	ND(5)
MKTF-25	02/05/18	2	0.11	0.01	0.0097	0.25	ND(1)	16	ND(5)
MKTF-25	05/06/18	3.4	0.15	0.015	0.009	0.26	1.1	12	ND(5)
MKTF-25	08/17/18	4.5	0.026	0.017	ND(0.015)	0.25	1	17	ND(5)

APPENDIX C. ANALYTICAL RESULTS FOR WELLS MKTF-01 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST, LLC.
MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location ID	Date Sampled	Benzene (mg/L)	Ethyl- benzene (mg/L)	Toluene (mg/L)	Xylenes, Total (mg/L)	MTBE (mg/L)	Diesel Range Organics (mg/L)	Gasoline Range Organics (mg/L)	Oil Range Organics (mg/L)
MKTF-25	11/15/18	1.7	ND(0.01)	ND(0.01)	ND(0.015)	0.2	ND(1)	5	ND(5)
MKTF-25	05/06/19	0.37	ND(0.01)	ND(0.01)	ND(0.015)	0.29	0.4	3.6	--
MKTF-25	08/27/19	0.13	ND(0.005)	ND(0.005)	ND(0.0075)	0.85	ND(1)	1.7	--
MKTF-25	10/23/19	0.37	0.00081	ND(0.005)	ND(0.0075)	0.88	ND(0.4)	3	--
MKTF-25	02/27/20	0.42	ND(0.005)	ND(0.005)	ND(0.0075)	0.62	0.32 J	2.5	ND(2.5)
MKTF-25	12/18/20	0.629	ND(0.005)	ND(0.005)	ND(0.05)	0.795	1.86	--	--
MKTF-25	03/05/21	0.76	ND(0.01)	0.0027 J	ND(0.015)	0.98	0.32	4.1	ND(0.6)
MKTF-25	06/17/21	0.89	0.0083J/ND(0.01)U*	0.0033J/ND(0.01)U*	ND(0.015)	0.64	0.54 J	4.4	ND(0.08)
MKTF-25	09/21/21	0.76	ND(0.01)	ND(0.01)	ND(0.015)	0.66	0.63 J	2.9	ND(0.08)
MKTF-25	12/17/21	0.7	ND(0.01)	0.0021 J	ND(0.015)	0.5	0.6	3.3	ND(0.08)
MKTF-25	03/16/22	0.096	ND(0.01)	ND(0.01)	ND(0.015)	0.18	0.36	0.97 J	ND(0.08)
MKTF-26	04/08/14	0.017	ND(0.001)	ND(0.001)	ND(0.0015)	0.049	ND(1)	0.2	ND(5)
MKTF-26	09/24/14	1.6	0.012	0.019	0.0016	0.084	ND(1)	2.8	ND(5)
MKTF-26	11/14/14	0.97	ND(0.005)	0.011	ND(0.0075)	0.094	ND(1)	2	ND(5)
MKTF-26	03/11/15	0.8	0.0071	0.0078	ND(0.0075)	0.099	ND(1)	2.5	ND(5)
MKTF-26	06/10/15	0.8	0.0069	0.0087	ND(0.0075)	0.079	ND(1)	2.5	ND(5)
MKTF-26	08/20/15	0.38	ND(0.005)	0.005	ND(0.0075)	0.065	ND(1)	1.5	ND(5)
MKTF-26	11/04/15	0.76	0.0069	0.0072	ND(0.0075)	0.094	ND(1)	2.3	ND(5)
MKTF-26	02/22/16	0.15	ND(0.005)	ND(0.005)	ND(0.0075)	0.055	ND(1)	1.5	ND(5)
MKTF-26	06/09/16	0.33	0.0036	0.019	0.0077	0.082	ND(1)	1.5	ND(5)
MKTF-27	04/08/14	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.003)	0.038	ND(1)	ND(0.1)	ND(5)
MKTF-27	09/24/14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.011	ND(1)	ND(0.05)	ND(5)
MKTF-27	11/14/14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.019	ND(1)	ND(0.05)	ND(5)
MKTF-27	03/11/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0089	ND(1)	ND(0.05)	ND(5)
MKTF-27	06/09/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.034	ND(1)	ND(0.05)	ND(5)
MKTF-27	08/20/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.033	ND(1)	0.064	ND(5)
MKTF-27	11/04/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.031	ND(1)	ND(0.05)	ND(5)
MKTF-27	02/22/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.015	ND(1)	ND(0.05)	ND(5)
MKTF-27	06/08/16	0.00015	0.00015	0.0004	0.00091	0.042	ND(1)	0.084	ND(5)
MKTF-27	09/07/16	0.00031	ND(0.001)	0.00021	ND(0.0015)	0.026	ND(1)	0.068	ND(5)
MKTF-27	10/28/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.021	ND(1)	0.034	ND(5)
MKTF-27	03/29/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.022	ND(1)	0.022	ND(5)
MKTF-27	06/05/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.031	ND(1)	0.03	ND(5)
MKTF-27	10/03/17	0.00013	ND(0.001)	ND(0.001)	ND(0.0015)	0.025	ND(1)	0.013	ND(5)
MKTF-27	11/20/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.023	ND(1)	0.036	ND(5)
MKTF-27	02/06/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.018	ND(1)	ND(0.05)	ND(5)
MKTF-27	05/01/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.025	ND(1)	0.028	ND(5)
MKTF-27	08/20/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.014	ND(1)	0.033	ND(5)
MKTF-27	11/15/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.021	ND(1)	ND(0.05)	ND(5)
MKTF-27	03/28/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0018	0.48	ND(0.05)	--
MKTF-27	05/06/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.019	ND(1)	ND(0.05)	--
MKTF-27	08/21/19	0.0097	ND(0.001)	ND(0.001)	ND(0.0015)	0.024	ND(1)	0.035	--
MKTF-27	10/23/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.014	ND(0.4)	ND(0.05)	--
MKTF-27	02/25/20	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.006	ND(0.4)	0.0068 J	ND(2.5)
MKTF-27	09/20/20	0.00086 J	ND(0.001)	ND(0.001)	ND(0.0015)	0.029	0.19	ND(0.05)	ND(0.6)
MKTF-27	12/18/20	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	0.0044	1.34	--	--
MKTF-27	03/05/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0041	0.11	0.025J/ND(0.05)U*	ND(0.6)
MKTF-27	06/16/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0075	0.13 JB	0.029J/ND(0.05)U*	ND(0.08)
MKTF-27	09/15/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0052 J	0.15 JB	ND(0.05)	0.093
MKTF-27	12/14/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.016	0.12	0.021 J	ND(0.08)

APPENDIX C. ANALYTICAL RESULTS FOR WELLS MKTF-01 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST, LLC.
MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location ID	Date Sampled	Benzene (mg/L)	Ethyl- benzene (mg/L)	Toluene (mg/L)	Xylenes, Total (mg/L)	MTBE (mg/L)	Diesel Range Organics (mg/L)	Gasoline Range Organics (mg/L)	Oil Range Organics (mg/L)
MKTF-27	03/17/22	0.0013	ND(0.001)	ND(0.001)	ND(0.0015)	0.017	0.36	0.054 JB	0.16
MKTF-27	06/24/22	0.00055 J	ND(0.001)	ND(0.001)	ND(0.0015)	0.039	0.19 JB	0.046J/ND(0.05)U*	ND(0.08)
MKTF-27	09/14/22	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.033	0.2 JB	0.03 J	0.068J/ND(0.08)U*
MKTF-27	12/08/22	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.039	0.17 JB	0.034 J	ND(0.08)
MKTF-28	09/24/14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.016	ND(1)	ND(0.05)	ND(5)
MKTF-28	11/14/14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.013	ND(1)	ND(0.05)	ND(5)
MKTF-28	03/11/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-28	06/09/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-28	08/20/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0014	ND(1)	ND(0.05)	ND(5)
MKTF-28	11/04/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.01	ND(1)	ND(0.05)	ND(5)
MKTF-28	02/23/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-28	06/08/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00054	ND(1)	ND(0.05)	ND(5)
MKTF-28	09/08/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0021	ND(1)	0.023	ND(5)
MKTF-28	10/28/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0052	ND(1)	ND(0.05)	ND(5)
MKTF-28	03/29/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00097	ND(1)	ND(0.05)	ND(5)
MKTF-28	06/05/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00044	ND(1)	ND(0.05)	ND(5)
MKTF-28	10/03/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00035	ND(1)	ND(0.05)	ND(5)
MKTF-28	11/20/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0033	ND(1)	ND(0.05)	ND(5)
MKTF-28	02/06/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-28	05/01/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00094	ND(1)	ND(0.05)	ND(5)
MKTF-28	08/20/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.008	ND(1)	0.024	ND(5)
MKTF-28	11/15/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0028	ND(1)	ND(0.05)	ND(5)
MKTF-28	03/28/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00082	ND(1)	ND(0.05)	--
MKTF-28	05/06/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00074	ND(1)	ND(0.05)	--
MKTF-28	08/21/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0045	ND(1)	ND(0.05)	--
MKTF-28	10/22/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0049	ND(0.4)	ND(0.05)	--
MKTF-28	02/25/20	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(0.4)	0.011 J	ND(2.5)
MKTF-28	09/20/20	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0023	0.11	ND(0.05)	ND(0.6)
MKTF-28	12/18/20	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	0.336	--	--
MKTF-28	03/05/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0006 J	0.087	0.023J/ND(0.05)U*	ND(0.6)
MKTF-28	06/16/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0012	0.12 JB	ND(0.05)	ND(0.08)
MKTF-28	09/15/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	0.15 JB	ND(0.05)	0.078 J
MKTF-28	12/14/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00063 J	0.15	ND(0.05)	ND(0.08)
MKTF-28	03/17/22	0.0003 J	ND(0.001)	ND(0.001)	ND(0.0015)	0.00053 J	0.17 JB	0.039J/ND(0.05)U*	0.056 J
MKTF-28	06/24/22	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0007 J	0.19 JB	ND(0.05)	ND(0.08)
MKTF-28	09/14/22	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0016	0.16 JB	ND(0.05)	ND(0.08)
MKTF-28	12/08/22	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0029	0.2 JB	ND(0.05)	ND(0.08)
MKTF-29	04/09/14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.012	ND(1)	ND(0.05)	ND(5)
MKTF-29	09/24/14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.013	ND(1)	ND(0.05)	ND(5)
MKTF-29	03/11/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.017	ND(1)	ND(0.05)	ND(5)
MKTF-29	06/10/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.014	ND(1)	ND(0.05)	ND(5)
MKTF-29	08/20/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.011	ND(1)	ND(0.05)	ND(5)
MKTF-29	11/04/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.01	ND(1)	ND(0.05)	ND(5)
MKTF-29	02/23/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.012	ND(1)	ND(0.05)	ND(5)
MKTF-29	06/09/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0088	ND(1)	ND(0.05)	ND(5)
MKTF-29	09/07/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0024	ND(1)	0.029	ND(5)
MKTF-29	10/28/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.005	ND(1)	ND(0.05)	ND(5)
MKTF-29	03/29/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0094	0.43	0.012	ND(5)
MKTF-29	06/05/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0058	1	ND(0.05)	ND(5)
MKTF-29	10/03/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0072	0.37	ND(0.05)	ND(5)

APPENDIX C. ANALYTICAL RESULTS FOR WELLS MKTF-01 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST, LLC.
MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location ID	Date Sampled	Benzene (mg/L)	Ethyl- benzene (mg/L)	Toluene (mg/L)	Xylenes, Total (mg/L)	MTBE (mg/L)	Diesel Range Organics (mg/L)	Gasoline Range Organics (mg/L)	Oil Range Organics (mg/L)
MKTF-29	11/20/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0095	ND(1)	ND(0.05)	ND(5)
MKTF-29	02/06/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.011	ND(1)	ND(0.05)	ND(5)
MKTF-29	05/01/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0073	0.66	ND(0.05)	ND(5)
MKTF-29	08/20/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0047	ND(1)	0.021	ND(5)
MKTF-29	11/15/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0037	ND(1)	ND(0.05)	ND(5)
MKTF-29	03/28/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0041	0.51	ND(0.05)	--
MKTF-29	05/06/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0048	0.36	ND(0.05)	--
MKTF-29	08/23/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0086	0.39	ND(0.05)	--
MKTF-29	10/22/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.012	ND(0.4)	ND(0.05)	--
MKTF-29	02/25/20	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.015	0.21 J	0.013 J	ND(2.5)
MKTF-29	09/20/20	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.019	0.26	ND(0.05)	ND(0.6)
MKTF-29	12/15/20	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	0.016	0.847	--	--
MKTF-29	03/09/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.023	0.94	0.024J/ND(0.05)U*	ND(0.6)
MKTF-29	06/15/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.021	0.2	0.054 JB	ND(0.08)
MKTF-29	09/15/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.026	0.28 JB	ND(0.05)	0.071 J
MKTF-29	12/14/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.023	0.34	0.029 J	0.055 J
MKTF-29	03/17/22	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.02	0.38	0.058 JB	ND(0.08)
MKTF-29	06/28/22	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.022	0.57 J+	0.025J/ND(0.05)U*	0.57 J
MKTF-29	12/08/22	0.00059 J	ND(0.001)	ND(0.001)	ND(0.0015)	0.022	0.31 JB	0.023 J	ND(0.08)
MKTF-30	04/09/14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.021	ND(1)	ND(0.05)	ND(5)
MKTF-30	09/24/14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0059	ND(1)	ND(0.05)	ND(5)
MKTF-30	11/17/14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0037	ND(1)	0.054	ND(5)
MKTF-30	03/11/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0019	ND(1)	0.053	ND(5)
MKTF-30	06/10/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0027	ND(1)	0.071	ND(5)
MKTF-30	08/20/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0019	ND(1)	0.17	ND(5)
MKTF-30	11/04/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0025	ND(1)	0.11	ND(5)
MKTF-30	02/23/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0023	ND(1)	0.13	ND(5)
MKTF-30	06/09/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0036	ND(1)	0.095	ND(5)
MKTF-30	09/07/16	0.0006	0.00019	ND(0.001)	ND(0.0015)	0.00084	ND(1)	0.23	ND(5)
MKTF-30	10/28/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.002	ND(1)	0.14	ND(5)
MKTF-30	03/29/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0028	ND(1)	0.14	ND(5)
MKTF-30	06/05/17	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.003)	0.002	ND(1)	0.048	ND(5)
MKTF-30	10/03/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0011	ND(1)	0.1	ND(5)
MKTF-30	11/20/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0014	ND(1)	0.075	ND(5)
MKTF-30	02/06/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0028	ND(1)	0.1	ND(5)
MKTF-30	05/01/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0018	ND(1)	0.023	ND(5)
MKTF-30	08/20/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0018	ND(1)	0.12	ND(5)
MKTF-30	11/15/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0021	ND(1)	ND(0.05)	ND(5)
MKTF-30	03/28/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0013	ND(1)	0.036	--
MKTF-30	05/06/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0018	ND(1)	0.043	--
MKTF-30	08/23/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.001	ND(1)	0.047	--
MKTF-30	10/23/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0015	ND(0.4)	0.031	--
MKTF-30	02/27/20	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.002	ND(0.4)	0.051	ND(2.5)
MKTF-30	09/20/20	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0035	ND(0.07)	0.03 J	ND(0.6)
MKTF-30	12/15/20	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	0.00364	0.368	--	--
MKTF-30	03/09/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.006	ND(0.085)	0.071 JB	ND(0.6)
MKTF-30	06/15/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.003	0.083 JB	0.065 JB	ND(0.08)
MKTF-30	09/15/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0028	0.1 JB	0.043 J	ND(0.08)
MKTF-30	12/14/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0042	0.11	0.05 J	ND(0.08)
MKTF-30	03/17/22	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0039	0.13 JB	0.066 JB	ND(0.08)

APPENDIX C. ANALYTICAL RESULTS FOR WELLS MKTF-01 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST, LLC.
MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location ID	Date Sampled	Benzene (mg/L)	Ethyl- benzene (mg/L)	Toluene (mg/L)	Xylenes, Total (mg/L)	MTBE (mg/L)	Diesel Range Organics (mg/L)	Gasoline Range Organics (mg/L)	Oil Range Organics (mg/L)
MKTF-30	06/28/22	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0031	0.11 JB	0.022J/ND(0.05)U*	ND(0.08)
MKTF-30	09/14/22	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0066	0.15 JB	0.028 J	ND(0.08)
MKTF-30	12/15/22	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0042	0.33 JB	0.02 J	0.098
MKTF-31	04/08/14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.055	ND(1)	0.11	ND(5)
MKTF-31	09/23/14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.055	ND(1)	0.061	ND(5)
MKTF-31	11/17/14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.058	ND(1)	0.068	ND(5)
MKTF-31	03/11/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.054	ND(1)	0.077	ND(5)
MKTF-31	06/10/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.056	ND(1)	0.11	ND(5)
MKTF-31	08/21/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.064	ND(1)	0.1	ND(5)
MKTF-31	11/04/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.079	1.3	0.086	ND(5)
MKTF-31	02/23/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.061	ND(1)	0.1	ND(5)
MKTF-31	06/09/16	0.00075	ND(0.001)	ND(0.001)	ND(0.0015)	0.08	ND(1)	0.16	ND(5)
MKTF-31	09/08/16	0.00077	ND(0.001)	ND(0.001)	ND(0.0015)	0.063	ND(1)	0.23	ND(5)
MKTF-31	10/31/16	0.00048	ND(0.001)	0.00015	ND(0.0015)	0.07	ND(1)	0.16	ND(5)
MKTF-31	03/07/17	0.00062	ND(0.001)	ND(0.001)	ND(0.0015)	0.074	ND(1)	0.19	ND(5)
MKTF-31	06/05/17	0.00066	ND(0.001)	ND(0.001)	ND(0.0015)	0.072	0.47	0.15	ND(5)
MKTF-31	09/25/17	0.00085	ND(0.001)	ND(0.001)	ND(0.0015)	0.076	ND(1)	0.2	ND(5)
MKTF-31	11/21/17	0.00062	ND(0.001)	ND(0.001)	ND(0.0015)	0.066	ND(1)	0.23	ND(5)
MKTF-31	02/05/18	0.0013	ND(0.001)	ND(0.001)	ND(0.0015)	0.085	ND(1)	0.19	ND(5)
MKTF-31	05/06/18	0.00099	ND(0.001)	ND(0.001)	ND(0.0015)	0.11	ND(1)	0.32	ND(5)
MKTF-31	08/17/18	0.00073	ND(0.001)	ND(0.001)	ND(0.0015)	0.088	ND(1)	0.22	ND(5)
MKTF-31	11/15/18	0.0011	ND(0.001)	ND(0.001)	ND(0.0015)	0.088	ND(1)	0.12	ND(5)
MKTF-31	02/20/19	0.001	ND(0.001)	ND(0.001)	ND(0.0015)	0.12	ND(1)	0.14	--
MKTF-31	05/06/19	0.00045	ND(0.001)	ND(0.001)	ND(0.0015)	0.09	ND(1)	0.13	--
MKTF-31	08/23/19	0.00072	ND(0.001)	ND(0.001)	ND(0.0015)	0.11	0.84	0.14	--
MKTF-31	10/22/19	0.0006	ND(0.001)	ND(0.001)	ND(0.0015)	0.1	ND(0.4)	0.096	--
MKTF-31	02/25/20	0.00092 J	ND(0.001)	ND(0.001)	ND(0.0015)	0.18	ND(0.4)	0.22	ND(2.5)
MKTF-31	09/19/20	0.00066 J	ND(0.001)	ND(0.001)	ND(0.0015)	0.19	0.2 J-	0.074	ND(0.6) UJ
MKTF-31	12/18/20	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.02)	0.247	0.8	--	--
MKTF-31	03/05/21	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.0075)	0.34	0.11	0.22JD/ND(0.25)U*	ND(0.6)
MKTF-31	06/17/21	0.0014J/ND(0.005)U*	ND(0.005)	ND(0.005)	ND(0.0075)	0.42	0.2 JB	0.23J/ND(0.25)U*	ND(0.08)
MKTF-31	09/16/21	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.0075)	0.41	0.21	0.11 J	ND(0.08)
MKTF-31	12/16/21	0.0013 J	ND(0.005)	ND(0.005)	ND(0.0075)	0.44	0.22	0.43 J+	ND(0.08)
MKTF-31	03/16/22	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.0075)	0.35	0.29 JB	0.55 J	ND(0.08)
MKTF-31	06/22/22	0.00051 J	ND(0.002)	ND(0.002)	ND(0.003)	0.5	0.21 JB	0.36	ND(0.08)
MKTF-31	09/13/22	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.003)	0.5	0.26 JB	0.48	ND(0.08) UJ
MKTF-31	12/08/22	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.003)	0.46	0.23 JB	0.36	ND(0.08)
MKTF-32	04/09/14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.15	ND(1)	0.22	ND(5)
MKTF-32	09/23/14	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.0075)	0.32	ND(1)	0.23	ND(5)
MKTF-32	11/17/14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.4	ND(1)	0.28	ND(5)
MKTF-32	03/12/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.54	ND(1)	0.46	ND(5)
MKTF-32	06/09/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.59	ND(1)	0.58	ND(5)
MKTF-32	08/21/15	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.003)	0.49	ND(1)	0.42	ND(5)
MKTF-32	11/05/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.59	ND(1)	0.57	ND(5)
MKTF-32	02/24/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.62	ND(1)	0.88	ND(5)
MKTF-32	06/09/16	0.00081	ND(0.002)	ND(0.002)	ND(0.003)	0.64	ND(1)	0.81	ND(5)
MKTF-32	09/09/16	0.00047	ND(0.002)	ND(0.002)	ND(0.003)	0.75	ND(1)	0.79	ND(5)
MKTF-32	10/31/16	0.00049	ND(0.001)	ND(0.001)	ND(0.0015)	0.63	ND(1)	0.92	ND(5)
MKTF-32	03/07/17	0.00045	ND(0.001)	ND(0.001)	ND(0.0015)	0.66	ND(1)	0.92	ND(5)
MKTF-32	06/06/17	0.00042	ND(0.001)	ND(0.001)	ND(0.0015)	0.64	ND(1)	0.71	ND(5)

APPENDIX C. ANALYTICAL RESULTS FOR WELLS MKTF-01 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST, LLC.
MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location ID	Date Sampled	Benzene (mg/L)	Ethyl- benzene (mg/L)	Toluene (mg/L)	Xylenes, Total (mg/L)	MTBE (mg/L)	Diesel Range Organics (mg/L)	Gasoline Range Organics (mg/L)	Oil Range Organics (mg/L)
MKTF-32	09/25/17	0.00038	ND(0.001)	ND(0.001)	ND(0.0015)	0.69	ND(1)	0.73	ND(5)
MKTF-32	11/27/17	0.00028	ND(0.001)	ND(0.001)	ND(0.0015)	0.6	ND(1)	0.86	ND(5)
MKTF-32	02/07/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.74	ND(1)	0.65	ND(5)
MKTF-32	05/09/18	0.0004	ND(0.001)	ND(0.001)	ND(0.0015)	0.82	ND(1)	0.64	ND(5)
MKTF-32	08/28/18	0.00076	ND(0.002)	ND(0.002)	ND(0.003)	0.78	ND(1)	0.7	ND(5)
MKTF-32	11/15/18	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.003)	0.81	ND(1)	0.56	ND(5)
MKTF-32	02/13/19	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.003)	0.84	ND(1)	0.43	--
MKTF-32	05/07/19	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.003)	0.74	ND(1)	0.47	--
MKTF-32	08/20/19	0.00031	ND(0.001)	ND(0.001)	ND(0.0015)	0.61	ND(1)	0.5	--
MKTF-32	10/23/19	0.00036	ND(0.002)	ND(0.002)	ND(0.003)	0.67	ND(0.4)	0.280	--
MKTF-32	02/27/20	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.003)	0.9	ND(0.4)	0.6	ND(2.5)
MKTF-32	09/21/20	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.003)	1.1	0.22 J+	0.028 J	ND(0.6)
MKTF-32	12/15/20	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.05)	0.897	0.631	--	--
MKTF-32	06/15/21	0.0005 J	ND(0.002)	ND(0.002)	ND(0.003)	1.2	0.14 JB	0.096J/ND(0.1)U*	ND(0.08)
MKTF-32	09/14/21	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.003)	1.3	0.21 JB	0.053 J	ND(0.08)
MKTF-32	12/09/21	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.003)	1.1	0.22 J	0.93	ND(0.13)
MKTF-32	03/09/22	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.003)	0.87	0.23 JB	1.1	ND(0.08)
MKTF-32	06/16/22	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.003)	1.1	1.2	0.97	1.2
MKTF-32	09/27/22	0.00035 J	ND(0.001)	ND(0.001)	ND(0.0015)	0.89	0.21 JB	0.74	ND(0.08)
MKTF-32	12/29/22	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.74	0.19 JB	0.76	ND(0.08)
MKTF-33	04/10/14	0.028	ND(0.001)	ND(0.001)	ND(0.0015)	0.36	ND(1)	0.21	ND(5)
MKTF-33	09/23/14	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.0075)	0.45	ND(1)	0.25	ND(5)
MKTF-33	11/17/14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.41	ND(1)	0.36	ND(5)
MKTF-33	03/12/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.48	ND(1)	0.35	ND(5)
MKTF-33	06/09/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.49	ND(1)	0.42	ND(5)
MKTF-33	08/21/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.63	ND(1)	0.47	ND(5)
MKTF-33	11/09/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.58	ND(1)	0.53	ND(5)
MKTF-33	02/25/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.31	ND(1)	0.35	ND(5)
MKTF-33	06/10/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.4	ND(1)	0.69	ND(5)
MKTF-33	09/10/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.27	ND(1)	5.2	ND(5)
MKTF-33	11/01/16	ND(0.001)	0.00019	0.00015	ND(0.0015)	0.2	ND(1)	0.31	ND(5)
MKTF-33	03/08/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.23	ND(1)	0.3	ND(5)
MKTF-33	06/08/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.22	ND(1)	0.25	ND(5)
MKTF-33	09/25/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.25	ND(1)	0.26	ND(5)
MKTF-33	11/28/17	0.00011	ND(0.001)	ND(0.001)	ND(0.0015)	0.53	ND(1)	0.35	ND(5)
MKTF-33	02/08/18	ND(0.001)	ND(0.001)	ND(0.001)	0.00055	0.41	ND(1)	0.22	ND(5)
MKTF-33	05/10/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.57	1.5	0.5	ND(5)
MKTF-33	08/30/18	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.003)	0.58	1.3	0.49	ND(5)
MKTF-33	11/28/18	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.003)	0.45	ND(1)	0.24	ND(5)
MKTF-33	05/09/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.3	ND(1)	0.21	--
MKTF-33	08/20/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.73	ND(1)	0.53	--
MKTF-33	10/24/19	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.003)	0.67	ND(0.4)	0.49	--
MKTF-33	02/28/20	0.082	ND(0.002)	0.0026 JB	0.015	0.8	ND(0.4)	0.73	ND(2.5)
MKTF-34	04/09/14	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.003)	ND(0.002)	ND(1)	ND(0.05)	ND(5)
MKTF-34	09/24/14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-34	11/17/14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-34	03/12/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-34	06/08/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-34	08/18/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-34	11/03/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)

APPENDIX C. ANALYTICAL RESULTS FOR WELLS MKTF-01 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST, LLC.
MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location ID	Date Sampled	Benzene (mg/L)	Ethyl- benzene (mg/L)	Toluene (mg/L)	Xylenes, Total (mg/L)	MTBE (mg/L)	Diesel Range Organics (mg/L)	Gasoline Range Organics (mg/L)	Oil Range Organics (mg/L)
MKTF-34	02/25/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-34	06/10/16	0.00045	0.00026	ND(0.001)	ND(0.0015)	0.00058	ND(1)	ND(0.05)	ND(5)
MKTF-34	09/13/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00035	ND(1)	0.033	ND(5)
MKTF-34	11/08/16	0.00014	0.00016	ND(0.001)	ND(0.0015)	0.00097	ND(1)	ND(0.05)	ND(5)
MKTF-34	03/01/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00058	ND(1)	ND(0.05)	ND(5)
MKTF-34	06/14/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00038	ND(1)	ND(0.05)	ND(5)
MKTF-34	09/26/17	0.0003	0.00014	ND(0.001)	ND(0.0015)	0.00078	ND(1)	ND(0.05)	ND(5)
MKTF-34	12/01/17	0.000096	ND(0.001)	ND(0.001)	ND(0.0015)	0.00075	ND(1)	0.027	ND(5)
MKTF-34	02/16/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00066	ND(1)	0.012	ND(5)
MKTF-34	05/04/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00087	ND(1)	ND(0.05)	ND(5)
MKTF-34	08/24/18	0.00024	ND(0.001)	ND(0.001)	ND(0.0015)	0.00087	ND(1)	ND(0.05)	ND(5)
MKTF-34	11/28/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.001	ND(1)	ND(0.05)	ND(5)
MKTF-34	05/09/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	--
MKTF-34	08/19/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	--
MKTF-34	10/29/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00058	ND(0.4)	ND(0.05)	--
MKTF-34	02/05/20	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(0.4)	ND(0.05)	ND(2.5)
MKTF-34	02/28/20	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(0.4)	ND(0.05)	ND(2.5)
MKTF-34	09/16/20	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(0.07) UJ	0.04 J	ND(0.6) UJ
MKTF-34	06/24/21	0.0042	ND(0.001)	0.00095 JB	0.0015	0.00087 J	0.068 JB	0.37	ND(0.08)
MKTF-34	09/14/21	0.0032	ND(0.002)	0.00064 J	0.0011 J	ND(0.002)	0.068 JB	0.33	ND(0.08)
MKTF-34	12/09/21	0.0076	ND(0.002)	ND(0.002)	0.0028 J	ND(0.002)	0.15 JB	0.48	ND(0.13)
MKTF-34	03/09/22	0.0053	ND(0.001)	0.0015	0.0049	ND(0.001)	0.19 JB	1.1	0.2
MKTF-35	11/21/14	0.039	0.052	ND(0.001)	0.073	0.066	3.3	1.6	ND(5)
MKTF-35	03/17/15	0.47	0.32	0.0052	0.17	0.033	6	3.7	ND(5)
MKTF-35	06/04/15	0.79	0.19	0.0023	0.0021	0.027	2.3	2.9	ND(5)
MKTF-35	08/18/15	0.97	0.16	ND(0.005)	ND(0.0075)	0.061	2.9	4.7	ND(5)
MKTF-35	11/03/15	0.19	0.039	ND(0.001)	0.0023	0.048	2.8	1.5	ND(5)
MKTF-35	02/26/16	0.046	0.034	ND(0.005)	ND(0.0075)	0.02	ND(1)	0.87	ND(5)
MKTF-35	06/10/16	0.067	0.012	0.00027	0.0055	0.019	ND(1)	1.4	ND(5)
MKTF-35	09/13/16	0.37	0.025	0.00052	0.011	0.012	ND(1)	2.0	ND(5)
MKTF-35	11/03/16	0.065	0.055	0.00026	0.01	0.01	ND(1)	1.7	ND(5)
MKTF-35	03/01/17	0.053	0.0027	0.00011	ND(0.0015)	0.0079	2.1	0.73	ND(5)
MKTF-35	06/14/17	0.0023	0.0011	ND(0.001)	ND(0.0015)	0.033	2.1	0.6	ND(5)
MKTF-35	09/27/17	0.0015	0.00015	ND(0.001)	ND(0.0015)	0.077	1.7	0.57	ND(5)
MKTF-35	11/30/17	0.0015	0.00029	0.0001	ND(0.0015)	0.11	0.92	0.47	ND(5)
MKTF-35	02/15/18	0.0024	0.00038	0.0034	ND(0.0015)	0.078	0.94	0.37	ND(5)
MKTF-35	05/03/18	0.0099	0.00074	ND(0.001)	ND(0.0015)	0.056	1.3	0.44	ND(5)
MKTF-35	08/23/18	0.011	0.00068	ND(0.001)	ND(0.0015)	0.063	ND(1)	0.49	ND(5)
MKTF-35	11/28/18	0.019	0.0012	ND(0.001)	ND(0.0015)	0.077	ND(1)	0.72	ND(5)
MKTF-35	05/16/19	0.014	0.0024	ND(0.001)	ND(0.0015)	0.042	1.6	0.57	--
MKTF-35	08/19/19	0.022	0.003	ND(0.001)	0.00066	0.026	0.72	0.56	--
MKTF-35	10/29/19	0.056	0.0022	ND(0.001)	ND(0.0015)	0.12	0.48	0.73	--
MKTF-35	02/06/20	6.1	0.8	5.3	1.8	0.32	ND(0.4)	33	ND(2.5)
MKTF-35	09/16/20	4	0.64	0.13	0.91	0.16	1.1 JB	13	ND(0.6)
MKTF-35	03/11/21	3.4 J	0.52	0.1	0.94	0.11	0.82	15	ND(0.6)
MKTF-35	06/23/21	5.4	0.59	0.17	0.7	0.18	1.4	14	ND(0.08)
MKTF-35	09/14/21	7	0.69	0.07	0.33	0.24	1.3 J-	19	ND(0.093) R
MKTF-35	12/21/21	9.6	0.93	4.1	1.5	0.39	1.6	29	ND(0.08)
MKTF-35	03/10/22	8.9	1.2	3.3	2.9	0.61	2	43	ND(0.08)
MKTF-35	06/21/22	14	1.7	3.3	4.2	0.77	3.2 J+	64 J+	ND(0.08)

APPENDIX C. ANALYTICAL RESULTS FOR WELLS MKTF-01 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST, LLC.
MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location ID	Date Sampled	Benzene (mg/L)	Ethyl- benzene (mg/L)	Toluene (mg/L)	Xylenes, Total (mg/L)	MTBE (mg/L)	Diesel Range Organics (mg/L)	Gasoline Range Organics (mg/L)	Oil Range Organics (mg/L)
MKTF-36	11/21/14	8.4	1.5	0.032	0.56	7.2	6.8	25	ND(5)
MKTF-36	03/17/15	8.3	1.4	0.023	0.078	8.3	10	38	ND(5)
MKTF-36	06/04/15	8.1	1.6	0.034	0.14	8.4	13	30	ND(5)
MKTF-36	08/18/15	9	1.6	0.033	0.064	8	14	39	ND(5)
MKTF-36	11/08/16	8.4	1.3	0.021	0.13	6	11	40	ND(5)
MKTF-36	03/01/17	8.6	1.4	0.013	0.032	8	13	35	ND(5)
MKTF-36	06/14/17	9.4	1.6	0.017	0.27	3.9	14	34	ND(5)
MKTF-36	09/27/17	9.1	1.6	0.023	0.067	2.3	24	31	ND(50)
MKTF-36	11/30/17	9.5	1.7	0.03	0.22	2.9	12	31	ND(5)
MKTF-36	02/15/18	8.4	1.5	0.02	0.16	2.5	10	27	ND(5)
MKTF-36	05/03/18	9.4	1.9	0.03	0.19	2.1	10	26	ND(5)
MKTF-36	09/05/18	7.4	1.5	0.019	0.11	1.3	5.6	25	ND(5)
MKTF-36	09/18/20	9.7 J	2.1 J	22 J	4.4 J	0.94 J	15 J	100 J-	ND(6) UJ
MKTF-36	06/23/21	14	1.9	12	4.2	1.2	8.2	75	ND(1.6)
MKTF-37	11/21/14	0.14	0.0093	0.2	1.3	0.027	ND(1)	8.7	ND(5)
MKTF-37	03/17/15	0.82	0.029	0.27	0.49	0.057	4.5	11	ND(5)
MKTF-37	06/04/15	1.2	0.017	0.058	0.93	0.054	5.7	12	ND(5)
MKTF-37	08/18/15	0.76	0.024	0.14	1.6	0.05	39	11	ND(5)
MKTF-37	11/03/16	0.96	0.014	0.012	0.84	0.03	9.3	13	ND(5)
MKTF-37	03/01/17	2	0.024	0.18	0.96	0.032	6.2	15	ND(5)
MKTF-37	05/03/18	2.1	0.078	0.05	0.58	0.041	6.1	16	ND(5)
MKTF-37	08/23/18	1.3	0.036	0.014	0.37	0.037	3	17	ND(5)
MKTF-37	05/14/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	--
MKTF-37	09/17/20	1.3 J	0.081 J	0.026 J	0.42 J	0.033 J	3.5 J	16 J-	ND(0.6) UJ
MKTF-38	11/21/14	0.0028	0.0029	ND(0.001)	0.0031	0.0074	3.8	0.12	ND(5)
MKTF-38	03/16/15	0.0092	ND(0.001)	0.018	ND(0.0015)	0.006	ND(1)	0.33	ND(5)
MKTF-38	06/10/15	0.0054	ND(0.001)	ND(0.001)	ND(0.0015)	0.0076	ND(1)	0.2	ND(5)
MKTF-38	08/24/15	0.0017	ND(0.001)	ND(0.001)	ND(0.0015)	0.0073	ND(1)	0.099	ND(5)
MKTF-38	11/09/15	0.0013	ND(0.001)	ND(0.001)	ND(0.0015)	0.0043	ND(1)	0.12	ND(5)
MKTF-38	02/29/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	0.14	ND(5)
MKTF-38	06/08/16	0.0012	ND(0.001)	ND(0.001)	ND(0.0015)	0.00052	ND(1)	0.06	ND(5)
MKTF-38	09/13/16	0.00093	ND(0.001)	ND(0.001)	ND(0.0015)	0.0006	ND(1)	0.09	ND(5)
MKTF-38	11/01/16	0.00039	ND(0.001)	ND(0.001)	ND(0.0015)	0.001	ND(1)	0.065	ND(5)
MKTF-38	03/14/17	0.00017	ND(0.001)	ND(0.001)	ND(0.0015)	0.00048	ND(1)	ND(0.05)	ND(5)
MKTF-38	06/21/17	0.00079	ND(0.001)	ND(0.001)	ND(0.0015)	0.00068	ND(1)	ND(0.05)	ND(5)
MKTF-38	09/28/17	0.002	ND(0.001)	ND(0.001)	ND(0.0015)	0.00049	ND(1)	0.03	ND(5)
MKTF-38	11/30/17	0.0012	ND(0.001)	0.000074	ND(0.0015)	0.001	ND(1)	0.026	ND(5)
MKTF-38	02/12/18	0.00018	0.00013	0.00019	0.00057	0.001	ND(1)	0.015	ND(5)
MKTF-38	05/03/18	0.0003	ND(0.001)	ND(0.001)	ND(0.0015)	0.00078	ND(1)	ND(0.05)	ND(5)
MKTF-38	08/21/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00036	ND(1)	0.025	ND(5)
MKTF-38	11/20/18	0.0012	ND(0.001)	0.053	ND(0.0015)	ND(0.001)	ND(1)	0.13	ND(5)
MKTF-38	06/27/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	--
MKTF-38	08/20/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00056	ND(1)	ND(0.05)	--
MKTF-38	03/05/20	ND(0.001)	ND(0.001)	1.3	ND(0.0015)	ND(0.001)	ND(0.4) UJ	1.7	ND(2.5)
MKTF-38	09/19/20	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	0.12	ND(0.05)	ND(0.6)
MKTF-38	03/11/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00046 J	ND(0.085)	0.02J/ND(0.05)U*	ND(0.6)
MKTF-38	06/23/21	0.00053J/ND(0.001)U*	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	0.032J/ND(0.064)U*	0.028J/ND(0.05)U*	ND(0.08)
MKTF-38	09/22/21	0.00029 J+	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(0.085)	ND(0.05)	ND(0.6)
MKTF-38	12/21/21	0.00095 J	ND(0.001)	0.00045 J	0.00037 J	0.0011	0.15 JB	0.024 J	ND(0.08)
MKTF-38	03/15/22	0.00049J/ND(0.001)U*	ND(0.001)	0.0008 J	ND(0.0015)	0.0014	0.11 JB	0.047J/ND(0.05)U*	0.066 J

APPENDIX C. ANALYTICAL RESULTS FOR WELLS MKTF-01 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST, LLC.
MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location ID	Date Sampled	Benzene (mg/L)	Ethyl- benzene (mg/L)	Toluene (mg/L)	Xylenes, Total (mg/L)	MTBE (mg/L)	Diesel Range Organics (mg/L)	Gasoline Range Organics (mg/L)	Oil Range Organics (mg/L)
MKTF-38	06/21/22	0.0021	ND(0.001)	ND(0.001)	ND(0.0015)	0.0018	0.22 J+	0.034 J	0.24
MKTF-38	09/13/22	0.016	0.0045	ND(0.001)	0.0086	0.0011	0.73 J+	0.35 J+	ND(0.08) UJ
MKTF-38	12/06/22	0.016	0.0038	ND(0.001)	0.0053	0.00091 J	0.43 JB	0.29 J+	ND(0.08)
MKTF-39	11/18/14	0.02	0.06	ND(0.005)	ND(0.0075)	ND(0.005)	15	0.39	ND(5)
MKTF-39	03/16/15	0.016	0.039	ND(0.002)	ND(0.003)	ND(0.002)	6.2	0.21	ND(5)
MKTF-39	06/10/15	0.025	0.064	ND(0.002)	ND(0.003)	ND(0.002)	44	0.44	ND(5)
MKTF-39	08/23/15	0.023	0.06	ND(0.001)	0.0016	ND(0.001)	13	0.93	ND(5)
MKTF-39	11/09/15	0.021	0.064	ND(0.001)	ND(0.0015)	ND(0.001)	23	0.44	ND(5)
MKTF-39	03/03/16	0.019	0.064	ND(0.001)	ND(0.0015)	ND(0.001)	13	0.46	ND(5)
MKTF-39	06/08/16	0.016	0.061	ND(0.001)	0.00069	0.00036	19	0.67	ND(5)
MKTF-39	09/13/16	0.016	0.06	ND(0.005)	ND(0.0075)	ND(0.005)	10	1.10	ND(5)
MKTF-39	11/01/16	0.013	0.059	ND(0.005)	ND(0.0075)	ND(0.005)	17	0.36	ND(5)
MKTF-39	03/14/17	0.012	0.063	ND(0.005)	ND(0.0075)	ND(0.005)	28	1.5	ND(5)
MKTF-39	06/08/17	0.012	0.057	ND(0.005)	ND(0.0075)	ND(0.005)	56	0.73	ND(5)
MKTF-39	09/28/17	0.01	0.049	ND(0.005)	ND(0.0075)	ND(0.005)	28	0.37	ND(5)
MKTF-39	11/28/17	0.013	0.05	ND(0.005)	ND(0.0075)	ND(0.005)	14	0.9	ND(5)
MKTF-39	02/08/18	0.013	0.048	0.0024	0.0021	ND(0.005)	17	0.7	ND(5)
MKTF-39	05/06/18	0.012	0.056	ND(0.005)	ND(0.0075)	ND(0.005)	17	0.7	ND(5)
MKTF-39	08/21/18	0.0083	0.045	ND(0.001)	ND(0.0015)	ND(0.001)	11	0.91	ND(5)
MKTF-39	11/20/18	0.0084	0.03	ND(0.001)	0.0039	ND(0.001)	11	0.25	ND(5)
MKTF-39	06/05/19	0.0091	0.034	0.0008	0.016	ND(0.001)	46	0.34	--
MKTF-39	08/20/19	0.0083	0.038	ND(0.005)	ND(0.0075)	ND(0.005)	17	0.65	--
MKTF-39	11/05/19	0.01	0.041	ND(0.001)	0.0014	ND(0.001)	16	0.48	--
MKTF-39	02/05/20	0.0094	0.038	ND(0.002)	ND(0.003)	ND(0.002)	1.4	0.57 J+	ND(2.5)
MKTF-39	09/19/20	0.018	0.043	ND(0.002)	ND(0.003)	ND(0.002)	11	0.66	ND(0.6)
MKTF-39	12/16/20	0.0144	0.0334	ND(0.001)	ND(0.01)	ND(0.001)	6.82	--	--
MKTF-40	11/21/14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-40	03/11/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-40	06/10/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-40	08/21/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-40	11/04/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-40	02/23/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-40	06/09/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00062	ND(1)	ND(0.05)	ND(5)
MKTF-40	09/08/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-40	10/31/16	ND(0.001)	ND(0.001)	0.00015	ND(0.0015)	0.0003	ND(1)	ND(0.05)	ND(5)
MKTF-40	03/07/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00041	ND(1)	ND(0.05)	ND(5)
MKTF-40	06/05/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00046	ND(1)	ND(0.05)	ND(5)
MKTF-40	09/25/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00046	ND(1)	ND(0.05)	ND(5)
MKTF-40	11/21/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-40	02/05/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-40	05/06/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-40	08/17/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	0.019	ND(5)
MKTF-40	11/15/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-40	02/20/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	--
MKTF-40	05/06/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	--
MKTF-40	08/22/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	--
MKTF-40	10/22/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00072	ND(0.4)	ND(0.05)	--
MKTF-40	02/28/20	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00076 J	ND(0.4)	ND(0.05)	ND(2.5)
MKTF-40	09/19/20	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00058 J	0.18	ND(0.05)	ND(0.6)
MKTF-40	12/17/20	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	0.00103	0.223	--	--

APPENDIX C. ANALYTICAL RESULTS FOR WELLS MKTF-01 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST, LLC.
MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location ID	Date Sampled	Benzene (mg/L)	Ethyl- benzene (mg/L)	Toluene (mg/L)	Xylenes, Total (mg/L)	MTBE (mg/L)	Diesel Range Organics (mg/L)	Gasoline Range Organics (mg/L)	Oil Range Organics (mg/L)
MKTF-40	03/05/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0012	ND(0.085)	0.024J/ND(0.05)U*	ND(0.6)
MKTF-40	06/17/21	0.00037J/ND(0.001)U*	ND(0.001)	ND(0.001)	ND(0.0015)	0.0013	0.063J/ND(0.064)U*	0.029J/ND(0.05)U*	ND(0.08)
MKTF-40	09/21/21		ND(0.001)	ND(0.001)	ND(0.0015)	0.00094 J	0.04J/ND(0.064)U*	ND(0.05)	ND(0.08)
MKTF-40	12/17/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.001	0.044J/ND(0.064)U*	ND(0.05)	ND(0.08)
MKTF-40	03/16/22	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.001	0.058J/ND(0.064)U*	0.038J/ND(0.05)U*	ND(0.08)
MKTF-40	06/22/22	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0013	0.053J/ND(0.064)U*	ND(0.05)	ND(0.08) UJ
MKTF-40	09/13/22	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00073 J	0.05JE/ND(0.064)U*	ND(0.05)	ND(0.08) UJ
MKTF-40	12/08/22	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	0.067B/ND(0.067)U*	ND(0.05)	ND(0.08)
MKTF-41	11/18/14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-41	03/12/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-41	06/09/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-41	08/21/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-41	11/05/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-41	02/24/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-41	06/09/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.003	ND(1)	ND(0.05)	ND(5)
MKTF-41	09/09/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00041	ND(1)	ND(0.05)	ND(5)
MKTF-41	10/31/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00091	ND(1)	ND(0.05)	ND(5)
MKTF-41	03/07/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0012	ND(1)	ND(0.05)	ND(5)
MKTF-41	06/06/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0012	ND(1)	ND(0.05)	ND(5)
MKTF-41	09/25/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0012	ND(1)	0.029	ND(5)
MKTF-41	11/27/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00081	ND(1)	ND(0.05)	ND(5)
MKTF-41	02/07/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0014	ND(1)	ND(0.05)	ND(5)
MKTF-41	05/09/18	ND(0.001)	ND(0.001)	ND(0.001)	0.00047	0.0016	ND(1)	ND(0.05)	ND(5)
MKTF-41	08/29/18	ND(0.001)	ND(0.001)	ND(0.001)	0.00082	0.0011	ND(1)	ND(0.05)	ND(5)
MKTF-41	11/15/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0014	ND(1)	ND(0.05)	ND(5)
MKTF-41	02/13/19	ND(0.001)	ND(0.001)	ND(0.001)	0.0013	0.00099	ND(1)	ND(0.05)	--
MKTF-41	05/07/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00087	ND(1)	ND(0.05)	--
MKTF-41	08/22/19	ND(0.001)	ND(0.001)	ND(0.001)	0.00063	0.0012	ND(1)	ND(0.05)	--
MKTF-41	10/23/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.0013	ND(0.4)	ND(0.05)	--
MKTF-41	02/27/20	ND(0.001)	ND(0.001)	ND(0.001)	0.0028	0.0012	0.35 J	0.028 J	ND(2.5)
MKTF-41	09/21/20	ND(0.001)	0.00036 J	ND(0.001)	0.0043	0.001	0.52 J+	0.022 J	ND(0.6)
MKTF-41	12/15/20	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	3.4	--	--
MKTF-41	03/04/21	0.00035 J	0.00063 J	ND(0.001)	0.0062	0.00056 J	0.6	0.056 JB	ND(0.6)
MKTF-41	06/15/21	0.00033 J	0.0005 J	ND(0.001)	0.004	0.0011	0.81	0.045J/ND(0.05)U*	ND(0.8)
MKTF-41	09/14/21	0.00024 J	0.00075 J	ND(0.001)	0.0073	0.00051 J	1.4	0.047 J	0.26
MKTF-41	12/09/21	0.00037 J	0.0012	ND(0.001)	0.01	0.00057 J	1.6	0.082 JB	ND(0.13)
MKTF-41	03/09/22	0.00035 J	0.0008 J	ND(0.001)	0.0066	0.00056 J	1.7	0.085 JB	ND(0.08)
MKTF-41	06/16/22	0.00028 J	0.00083 J	0.00021J/ND(0.001)U*	0.0069	0.00065 J	1.9	0.038 J	ND(0.08)
MKTF-41	09/27/22	0.0004 J	ND(0.001)		0.0008 J	0.0011	1.9 J+	0.014 J	0.061 J
MKTF-41	12/29/22	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	1 JB	ND(0.05)	0.11
MKTF-42	11/18/14	0.012	ND(0.01)	ND(0.01)	0.056	ND(0.01)	44	ND(0.5)	ND(5)
MKTF-42	03/11/15	0.0017	ND(0.001)	ND(0.001)	0.01	ND(0.001)	27	ND(0.5)	ND(5)
MKTF-42	06/09/15	0.0016	ND(0.001)	ND(0.001)	0.011	ND(0.001)	60	0.1	ND(5)
MKTF-42	08/21/15	0.0028	0.001	ND(0.001)	0.017	ND(0.001)	52	0.21	ND(5)
MKTF-42	11/05/15	0.0033	0.0017	ND(0.001)	0.022	ND(0.001)	45	0.11	ND(5)
MKTF-42	02/24/16	0.0041	0.0011	ND(0.001)	0.026	ND(0.001)	52	0.12	ND(5)
MKTF-42	06/09/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	60	0.16	ND(5)
MKTF-42	09/09/16	0.004	0.0018	0.00033	0.025	0.00056	62	0.7	ND(50)
MKTF-42	10/31/16	0.0034	0.0019	0.00049	0.027	0.00067	62	0.11	ND(5)
MKTF-42	03/07/17	0.0049	0.0011	0.00044	0.024	0.0011	79	0.14	ND(5)

APPENDIX C. ANALYTICAL RESULTS FOR WELLS MKTF-01 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST, LLC.
MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location ID	Date Sampled	Benzene (mg/L)	Ethyl- benzene (mg/L)	Toluene (mg/L)	Xylenes, Total (mg/L)	MTBE (mg/L)	Diesel Range Organics (mg/L)	Gasoline Range Organics (mg/L)	Oil Range Organics (mg/L)
MKTF-42	06/06/17	0.0049	0.0011	0.00037	0.021	0.0014	72	0.15	ND(5)
MKTF-42	09/25/17	0.0093	0.0039	0.00098	0.046	0.002	72	0.21	ND(50)
MKTF-42	11/27/17	0.0071	0.0026	0.0008	0.037	0.002	77	0.19	ND(5)
MKTF-42	02/07/18	0.0084	0.0015	ND(0.001)	0.032	0.0033	79	0.46	ND(5)
MKTF-42	05/09/18	0.0093	0.0016	0.00076	0.031	0.0038	72	0.4	ND(5)
MKTF-42	08/29/18	0.011	0.0018	0.0007	0.032	0.0043	64	0.21	ND(5)
MKTF-42	11/15/18	0.03	0.0087	0.0021	0.11	0.005	63	0.56	ND(5)
MKTF-42	02/13/19	0.017	0.0031	0.00087	0.051	0.0044	67	0.34	--
MKTF-42	05/07/19	0.007	0.00033	ND(0.002)	0.015	0.004	59	0.16	--
MKTF-42	08/22/19	0.0096	0.0011	ND(0.002)	0.022	0.0041	57	0.22	--
MKTF-42	10/23/19	0.011	0.0011	ND(0.002)	0.021	0.0044	8.6	0.14	--
MKTF-42	02/27/20	0.022	0.0037	0.00099J/ND(0.001)U*	0.07	0.0042	35	0.7	ND(2.5)
MKTF-42	09/21/20	0.029	0.0037	0.0011	0.08	0.0035	26 J+	0.41	ND(6)
MKTF-42	12/16/20	0.0142 J	0.00125 J	ND(0.001)	0.0265 J	0.00251	42.5	--	--
MKTF-42	03/04/21	0.016	0.0015	0.00066J/ND(0.001)U*	0.03	0.0029	17	0.21 JB	ND(6)
MKTF-42	06/15/21	0.014	0.0015 J	0.00062J/ND(0.002)U*	0.03	0.0038	18	0.21 JB	ND(8)
MKTF-42	09/14/21	0.026	0.0029	0.00086 J	0.063	0.0028	21	0.39	ND(4)
MKTF-42	12/09/21	0.023	0.0033	0.0013 J	0.066	0.0027	26	0.5	ND(4)
MKTF-42	03/09/22	0.0095 J	0.0012	0.00043 J	0.026 J	0.0012	23	0.21 JB	ND(1.6)
MKTF-43	11/18/14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-43	03/11/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-43	06/10/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-43	08/21/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-43	11/05/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-43	02/24/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-43	06/09/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-43	09/09/16	0.00014	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	0.026	ND(5)
MKTF-43	10/31/16	ND(0.001)	ND(0.001)	0.00013	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-43	03/08/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-43	06/06/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-43	09/25/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-43	11/27/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-43	02/07/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-43	05/09/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-43	08/30/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-43	11/15/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-43	02/13/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	--
MKTF-43	05/08/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	--
MKTF-43	08/22/19	0.00035	ND(0.001)	ND(0.001)	0.0007	ND(0.001)	ND(1)	ND(0.05)	--
MKTF-43	10/24/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(0.4)	ND(0.05)	--
MKTF-43	02/27/20	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(0.4)	0.01 J	ND(2.5)
MKTF-43	09/21/20	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	0.072 J+	ND(0.05)	ND(0.6)
MKTF-43	12/15/20	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	0.276	--	--
MKTF-43	03/04/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	0.079 J+	0.024J/ND(0.05)U*	ND(0.6)
MKTF-43	06/24/21	0.00024J/ND(0.001)U*	0.00094 J	0.00085J/ND(0.001)U*	0.0074	ND(0.001)	0.15	0.06	ND(0.08)
MKTF-43	09/23/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	0.13 JB	ND(0.05)	0.058J/ND(0.08)U*
MKTF-43	12/08/21	ND(0.001)	ND(0.001)	0.00032 J	ND(0.0015)	ND(0.001)	0.16 JB	ND(0.05)	ND(0.08)
MKTF-43	03/08/22	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	0.00051 J	0.13	0.039J/ND(0.05)U*	ND(0.08)
MKTF-43	06/16/22	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	0.15 JB	ND(0.05)	ND(0.08)
MKTF-43	09/27/22	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	0.1 JB	ND(0.05)	ND(0.08)

APPENDIX C. ANALYTICAL RESULTS FOR WELLS MKTF-01 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST, LLC.
MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location ID	Date Sampled	Benzene (mg/L)	Ethyl- benzene (mg/L)	Toluene (mg/L)	Xylenes, Total (mg/L)	MTBE (mg/L)	Diesel Range Organics (mg/L)	Gasoline Range Organics (mg/L)	Oil Range Organics (mg/L)
MKTF-43	12/22/22	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	0.13 JB	ND(0.05)	ND(0.08)
MKTF-44	11/21/14	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.003)	ND(0.002)	ND(1)	ND(0.05)	ND(5)
MKTF-44	03/12/15	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.003)	ND(0.002)	ND(1)	ND(0.05)	ND(5)
MKTF-44	06/10/15	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.003)	ND(0.002)	ND(1)	ND(0.05)	ND(5)
MKTF-44	08/17/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.1)	ND(5)
MKTF-44	11/09/15	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-44	02/24/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-44	06/09/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-44	09/09/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	0.023	ND(5)
MKTF-44	11/01/16	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-44	03/08/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-44	06/05/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-44	09/25/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-44	11/28/17	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	0.017	ND(5)
MKTF-44	02/08/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	0.01	ND(5)
MKTF-44	05/10/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-44	08/30/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	1.7	0.015	ND(5)
MKTF-44	11/15/18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	ND(5)
MKTF-44	02/13/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	0.022	--
MKTF-44	05/08/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	--
MKTF-44	08/22/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(1)	ND(0.05)	--
MKTF-44	10/24/19	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(0.4)	ND(0.05)	--
MKTF-44	03/05/20	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(0.4) UJ	ND(0.05)	ND(2.5)
MKTF-44	09/21/20	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(0.07)	ND(0.05)	ND(0.6)
MKTF-44	12/23/20	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	0.171	--	--
MKTF-44	03/11/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(0.085)	0.015J/ND(0.05)U*	ND(0.6)
MKTF-44	06/24/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(0.064)	ND(0.05)	ND(0.08)
MKTF-44	09/30/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	0.059J/ND(0.064)U*	ND(0.05)	ND(0.08)
MKTF-44	12/23/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	0.018J/ND(0.064)U*	ND(0.05)	ND(0.08)
MKTF-44	03/24/22	ND(0.001)	0.00061J/ND(0.001)U*	ND(0.001)	ND(0.0015)	ND(0.001)	0.028J/ND(0.064)U*	ND(0.05)	ND(0.08)
MKTF-44	06/29/22	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	0.042J/ND(0.064)U*	ND(0.05)	ND(0.08)
MKTF-44	09/27/22	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	0.048J/ND(0.064)U*	ND(0.05)	ND(0.08)
MKTF-44	12/22/22	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	0.024JBE/ND(0.064)U*	ND(0.05)	ND(0.08)
MKTF-46	03/06/20	0.0004 J	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(0.4)	ND(0.05)	ND(2.5)
MKTF-46	09/17/20	ND(0.001) UJ	ND(0.001) UJ	ND(0.001) UJ	ND(0.0015) UJ	ND(0.001) UJ	ND(0.07) UJ	ND(0.05) UJ	ND(0.6) UJ
MKTF-46	12/16/20	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.152)	--	--
MKTF-46	03/04/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(0.085)	0.024J/ND(0.05)U*	ND(0.6)
MKTF-46	06/16/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	0.043J/ND(0.064)U*	ND(0.05)	ND(0.08)
MKTF-46	09/14/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	0.059J/ND(0.064)U*	ND(0.05)	ND(0.08)
MKTF-46	12/09/21	0.00023 J	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	0.17 JB	0.04J/ND(0.05)U*	ND(0.14)
MKTF-46	03/10/22	ND(0.001)	ND(0.001)	ND(0.001)	0.00077 J	ND(0.001)	0.042J/ND(0.064)U*	0.061/ND(0.061)U*	ND(0.08)
MKTF-46	06/21/22	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	0.07 JB	0.016 J	ND(0.08)
MKTF-46	09/13/22	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	0.068 JB	0.025 J	ND(0.08) UJ
MKTF-46	12/06/22	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	0.051JB/ND(0.064)U*	0.033 J	ND(0.08)
MKTF-47	03/06/20	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(0.4)	ND(0.05)	ND(2.5)
MKTF-47	03/11/21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0015)	ND(0.001)	ND(0.085)	0.016J/ND(0.05)U*	ND(0.6)
MKTF-49	03/05/20	20	1.3	8.4	6.8	0.011	1.1 J+	77	ND(2.5)
MKTF-49	09/20/20	23	1.5	9.9	7.5	ND(0.05)	0.76 J-	97	ND(0.6) UJ
MKTF-49	12/23/20	21.8	1.43	10	7.45	ND(0.1)	5.75	--	--
MKTF-49	03/09/21	18	1.2	7.9	6.4 J	0.014 J	2.2	86	ND(0.6)

APPENDIX C. ANALYTICAL RESULTS FOR WELLS MKTF-01 THROUGH MKTF-50
WESTERN REFINING SOUTHWEST, LLC.
MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Location ID	Date Sampled	Benzene (mg/L)	Ethyl- benzene (mg/L)	Toluene (mg/L)	Xylenes, Total (mg/L)	MTBE (mg/L)	Diesel Range Organics (mg/L)	Gasoline Range Organics (mg/L)	Oil Range Organics (mg/L)
MKTF-50	03/05/20	12	1.3	0.042	0.081 J	0.0045 J	2.9 J+	22	ND(2.5)
MKTF-50	12/16/20	5.97	1.13	0.0273	0.286	0.0225	7.41	--	--
MKTF-50	03/09/21	1.4	0.89	0.035	0.56 J	0.042	2.5	21	ND(0.6)
NMED Groundwater Cleanup Levels		0.005	0.7	1	0.62	0.1	NA	NA	NA
NMED TPH Levels		NA	NA	NA	NA	NA	0.0167	0.010	0.0858

Notes:

MDL - method detection limit

mg/L - milligrams per liter

ND - not detected (MDL provided in parentheses)

J - estimated concentration

J+ - estimated concentration biased low

J- - estimated concentration biased high

UJ - estimated reporting limit

-- - not sampled/not analyzed

0.016 J/ND(0.5) U* - Detection result determined to be from blank contamination

highlight/bold - exceeds applicable screening level

NMED Groundwater Cleanup Levels - New Mexico Environment Department Groundwater Cleanup Levels, New Mexico Administrative Code 20.6.2.3103

NMED TPH Levels – New Mexico Environment Department, Total Petroleum Hydrocarbons Screening Levels, Risk Assessment Guidance for Investigations and Remediation, Table 6-4, November 2022



Revised Investigation Work Plan No. 2

Appendix D - C-141 Form – Gasoline Release

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Marathon – Gallup Refinery	OGRID
Contact Name: JOHN MOORE	Contact Telephone: 505-722-0205
Contact email: JMOORE5@MARATHONPETROLEUM.COM	Incident # (assigned by OCD)
Contact mailing address: 92 Giant Crossing Road, Gallup, NM 87301	

Location of Release Source

Latitude 35°29'29.70"N Longitude 108°25'25.00"W
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Gallup Refinery	Site Type: Refinery
Date Release Discovered: 10/27/19	API# (if applicable)

Unit Letter	Section	Township	Range	County
SWNE	33	15N	15W	McKinley

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (Name: _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☒ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Unleaded Gasoline	Estimated greater than 100 BBLS Gasoline to ground	No significant recovery to date

Cause of Release

On 10/27/19 staining, that was initially thought to be historic, was discovered on the ground W of the truck rack. Hydrocarbon was found to be seeping out of the ground into a stormwater ditch. An earthen berm was placed to stop flow in the ditch and a vac truck was used to vacuum up any hydrocarbon and water accumulating. There has been no significant amount of hydrocarbon accumulating. Once it was determined that the leak was from an underground transfer line, the line was blocked in. Repair of the line is in progress.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? The quantity is estimated to be greater than 25 BBLS.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? John Moore notified Carl Chavez, OCD, on 11/5/19, after it was determined the leak was likely greater than 100 BBLS.	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

- ☒ The source of the release has been stopped.
- ☒ The impacted area has been secured to protect human health and the environment.
- ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: John Moore Title: ENVIRONMENTAL SUPERINTENDENT
Signature: [Signature] Date: 11-7-19
email: jmoore5@marathonpetroleum.com Telephone: 505-863-3205

OCD Only

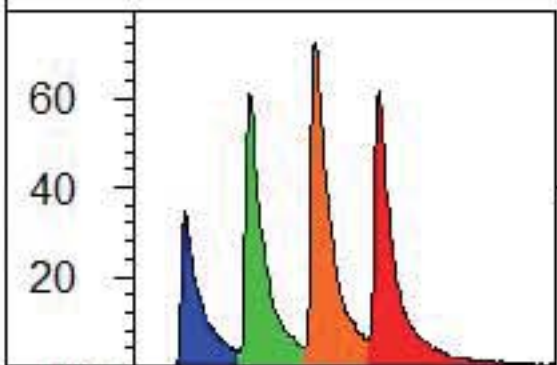
Received by: _____ Date: _____



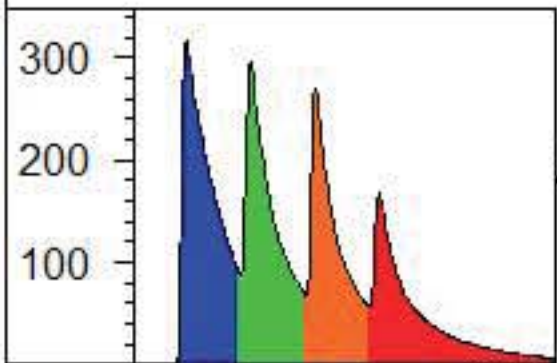
Revised Investigation Work Plan No. 2

Appendix E - UVOST Boring Logs

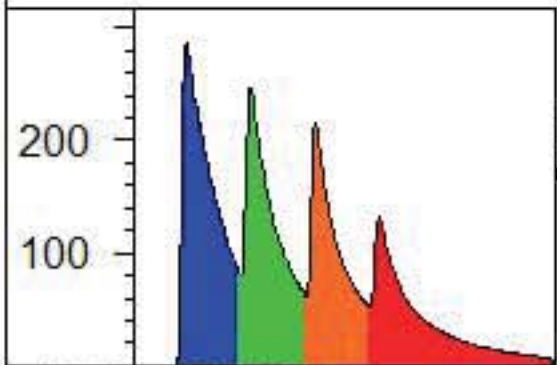
Callouts



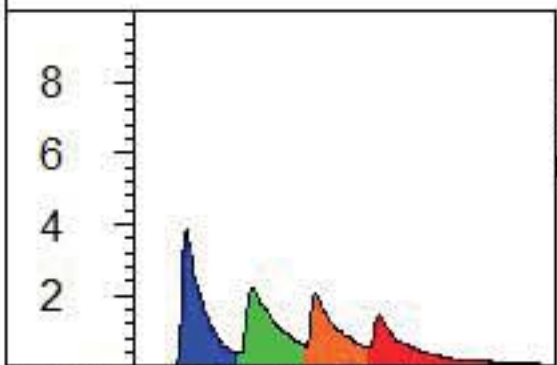
4.19 ft
38.2 %RE



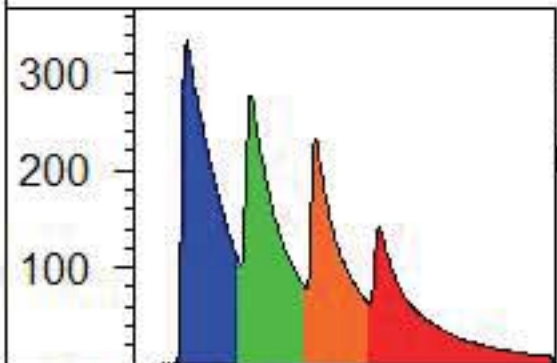
4.78 - 12.29 ft
269.2 %RE (s 46.0)



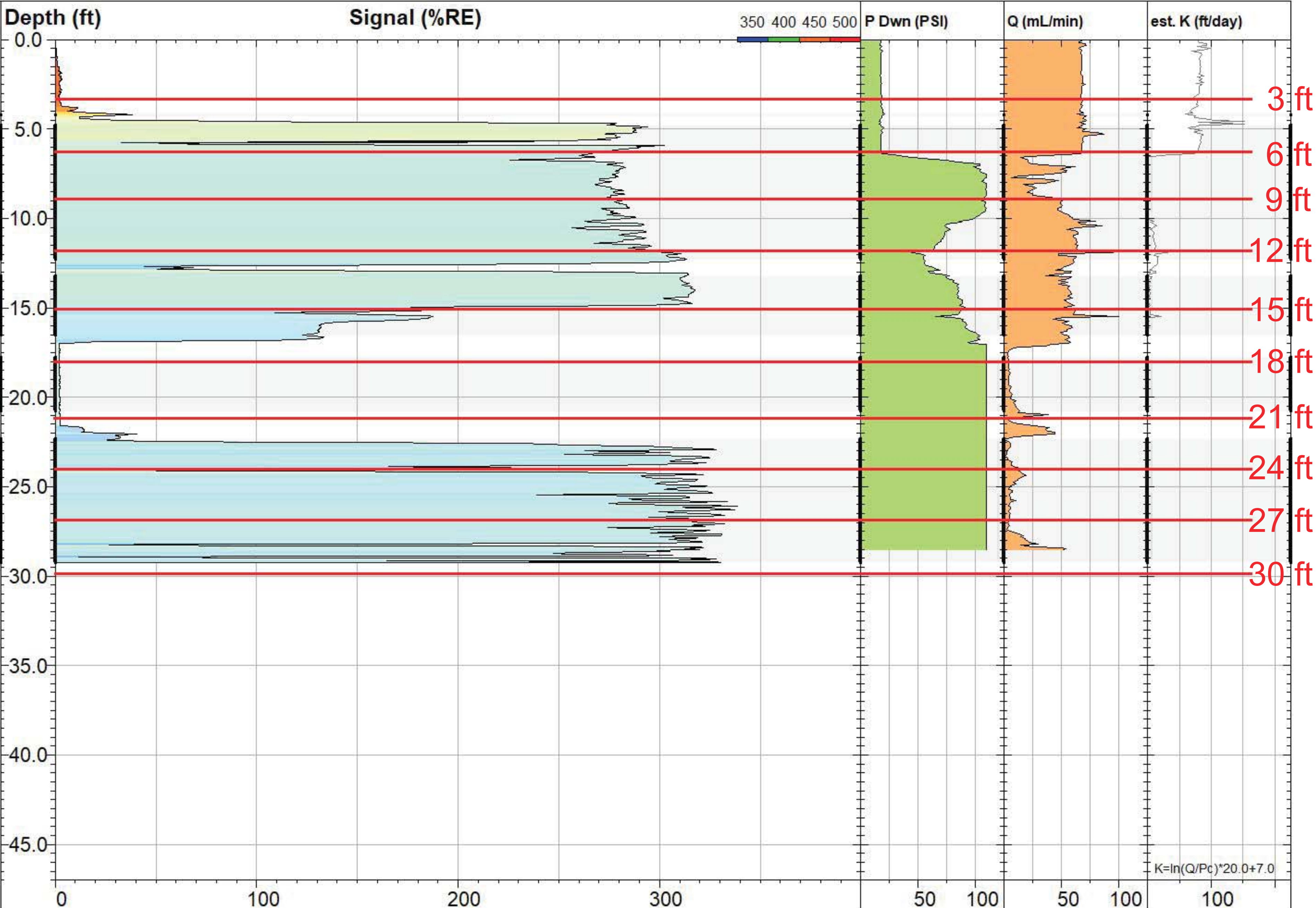
13.23 - 16.53 ft
237.0 %RE (s 84.4)



17.73 - 20.76 ft
2.2 %RE (s 0.0)



22.31 - 29.24 ft
280.8 %RE (s 77.7)



$K = \ln(Q/Pc) * 20.0 + 7.0$



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MKTF-LIF-37

Site:
Eastern Boundry LIF Investigation

Client / Job:
Trihydro / 0408.19

Operator / Unit:
DS / CP / UVOST1003

Y Coord.(Lat-N) / System:
Unavailable / NA

X Coord.(Lng-E) / Fix:
Unavailable / NA

Elevation:
Unavailable

UVOST® By Dakota

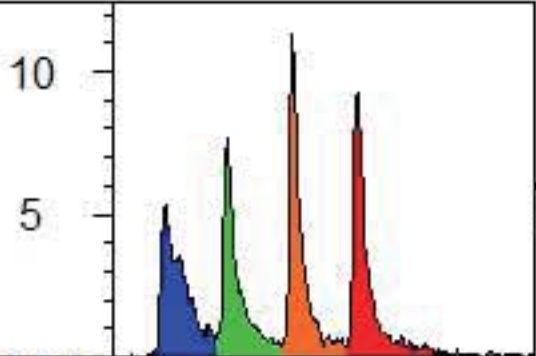
www.DakotaTechnologies.com

Final depth:
29.24 ft

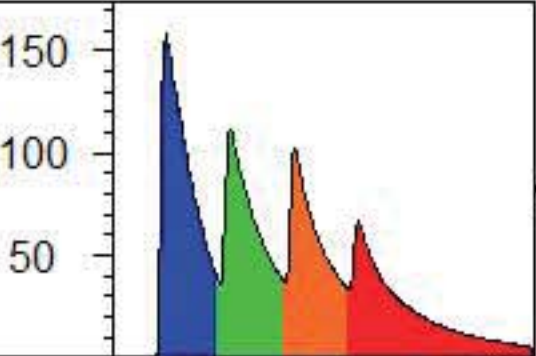
Max signal:
338.7 %RE @ 26.08 ft

Date & Time:
2019-11-19 15:14 MST

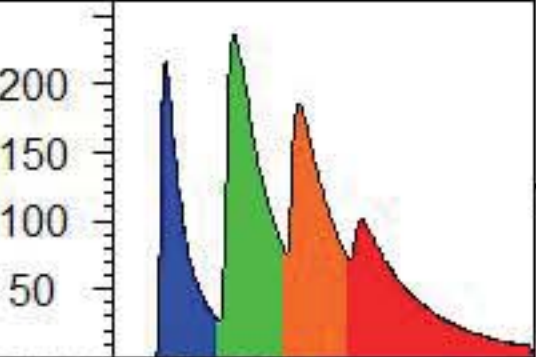
Callouts



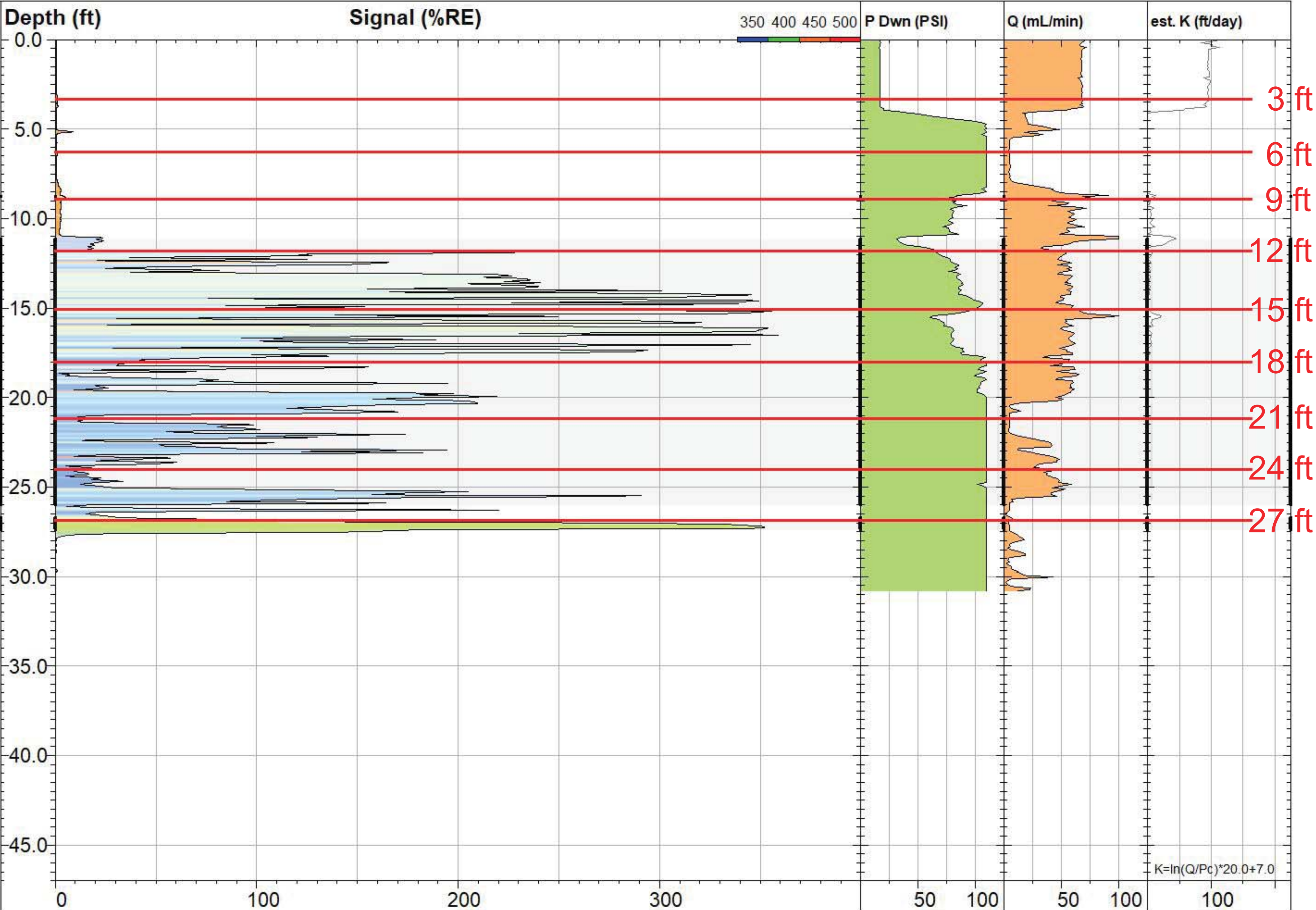
8.75 ft
4.4 %RE



11.16 - 26.00 ft
129.3 %RE (s 106.3)



26.72 - 27.40 ft
220.3 %RE (s 128.6)



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MKTF-LIF-42

Site:
Eastern Boundry LIF Investigation

Client / Job:
Trihydro / 0408.19

Operator / Unit:
DS / CP / UVOST1003

Y Coord.(Lat-N) / System:
Unavailable / NA

X Coord.(Lng-E) / Fix:
Unavailable / NA

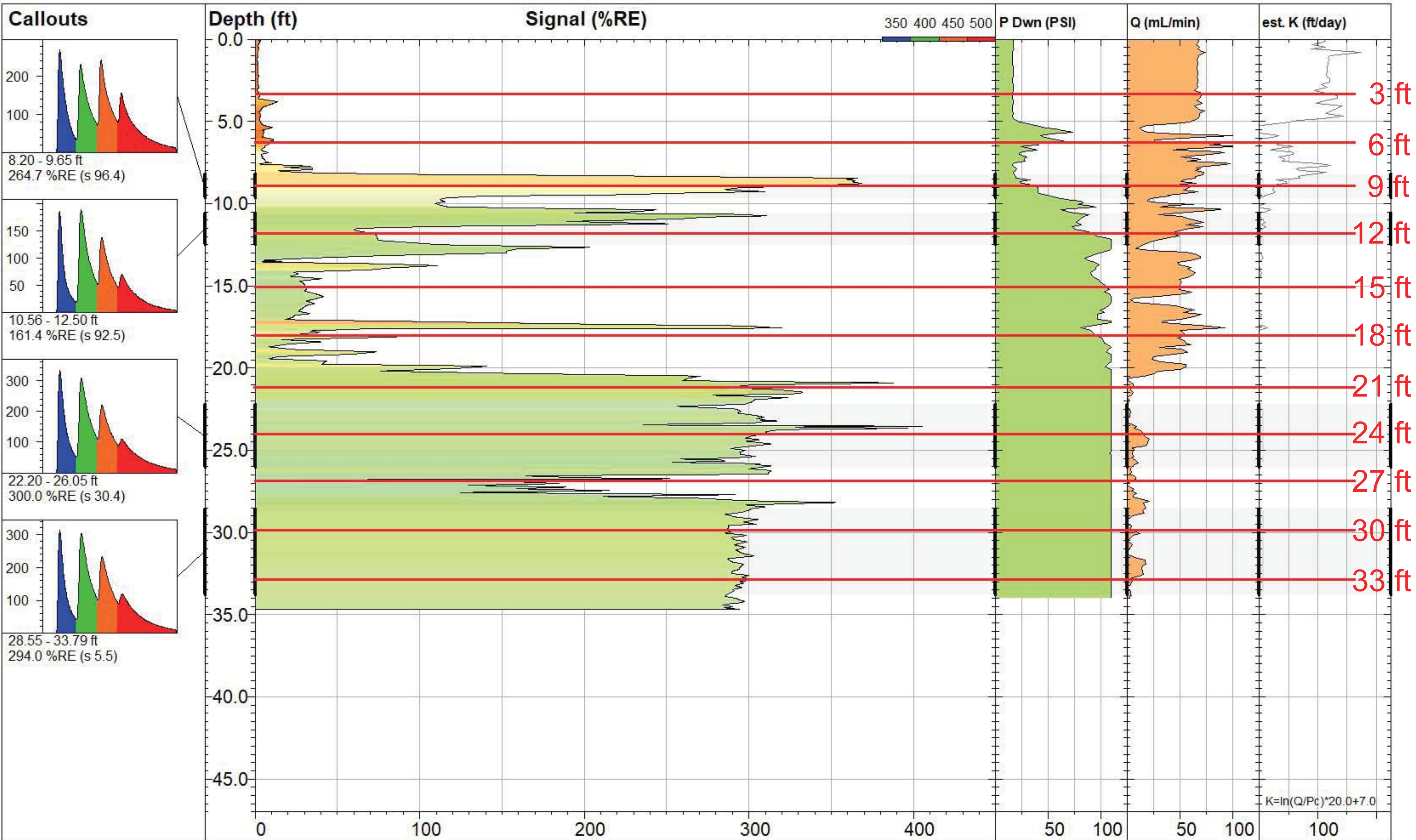
Elevation:
Unavailable

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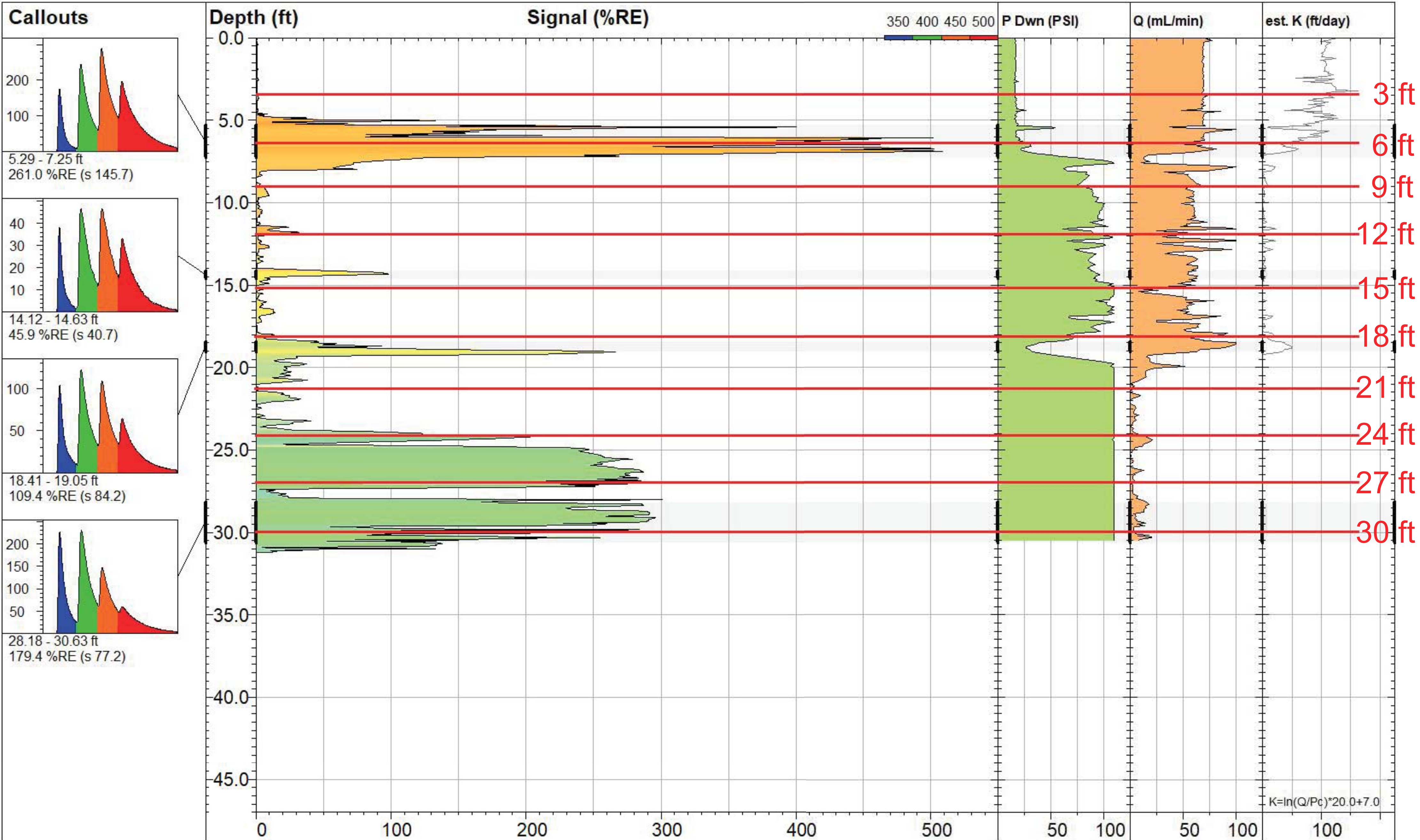
Final depth:
31.51 ft

Max signal:
366.7 %RE @ 16.50 ft

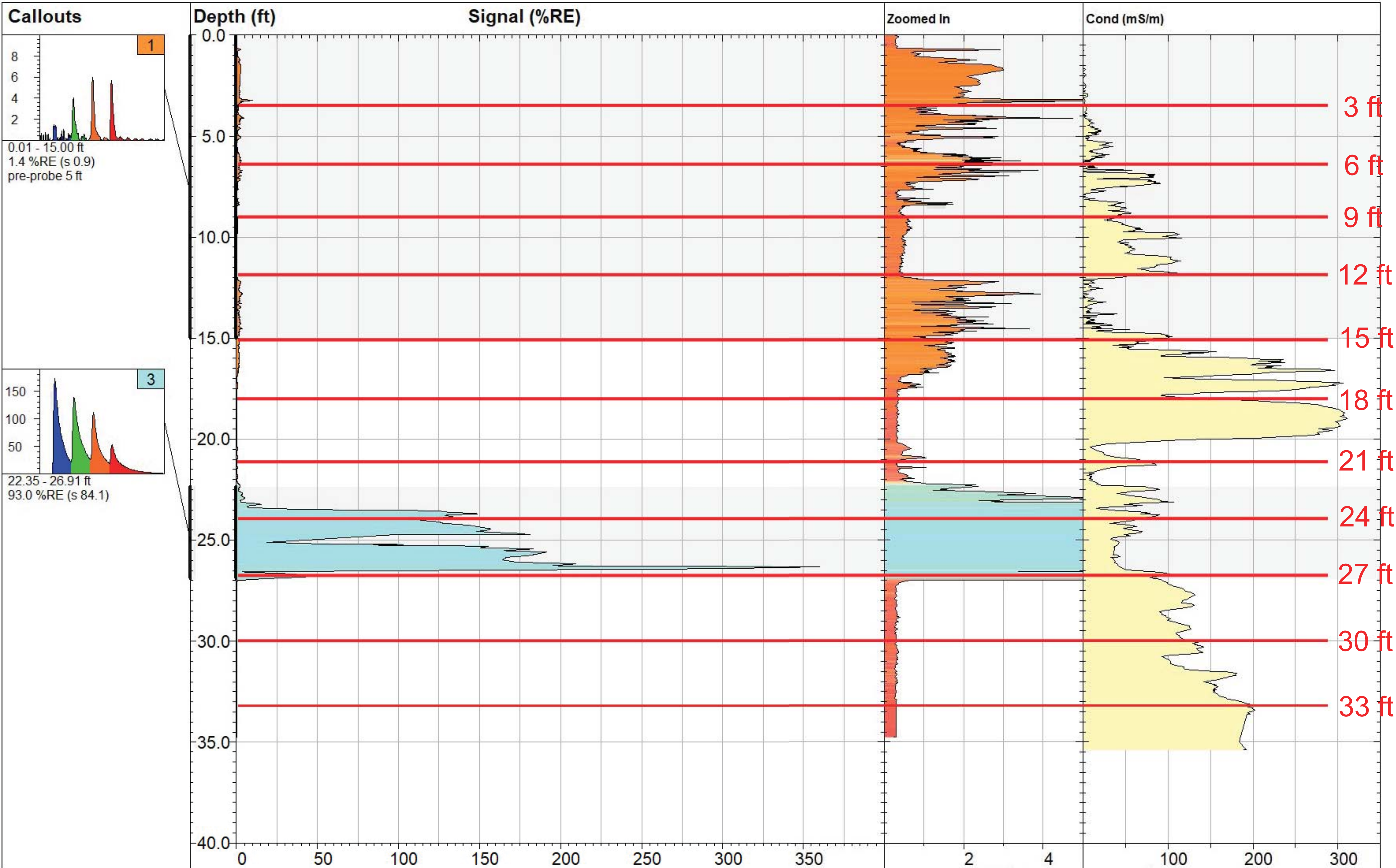
Date & Time:
2019-11-19 15:53 MST



 www.DAKOTATECHNOLOGIES.COM	MKTF-LIF-46		UVOST® By Dakota www.DakotaTechnologies.com
	Site: Eastern Boundry LIF Investigation	Y Coord.(Lat-N) / System: Unavailable / NA	Final depth: 34.66 ft
	Client / Job: Trihydro / 0408.19	X Coord.(Lng-E) / Fix: Unavailable / NA	Max signal: 409.2 %RE @ 23.54 ft
	Operator / Unit: BG / CP / UVOST1003	Elevation: Unavailable	Date & Time: 2019-11-24 13:15 MST



 www.dakotatechnologies.com	MKTF-LIF-47		UVOST® By Dakota www.DakotaTechnologies.com	
	Site: Eastern Boundry LIF Investigation	Y Coord.(Lat-N) / System: Unavailable / NA	Final depth: 31.20 ft	
	Client / Job: Trihydro / 0408.19	X Coord.(Lng-E) / Fix: Unavailable / NA	Max signal: 515.2 %RE @ 6.05 ft	
	Operator / Unit: DS / CP / UVOST1003	Elevation: Unavailable	Date & Time: 2019-11-22 13:45 MST	



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MKTF-LIF-62

Site:
Marathon Marketing Tank Farm

Client / Job:
TriHydro / 0049.21

Operator / Unit:
A. Nagle / UVOST1613

Y Coord.(Lat/North):
Unavailable

X Coord.(Long/East):
Unavailable

Elevation:
Unavailable

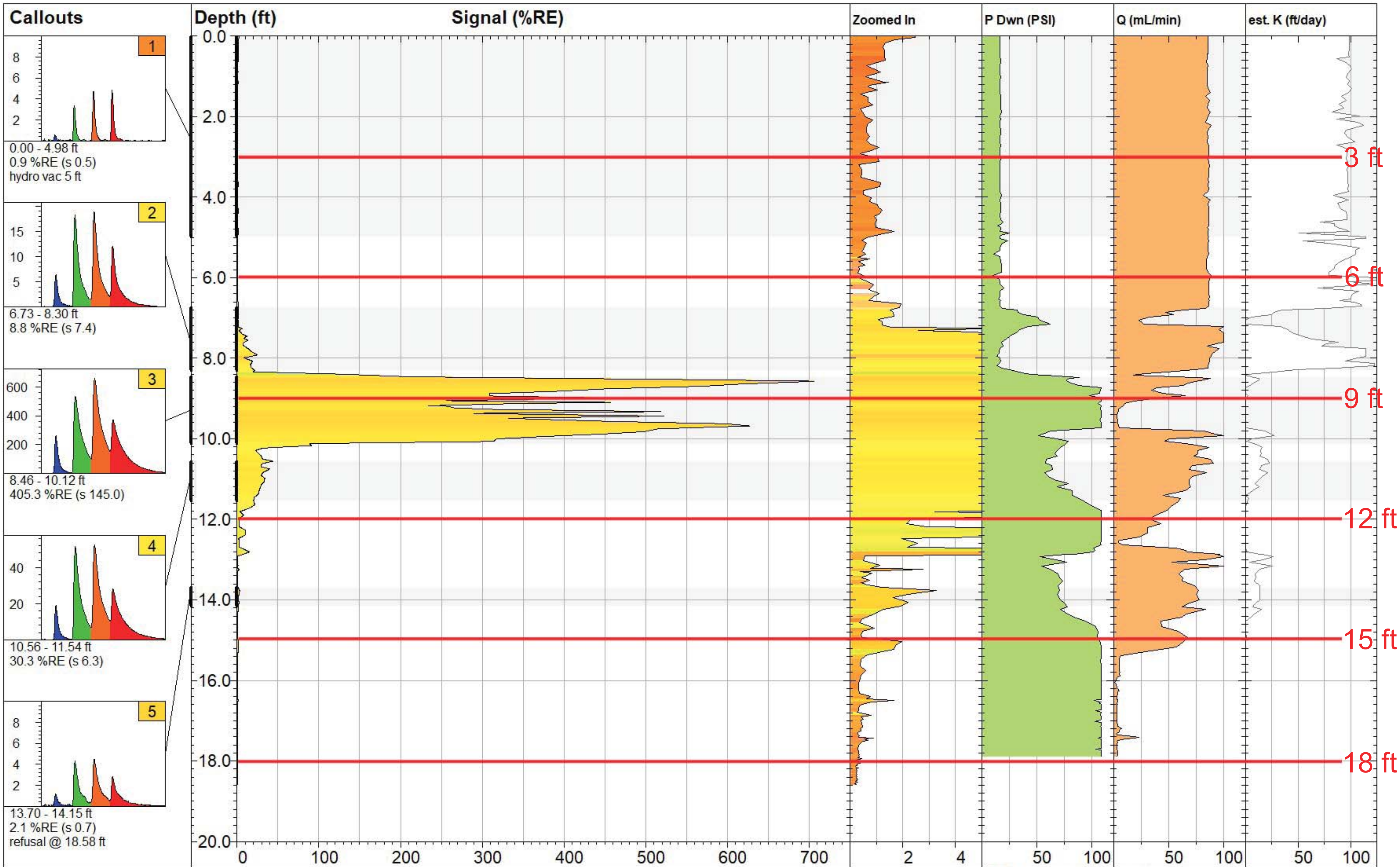
UVOST® By Dakota

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Final Depth:
34.76 ft

Max Signal:
361.3 %RE @ 26.32 ft

Date & Time:
2021-02-03 11:18 MST



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MKTF-LIF-66

Site:
Marathon Marketing Tank Farm

Client / Job:
TriHydro / 0049.21

Operator / Unit:
A. Nagle / UVOST1613

Y Coord.(Lat/North):
Unavailable

X Coord.(Long/East):
Unavailable

Elevation:
Unavailable

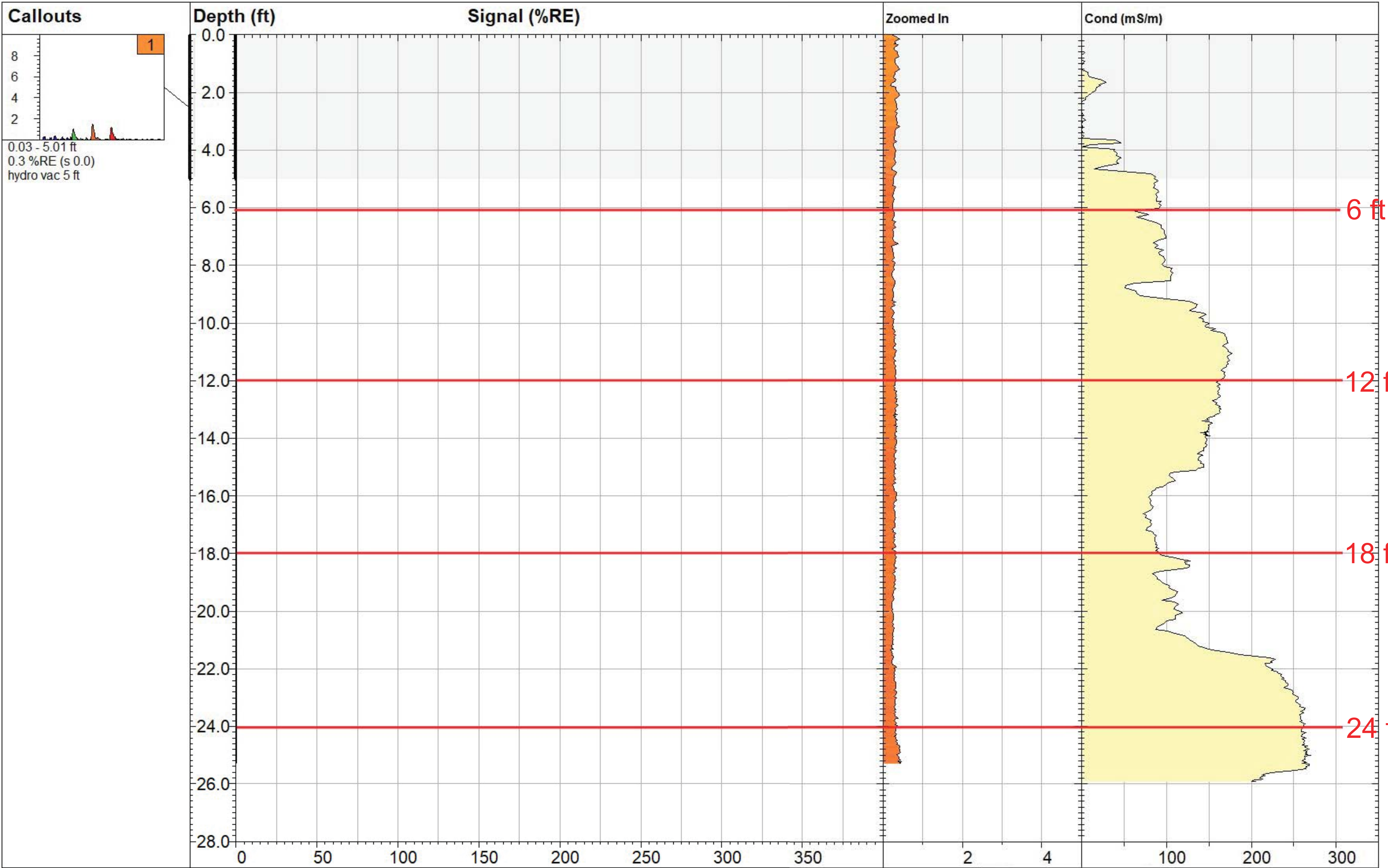
UVOST® By Dakota

www.DakotaTechnologies.com

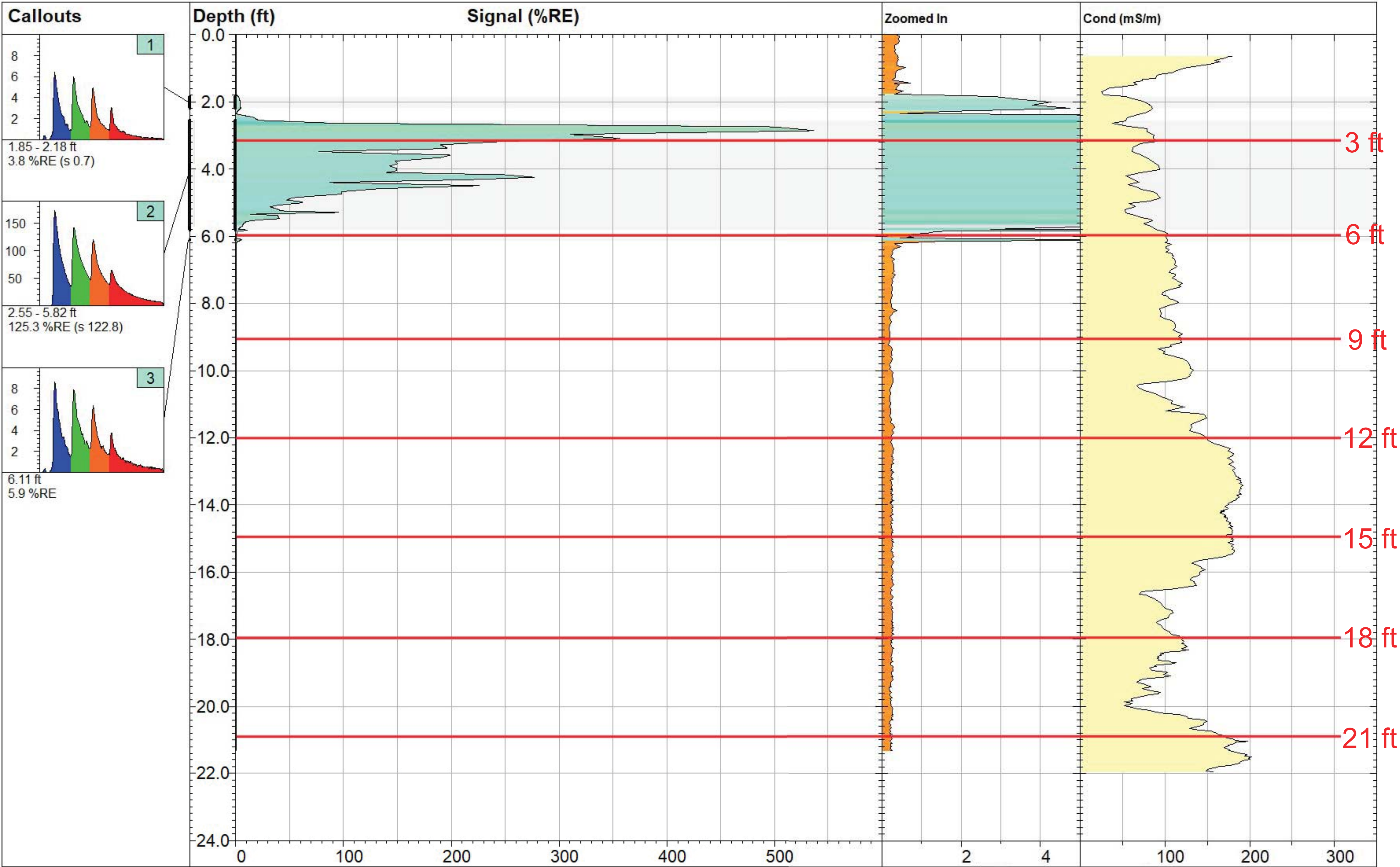
Final Depth:
18.58 ft

Max Signal:
708.9 %RE @ 8.57 ft

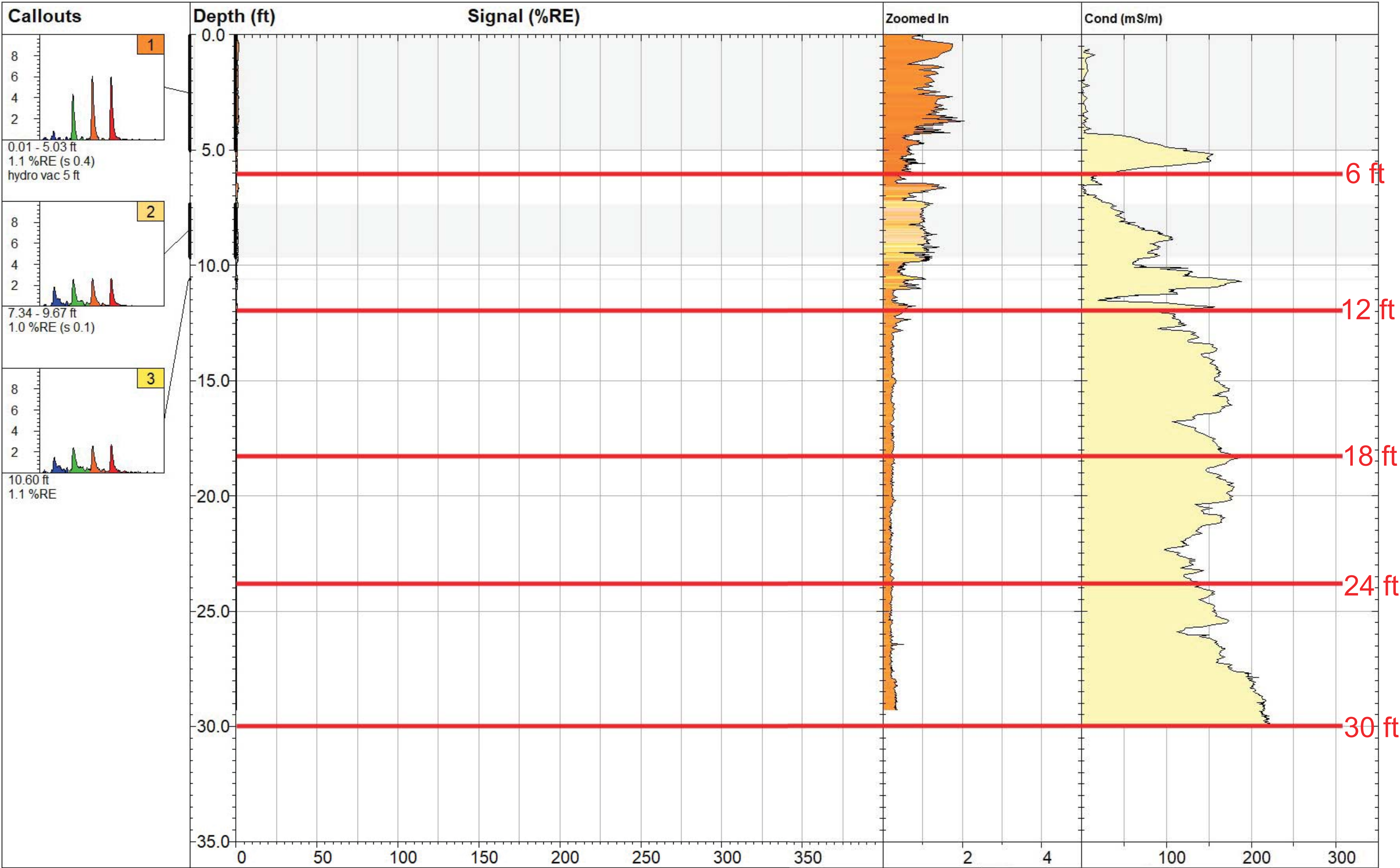
Date & Time:
2021-02-01 14:28 MST



 www.DAKOTATECHNOLOGIES.COM	MKTF-LIF-71		UVOST® By Dakota www.DakotaTechnologies.com	
	Site: Marathon Marketing Tank Farm	Y Coord.(Lat/North): Unavailable	Final Depth: 25.29 ft	
	Client / Job: TriHydro / 0049.21	X Coord.(Long/East): Unavailable	Max Signal: 0.5 %RE @ 25.24 ft	
	Operator / Unit: A. Nagle / UVOST1613	Elevation: Unavailable	Date & Time: 2021-02-04 07:54 MST	



 www.dakotatechnologies.com	MKTF-LIF-74		UVOST® By Dakota www.DakotaTechnologies.com	
	Site: Marathon Marketing Tank Farm	Y Coord.(Lat/North): Unavailable	Final Depth: 21.33 ft	
	Client / Job: TriHydro / 0049.21	X Coord.(Long/East): Unavailable	Max Signal: 537.6 %RE @ 2.86 ft	
	Operator / Unit: A. Nagle / UVOST1613	Elevation: Unavailable	Date & Time: 2021-02-04 09:16 MST	



 www.DAKOTATECHNOLOGIES.COM	MKTF-LIF-78		UVOST® By Dakota www.DakotaTechnologies.com	
	Site: Marathon Marketing Tank Farm	Y Coord.(Lat/North): Unavailable	Final Depth: 29.29 ft	
	Client / Job: TriHydro / 0049.21	X Coord.(Long/East): Unavailable	Max Signal: 2.0 %RE @ 3.74 ft	
	Operator / Unit: A. Nagle / UVOST1613	Elevation: Unavailable	Date & Time: 2021-02-04 13:47 MST	



Revised Investigation Work Plan No. 2

Appendix F - Investigation Derived Waste Management Plan

**APPENDIX F. INVESTIGATION DERIVED WASTE MANAGEMENT PLAN
WESTERN REFINING SOUTHWEST, LLC.
MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO**

All investigation derived waste (IDW) will be properly characterized and disposed of in accordance with all federal, State, and local rules and regulations for storage, labeling, handling, transport, and disposal of waste. The IDW may be characterized for disposal based on the known or suspected contaminants potentially present in the waste.

A dedicated decontamination area will be setup prior to any sample collection activities. The decontamination pad will be constructed so as to capture and contain all decontamination fluids (e.g., wash water and rinse water) and foreign materials washed off the sampling equipment. The fluids will be pumped directly into suitable storage containers (e.g., labeled 55-gallon drums), which will be located at satellite accumulation areas until the fluids are disposed in the refinery wastewater treatment system upstream of the API separator. The solids captured in the decontamination pad will be shoveled into 55-gallon drums and stored at the designated satellite accumulation area pending proper waste characterization for off-site disposal.

Drill cuttings generated during installation of soil borings will be placed directly into 55-gallon drums and staged in the satellite accumulation area pending results of the waste characterization sampling. The portion of soil cores, which are not retained for analytical testing, will be placed into the same 55-gallon drums used to store the associated drill cuttings.

The solids (e.g., drill cuttings and used soil cores) will be characterized by testing to determine if there are any hazardous characteristics in accordance with 40 Code of Federal Regulations Part 261. This includes tests for ignitability, corrosivity, reactivity, and toxicity. If the materials are not characteristically hazardous, then further testing will be performed pursuant to the requirements of the facility to which the materials will be transported. Depending upon the results of analyses for individual investigation soil samples, additional analyses may include volatile organic carbons, total petroleum hydrocarbons, and polynuclear aromatic hydrocarbons.

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 197643

CONDITIONS

Operator: Western Refining Southwest LLC 539 South Main Street Findlay, OH 45840	OGRID: 267595
	Action Number: 197643
	Action Type: [UF-DP] Discharge Permit (DISCHARGE PERMIT)

CONDITIONS

Created By	Condition	Condition Date
scwells	Accepted for Record Retention Purposes-Only	3/15/2023